

Atomic Multipoles (spinful JML basis)

$$\begin{aligned} \text{bra:} &= |\frac{1}{2}, \frac{1}{2}; s\rangle, |\frac{1}{2}, -\frac{1}{2}; s\rangle \\ \text{ket:} &= |\frac{1}{2}, \frac{1}{2}; s\rangle, |\frac{1}{2}, -\frac{1}{2}; s\rangle \end{aligned}$$

Table 1: (s,s) block.

No.	multipole	matrix
1	$\mathbb{Q}_{0,0}^{(a)}$	$\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$
2	$\mathbb{M}_{1,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\sqrt{2} \\ 0 & 0 \end{pmatrix}$
3	$\mathbb{M}_{1,0}^{(1,-1;a)}$	$\begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$
4	$\mathbb{M}_{1,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 \\ \sqrt{2} & 0 \end{pmatrix}$

$$\begin{aligned} \text{bra:} &= |\frac{1}{2}, \frac{1}{2}; s\rangle, |\frac{1}{2}, -\frac{1}{2}; s\rangle \\ \text{ket:} &= |\frac{1}{2}, \frac{1}{2}; p\rangle, |\frac{1}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, \frac{3}{2}; p\rangle, |\frac{3}{2}, \frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{3}{2}; p\rangle \end{aligned}$$

Table 2: (s,p) block.

No.	multipole	matrix
5	$\mathbb{Q}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} \end{pmatrix}$
6	$\mathbb{Q}_{1,0}^{(a)}$	$\begin{pmatrix} -\frac{1}{3} & 0 & 0 & \frac{\sqrt{2}}{3} & 0 & 0 \\ 0 & \frac{1}{3} & 0 & 0 & \frac{\sqrt{2}}{3} & 0 \end{pmatrix}$

continued ...

Table 2

No.	multipole	matrix
7	$\mathbb{Q}_{1,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 & 0 \end{pmatrix}$
8	$\mathbb{Q}_{1,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & -\frac{2}{9} & 0 & 0 & -\frac{\sqrt{2}}{18} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{18} \end{pmatrix}$
9	$\mathbb{Q}_{1,0}^{(1,0;a)}$	$\begin{pmatrix} \frac{\sqrt{2}}{9} & 0 & 0 & \frac{1}{9} & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{9} & 0 & 0 & \frac{1}{9} & 0 \end{pmatrix}$
10	$\mathbb{Q}_{1,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{6}}{18} & 0 & 0 & 0 \\ \frac{2}{9} & 0 & 0 & -\frac{\sqrt{2}}{18} & 0 & 0 \end{pmatrix}$
11	$\mathbb{G}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
12	$\mathbb{G}_{2,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{6} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{18} \end{pmatrix}$
13	$\mathbb{G}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{3}i}{9} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{9} & 0 \end{pmatrix}$
14	$\mathbb{G}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{6}i}{18} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{6} & 0 & 0 \end{pmatrix}$
15	$\mathbb{G}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{9} & 0 & 0 & 0 \end{pmatrix}$
16	$\mathbb{G}_{0,0}^{(1,1;a)}$	$\begin{pmatrix} -\frac{\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}i}{9} & 0 & 0 & 0 & 0 \end{pmatrix}$
17	$\mathbb{T}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{2}i}{9} & 0 & 0 & -\frac{i}{9} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{9} \end{pmatrix}$
18	$\mathbb{T}_{1,0}^{(a)}$	$\begin{pmatrix} -\frac{i}{9} & 0 & 0 & \frac{\sqrt{2}i}{9} & 0 & 0 \\ 0 & \frac{i}{9} & 0 & 0 & \frac{\sqrt{2}i}{9} & 0 \end{pmatrix}$

continued ...

Table 2

No.	multipole	matrix
19	$\mathbb{T}_{1,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{3}i}{9} & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{9} & 0 & 0 & -\frac{i}{9} & 0 & 0 \end{pmatrix}$
20	$\mathbb{T}_{1,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & \frac{2i}{3} & 0 & 0 & \frac{\sqrt{2}i}{6} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{6} \end{pmatrix}$
21	$\mathbb{T}_{1,0}^{(1,0;a)}$	$\begin{pmatrix} -\frac{\sqrt{2}i}{3} & 0 & 0 & -\frac{i}{3} & 0 & 0 \\ 0 & \frac{\sqrt{2}i}{3} & 0 & 0 & -\frac{i}{3} & 0 \end{pmatrix}$
22	$\mathbb{T}_{1,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{6}i}{6} & 0 & 0 & 0 \\ -\frac{2i}{3} & 0 & 0 & \frac{\sqrt{2}i}{6} & 0 & 0 \end{pmatrix}$
23	$\mathbb{M}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
24	$\mathbb{M}_{2,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{2} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{6} \end{pmatrix}$
25	$\mathbb{M}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{3}}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 \end{pmatrix}$
26	$\mathbb{M}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{6}}{6} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{2} & 0 & 0 \end{pmatrix}$
27	$\mathbb{M}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{3} & 0 & 0 & 0 \end{pmatrix}$
28	$\mathbb{M}_{0,0}^{(1,1;a)}$	$\begin{pmatrix} -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 \end{pmatrix}$

bra: $= |\frac{1}{2}, \frac{1}{2}; s\rangle, |\frac{1}{2}, -\frac{1}{2}; s\rangle$ ket: $= |\frac{3}{2}, \frac{3}{2}; d\rangle, |\frac{3}{2}, \frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{5}{2}; d\rangle, |\frac{5}{2}, \frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, -\frac{5}{2}; d\rangle$

Table 3: (s,d) block.

No.	multipole	matrix
29	$\mathbb{Q}_{2,2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 & \frac{1}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{5} \end{bmatrix}$
30	$\mathbb{Q}_{2,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{2}{5} & 0 \end{bmatrix}$
31	$\mathbb{Q}_{2,0}^{(a)}$	$\begin{bmatrix} 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 \end{bmatrix}$
32	$\mathbb{Q}_{2,-1}^{(a)}$	$\begin{bmatrix} \frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 \end{bmatrix}$
33	$\mathbb{Q}_{2,-2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 \\ \frac{2}{5} & 0 & 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 \end{bmatrix}$
34	$\mathbb{Q}_{2,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{\sqrt{6}}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{30} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{30} \end{bmatrix}$
35	$\mathbb{Q}_{2,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{3\sqrt{2}}{20} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{20} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{15} & 0 \end{bmatrix}$
36	$\mathbb{Q}_{2,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & \frac{\sqrt{3}}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{10} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{10} & 0 & 0 \end{bmatrix}$
37	$\mathbb{Q}_{2,-1}^{(1,0;a)}$	$\begin{bmatrix} -\frac{\sqrt{6}}{20} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{2}}{20} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{15} & 0 & 0 & 0 \end{bmatrix}$
38	$\mathbb{Q}_{2,-2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{30} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{30} & 0 & 0 & 0 & 0 \end{bmatrix}$
39	$\mathbb{G}_{3,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{10} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
40	$\mathbb{G}_{3,2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{6} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{30} \end{bmatrix}$

continued ...

Table 3

No.	multipole	matrix
41	$\mathbb{G}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{30} & 0 \end{pmatrix}$
42	$\mathbb{G}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{10} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{10} & 0 \end{pmatrix}$
43	$\mathbb{G}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{30} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{15} & 0 & 0 \end{pmatrix}$
44	$\mathbb{G}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{30} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{6} & 0 & 0 & 0 \end{pmatrix}$
45	$\mathbb{G}_{3,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{10} & 0 & 0 & 0 \end{pmatrix}$
46	$\mathbb{G}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{10}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
47	$\mathbb{G}_{1,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{\sqrt{5}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{5}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
48	$\mathbb{G}_{1,-1}^{(1,1;a)}$	$\begin{pmatrix} \frac{\sqrt{30}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
49	$\mathbb{T}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{i}{5} & 0 & 0 & 0 & 0 & \frac{i}{10} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{10} \end{pmatrix}$
50	$\mathbb{T}_{2,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{3}i}{10} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{10} & 0 & 0 \\ 0 & 0 & 0 & -\frac{i}{10} & 0 & 0 & 0 & 0 & -\frac{i}{5} & 0 \end{pmatrix}$
51	$\mathbb{T}_{2,0}^{(a)}$	$\begin{pmatrix} 0 & -\frac{\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{10} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{10} & 0 & 0 \end{pmatrix}$
52	$\mathbb{T}_{2,-1}^{(a)}$	$\begin{pmatrix} \frac{i}{10} & 0 & 0 & 0 & 0 & -\frac{i}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{10} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{10} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 3

No.	multipole	matrix
53	$\mathbb{T}_{2,-2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{10} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{i}{5} & 0 & 0 & 0 & 0 & \frac{i}{10} & 0 & 0 & 0 \end{bmatrix}$
54	$\mathbb{T}_{2,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & -\frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{15} \end{bmatrix}$
55	$\mathbb{T}_{2,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & \frac{3\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{10} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 \end{bmatrix}$
56	$\mathbb{T}_{2,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 \end{bmatrix}$
57	$\mathbb{T}_{2,-1}^{(1,0;a)}$	$\begin{bmatrix} \frac{\sqrt{6}i}{10} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 & 0 \end{bmatrix}$
58	$\mathbb{T}_{2,-2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{15} & 0 & 0 & 0 & 0 \end{bmatrix}$
59	$\mathbb{M}_{3,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
60	$\mathbb{M}_{3,2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{15} \end{bmatrix}$
61	$\mathbb{M}_{3,1}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{15} & 0 \end{bmatrix}$
62	$\mathbb{M}_{3,0}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{5} & 0 & 0 \end{bmatrix}$
63	$\mathbb{M}_{3,-1}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{15} & 0 & 0 & 0 \end{bmatrix}$
64	$\mathbb{M}_{3,-2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 3

No.	multipole	matrix
65	$\mathbb{M}_{3,-3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
66	$\mathbb{M}_{1,1}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{10}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}}{10} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
67	$\mathbb{M}_{1,0}^{(1,1;a)}$	$\begin{bmatrix} 0 & -\frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
68	$\mathbb{M}_{1,-1}^{(1,1;a)}$	$\begin{bmatrix} \frac{\sqrt{30}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

bra: $= |\frac{1}{2}, \frac{1}{2}; s\rangle, |\frac{1}{2}, -\frac{1}{2}; s\rangle$ ket: $= |\frac{5}{2}, \frac{5}{2}; f\rangle, |\frac{5}{2}, \frac{3}{2}; f\rangle, |\frac{5}{2}, \frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{3}{2}; f\rangle, |\frac{5}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{7}{2}; f\rangle, |\frac{7}{2}, \frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{3}{2}; f\rangle, |\frac{7}{2}, \frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{3}{2}; f\rangle, |\frac{7}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, -\frac{7}{2}; f\rangle$

Table 4: (s,f) block.

No.	multipole	matrix
69	$\mathbb{Q}_{3,3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{7} \end{bmatrix}$
70	$\mathbb{Q}_{3,2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 \end{bmatrix}$
71	$\mathbb{Q}_{3,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{2}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 & 0 \end{bmatrix}$
72	$\mathbb{Q}_{3,0}^{(a)}$	$\begin{bmatrix} 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{2}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{2}{7} & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 4

No.	multipole	matrix
73	$\mathbb{Q}_{3,-1}^{(a)}$	$\begin{bmatrix} 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 \end{bmatrix}$
74	$\mathbb{Q}_{3,-2}^{(a)}$	$\begin{bmatrix} -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
75	$\mathbb{Q}_{3,-3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
76	$\mathbb{Q}_{3,3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}}{70} \end{bmatrix}$
77	$\mathbb{Q}_{3,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{2}}{70} & 0 \end{bmatrix}$
78	$\mathbb{Q}_{3,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & -\frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{9}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{70} & 0 & 0 \end{bmatrix}$
79	$\mathbb{Q}_{3,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & \frac{6}{35} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{35} & 0 & 0 & 0 \end{bmatrix}$
80	$\mathbb{Q}_{3,-1}^{(1,0;a)}$	$\begin{bmatrix} 0 & -\frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9}{70} & 0 & 0 & 0 & 0 \end{bmatrix}$
81	$\mathbb{Q}_{3,-2}^{(1,0;a)}$	$\begin{bmatrix} \frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{70} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
82	$\mathbb{Q}_{3,-3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{70} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
83	$\mathbb{G}_{4,4}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
84	$\mathbb{G}_{4,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{10} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{70} \end{bmatrix}$

continued ...

Table 4

No.	multipole	matrix
85	$\mathbb{G}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}i}{70} & 0 \end{pmatrix}$
86	$\mathbb{G}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{70} & 0 & 0 \end{pmatrix}$
87	$\mathbb{G}_{4,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{35} & 0 & 0 & 0 \end{pmatrix}$
88	$\mathbb{G}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}i}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}i}{70} & 0 & 0 & 0 \end{pmatrix}$
89	$\mathbb{G}_{4,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{70} & 0 & 0 & 0 & 0 \end{pmatrix}$
90	$\mathbb{G}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{10} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
91	$\mathbb{G}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
92	$\mathbb{G}_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
93	$\mathbb{G}_{2,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{42}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{21}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
94	$\mathbb{G}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{3\sqrt{7}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{7}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
95	$\mathbb{G}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{21}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{42}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
96	$\mathbb{G}_{2,-2}^{(1,1;a)}$	$\begin{pmatrix} -\frac{\sqrt{105}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 4

No.	multipole	matrix
97	$\mathbb{T}_{3,3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{35} \end{bmatrix}$
98	$\mathbb{T}_{3,2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{35} & 0 \end{bmatrix}$
99	$\mathbb{T}_{3,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{35} & 0 & 0 \end{bmatrix}$
100	$\mathbb{T}_{3,0}^{(a)}$	$\begin{bmatrix} 0 & 0 & -\frac{3\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6i}{35} & 0 & 0 \end{bmatrix}$
101	$\mathbb{T}_{3,-1}^{(a)}$	$\begin{bmatrix} 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{35} & 0 & 0 & 0 & 0 \end{bmatrix}$
102	$\mathbb{T}_{3,-2}^{(a)}$	$\begin{bmatrix} -\frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \end{bmatrix}$
103	$\mathbb{T}_{3,-3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{35} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
104	$\mathbb{T}_{3,3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{14} \end{bmatrix}$
105	$\mathbb{T}_{3,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 \end{bmatrix}$
106	$\mathbb{T}_{3,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{14} & 0 & 0 \end{bmatrix}$
107	$\mathbb{T}_{3,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 \end{bmatrix}$
108	$\mathbb{T}_{3,-1}^{(1,0;a)}$	$\begin{bmatrix} 0 & \frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{3i}{14} & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 4

No.	multipole	matrix
109	$T_{3,-2}^{(1,0;a)}$	$\begin{bmatrix} -\frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
110	$T_{3,-3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
111	$M_{4,4}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
112	$M_{4,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{2} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{14} \end{bmatrix}$
113	$M_{4,2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{14} & 0 \end{bmatrix}$
114	$M_{4,1}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{14} & 0 & 0 \end{bmatrix}$
115	$M_{4,0}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{7} & 0 & 0 & 0 \end{bmatrix}$
116	$M_{4,-1}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}}{14} & 0 & 0 & 0 \end{bmatrix}$
117	$M_{4,-2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{14} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
118	$M_{4,-3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{2} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
119	$M_{4,-4}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
120	$M_{2,2}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 4

No.	multipole	matrix
121	$\mathbb{M}_{2,1}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
122	$\mathbb{M}_{2,0}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
123	$\mathbb{M}_{2,-1}^{(1,1;a)}$	$\begin{bmatrix} 0 & \frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
124	$\mathbb{M}_{2,-2}^{(1,1;a)}$	$\begin{bmatrix} -\frac{\sqrt{105}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

bra: $= |\frac{1}{2}, \frac{1}{2}; p\rangle, |\frac{1}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, \frac{3}{2}; p\rangle, |\frac{3}{2}, \frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{3}{2}; p\rangle$ ket: $= |\frac{1}{2}, \frac{1}{2}; p\rangle, |\frac{1}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, \frac{3}{2}; p\rangle, |\frac{3}{2}, \frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{3}{2}; p\rangle$

Table 5: (p,p) block.

No.	multipole	matrix
125	$\mathbb{Q}_{0,0}^{(a)}$	$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix}$

continued ...

Table 5

No.	multipole	matrix
126	$\mathbb{Q}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{2}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2}{5} & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
127	$\mathbb{Q}_{2,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{1}{5} \\ -\frac{1}{5} & 0 & 0 & \frac{\sqrt{2}}{5} & 0 & 0 \\ 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
128	$\mathbb{Q}_{2,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{5} & 0 \\ 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{5} & 0 & 0 & \frac{1}{5} & 0 & 0 \\ 0 & \frac{\sqrt{2}}{5} & 0 & 0 & \frac{1}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{1}{5} \end{pmatrix}$
129	$\mathbb{Q}_{2,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{1}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 \\ -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{5} & 0 & 0 & \frac{\sqrt{2}}{5} & 0 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
130	$\mathbb{Q}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 \\ -\frac{2}{5} & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 \end{pmatrix}$
131	$\mathbb{Q}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{3} & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
132	$\mathbb{Q}_{2,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{2} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{6} \\ -\frac{\sqrt{6}}{6} & 0 & 0 & -\frac{2\sqrt{3}}{3} & 0 & 0 \\ 0 & \frac{\sqrt{2}}{2} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
133	$\mathbb{Q}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{3} & 0 \\ 0 & 0 & \frac{\sqrt{6}}{3} & 0 & 0 & 0 \\ -\frac{\sqrt{3}}{3} & 0 & 0 & -\frac{\sqrt{6}}{3} & 0 & 0 \\ 0 & \frac{\sqrt{3}}{3} & 0 & 0 & -\frac{\sqrt{6}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{3} \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
134	$\mathbb{Q}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{6}}{6} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{2} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{6} & 0 & 0 & -\frac{2\sqrt{3}}{3} & 0 \end{pmatrix}$
135	$\mathbb{Q}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{3} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{3} & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 \end{pmatrix}$
136	$\mathbb{Q}_{0,0}^{(1,1;a)}$	$\begin{pmatrix} -\frac{2\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}}{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{3} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{3} \end{pmatrix}$
137	$\mathbb{G}_{1,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{2} \\ \frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
138	$\mathbb{G}_{1,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & -i & 0 & 0 \\ 0 & 0 & 0 & 0 & -i & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ i & 0 & 0 & 0 & 0 & 0 \\ 0 & i & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
139	$\mathbb{G}_{1,-1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{6}i}{2} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 \end{bmatrix}$
140	$\mathbb{T}_{2,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
141	$\mathbb{T}_{2,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{10} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{10} \\ -\frac{\sqrt{6}i}{10} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{2}i}{10} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 5

No.	multipole	matrix
142	$\mathbb{T}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{3}i}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
143	$\mathbb{T}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{6}i}{10} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}i}{10} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{10} & 0 & 0 & 0 & 0 \end{pmatrix}$
144	$\mathbb{T}_{2,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
145	$\mathbb{M}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} \\ \frac{\sqrt{3}}{3} & 0 & 0 & -\frac{\sqrt{6}}{3} & 0 & 0 \\ 0 & \frac{1}{3} & 0 & 0 & -\frac{2\sqrt{2}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
146	$\mathbb{M}_{1,0}^{(a)}$	$\begin{pmatrix} \frac{2}{3} & 0 & 0 & \frac{\sqrt{2}}{3} & 0 & 0 \\ 0 & -\frac{2}{3} & 0 & 0 & \frac{\sqrt{2}}{3} & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 \\ \frac{\sqrt{2}}{3} & 0 & 0 & \frac{1}{3} & 0 & 0 \\ 0 & \frac{\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -1 \end{pmatrix}$
147	$\mathbb{M}_{1,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 \\ \frac{2\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{3} & 0 & 0 & 0 \\ \frac{1}{3} & 0 & 0 & \frac{2\sqrt{2}}{3} & 0 & 0 \\ 0 & \frac{\sqrt{3}}{3} & 0 & 0 & \frac{\sqrt{6}}{3} & 0 \end{pmatrix}$
148	$\mathbb{M}_{1,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{2}}{3} & 0 & 0 & \frac{2}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} \\ -\frac{2\sqrt{3}}{3} & 0 & 0 & -\frac{\sqrt{6}}{3} & 0 & 0 \\ 0 & -\frac{2}{3} & 0 & 0 & -\frac{2\sqrt{2}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
149	$\mathbb{M}_{1,0}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{1}{3} & 0 & 0 & -\frac{2\sqrt{2}}{3} & 0 & 0 \\ 0 & \frac{1}{3} & 0 & 0 & -\frac{2\sqrt{2}}{3} & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}}{3} & 0 & 0 & \frac{1}{3} & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{3} & 0 & 0 & -\frac{1}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & -1 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
150	$\mathbb{M}_{1,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{3} & 0 & 0 & \frac{2}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{3} & 0 & 0 & 0 \\ -\frac{2}{3} & 0 & 0 & \frac{2\sqrt{2}}{3} & 0 & 0 \\ 0 & -\frac{2\sqrt{3}}{3} & 0 & 0 & \frac{\sqrt{6}}{3} & 0 \end{pmatrix}$
151	$\mathbb{M}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
152	$\mathbb{M}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
153	$\mathbb{M}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{25} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
154	$\mathbb{M}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{15}}{25} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{25} \end{pmatrix}$
155	$\mathbb{M}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{5}}{25} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 \end{pmatrix}$
156	$\mathbb{M}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 \end{pmatrix}$
157	$\mathbb{M}_{3,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 5

No.	multipole	matrix
158	$M_{1,1}^{(1,1;a)}$	$\begin{bmatrix} 0 & -\frac{4\sqrt{5}}{15} & 0 & 0 & \frac{\sqrt{10}}{30} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{30} \\ -\frac{\sqrt{30}}{30} & 0 & 0 & \frac{2\sqrt{15}}{75} & 0 & 0 \\ 0 & -\frac{\sqrt{10}}{30} & 0 & 0 & \frac{4\sqrt{5}}{75} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{75} \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
159	$M_{1,0}^{(1,1;a)}$	$\begin{bmatrix} \frac{2\sqrt{10}}{15} & 0 & 0 & -\frac{\sqrt{5}}{15} & 0 & 0 \\ 0 & -\frac{2\sqrt{10}}{15} & 0 & 0 & -\frac{\sqrt{5}}{15} & 0 \\ 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 & 0 \\ -\frac{\sqrt{5}}{15} & 0 & 0 & -\frac{\sqrt{10}}{75} & 0 & 0 \\ 0 & -\frac{\sqrt{5}}{15} & 0 & 0 & \frac{\sqrt{10}}{75} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{25} \end{bmatrix}$
160	$M_{1,-1}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{30}}{30} & 0 & 0 & 0 \\ \frac{4\sqrt{5}}{15} & 0 & 0 & \frac{\sqrt{10}}{30} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{75} & 0 & 0 & 0 \\ -\frac{\sqrt{10}}{30} & 0 & 0 & -\frac{4\sqrt{5}}{75} & 0 & 0 \\ 0 & -\frac{\sqrt{30}}{30} & 0 & 0 & -\frac{2\sqrt{15}}{75} & 0 \end{bmatrix}$

bra: $= |\frac{1}{2}, \frac{1}{2}; p\rangle, |\frac{1}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, \frac{3}{2}; p\rangle, |\frac{3}{2}, \frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{3}{2}; p\rangle$ ket: $= |\frac{3}{2}, \frac{3}{2}; d\rangle, |\frac{3}{2}, \frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{5}{2}; d\rangle, |\frac{5}{2}, \frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, -\frac{5}{2}; d\rangle$

Table 6: (p,d) block.

No.	multipole	matrix
161	$\mathbb{Q}_{1,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & -\frac{1}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} \end{bmatrix}$
162	$\mathbb{Q}_{1,0}^{(a)}$	$\begin{bmatrix} 0 & \frac{\sqrt{2}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 \\ 0 & -\frac{1}{15} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 \\ 0 & 0 & \frac{1}{15} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & 0 & \frac{2}{5} \end{bmatrix}$
163	$\mathbb{Q}_{1,-1}^{(a)}$	$\begin{bmatrix} -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{1}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 \end{bmatrix}$
164	$\mathbb{Q}_{3,3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
165	$\mathbb{Q}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} \\ 0 & 0 & \frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 \\ 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 \\ \frac{3}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 \\ 0 & -\frac{9}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & \frac{9}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 \\ 0 & 0 & 0 & -\frac{3}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{6}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{6}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 \\ 0 & 0 & \frac{6}{35} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 \end{pmatrix}$
167	$\mathbb{Q}_{3,0}^{(a)}$	
168	$\mathbb{Q}_{3,-1}^{(a)}$	

continued ...

Table 6

No.	multipole	matrix
169	$\mathbb{Q}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 \end{pmatrix}$
170	$\mathbb{Q}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$
171	$\mathbb{Q}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
172	$\mathbb{Q}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{9} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{45} \\ 0 & 0 & \frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{16}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
173	$\mathbb{Q}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{45} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{45} & 0 \\ 0 & -\frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{25} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}}{25} & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{225} & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & \frac{56\sqrt{15}}{225} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{15} \end{pmatrix}$
174	$\mathbb{Q}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{15} & 0 & 0 \\ \frac{2\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}}{75} & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{75} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{75} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}}{75} & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}}{75} & 0 \end{pmatrix}$
175	$\mathbb{Q}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & \frac{56\sqrt{15}}{225} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}}{25} & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{225} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{25} & 0 & 0 \end{pmatrix}$
176	$\mathbb{Q}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{45} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{9} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{16}{15} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
177	$\mathbb{Q}_{3,-3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{15} & 0 & 0 & 0 & 0 \end{bmatrix}$
178	$\mathbb{Q}_{1,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{2}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{9} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{15} & 0 & 0 & 0 \\ 0 & 0 & -\frac{16}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{15} \end{bmatrix}$
179	$\mathbb{Q}_{1,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & -\frac{2}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{2}}{15} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{15} & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{2}}{45} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{15} & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{2}}{45} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{15} & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{2}}{15} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{15} \end{bmatrix}$
180	$\mathbb{Q}_{1,-1}^{(1,0;a)}$	$\begin{bmatrix} \frac{\sqrt{6}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{2}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{16}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{15} & 0 & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
181	$\mathbb{Q}_{3,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{350} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
182	$\mathbb{Q}_{3,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{105} \\ 0 & 0 & -\frac{2\sqrt{30}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{175} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{30}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{1050} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{210} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
183	$\mathbb{Q}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{105} & 0 \\ 0 & \frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{350} & 0 & 0 & 0 \\ 0 & 0 & -\frac{12}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{1050} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{150} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{350} \end{pmatrix}$
184	$\mathbb{Q}_{3,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{35} & 0 \\ -\frac{2\sqrt{3}}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{175} & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{3}}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{6\sqrt{3}}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{175} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{175} & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
185	$\mathbb{Q}_{3,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{350} & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{150} & 0 & 0 & 0 & 0 \\ 0 & \frac{12}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{1050} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{350} & 0 & 0 \end{pmatrix}$
186	$\mathbb{Q}_{3,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{210} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{30}}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{1050} & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{30}}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{175} & 0 & 0 & 0 \end{pmatrix}$
187	$\mathbb{Q}_{3,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{1}{70} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{350} & 0 & 0 & 0 & 0 \end{pmatrix}$
188	$\mathbb{Q}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}}{5} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{5}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{25} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{5} \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
189	$\mathbb{Q}_{1,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{6\sqrt{10}}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{25} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{10}}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{10}}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{10}}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{25} & 0 \end{pmatrix}$
190	$\mathbb{Q}_{1,-1}^{(1,1;a)}$	$\begin{pmatrix} \frac{\sqrt{30}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{5}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{25} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 \end{pmatrix}$
191	$\mathbb{G}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{4i}{15} & 0 & 0 & 0 & 0 & \frac{4i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{45} \\ 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
192	$\mathbb{G}_{2,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{45} & 0 & 0 \\ 0 & 0 & 0 & \frac{2i}{15} & 0 & 0 & 0 & 0 & -\frac{8i}{45} & 0 \\ 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{9} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{45} \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
193	$\mathbb{G}_{2,0}^{(a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 \\ -\frac{2i}{15} & 0 & 0 & 0 & 0 & \frac{4i}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{2i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 \\ 0 & 0 & \frac{2i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 & 0 & 0 & -\frac{4i}{15} & 0 \end{pmatrix}$
194	$\mathbb{G}_{2,-1}^{(a)}$	$\begin{pmatrix} -\frac{2i}{15} & 0 & 0 & 0 & 0 & -\frac{8i}{45} & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{45} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{9} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 \end{pmatrix}$
195	$\mathbb{G}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{45} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4i}{15} & 0 & 0 & 0 & 0 & \frac{4i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{45} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{2}i}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{45} & 0 & 0 & 0 \end{pmatrix}$
196	$\mathbb{G}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{45} \\ 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
197	$\mathbb{G}_{2,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{45} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{45} & 0 \\ 0 & -\frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{9} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{15} \end{pmatrix}$
198	$\mathbb{G}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{15} & 0 & 0 \\ \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{2i}{15} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{15} & 0 \end{pmatrix}$
199	$\mathbb{G}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} \frac{\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{9} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{5} & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 \end{pmatrix}$
200	$\mathbb{G}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
201	$\mathbb{G}_{4,4}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
202	$\mathbb{G}_{4,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
203	$\mathbb{G}_{4,2}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}i}{245} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{210}i}{490} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{490} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
204	$\mathbb{G}_{4,1}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}i}{490} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}i}{490} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}i}{490} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{490} \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
205	$\mathbb{G}_{4,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{245} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{245} & 0 \end{pmatrix}$
206	$\mathbb{G}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{490} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{105}i}{490} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{210}i}{490} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{70}i}{490} & 0 \end{pmatrix}$
207	$\mathbb{G}_{4,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{490} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}i}{490} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}i}{245} & 0 & 0 \end{pmatrix}$
208	$\mathbb{G}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{70} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{70} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
209	$\mathbb{G}_{4,-4}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
210	$\mathbb{G}_{2,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{45} \\ 0 & 0 & -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
211	$\mathbb{G}_{2,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & \frac{16\sqrt{3}i}{45} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & \frac{16\sqrt{6}i}{45} & 0 \\ 0 & \frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{9} & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{15} \end{bmatrix}$
212	$\mathbb{G}_{2,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{2}i}{15} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{2}i}{15} & 0 & 0 \\ -\frac{4\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & \frac{2i}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
213	$\mathbb{G}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} -\frac{\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & \frac{16\sqrt{6}i}{45} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & \frac{16\sqrt{3}i}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{15} & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{9} & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 \end{pmatrix}$
214	$\mathbb{G}_{2,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{45} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 & 0 \end{pmatrix}$
215	$\mathbb{G}_{0,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
216	$\mathbb{G}_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{4\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{525} \\ 0 & 0 & \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}i}{1225} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{42}i}{3675} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{3675} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
217	$\mathbb{G}_{2,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{6\sqrt{7}i}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{525} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}i}{525} & 0 \\ 0 & -\frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & \frac{6\sqrt{7}i}{1225} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}i}{735} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{3675} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{1225} \end{pmatrix}$
218	$\mathbb{G}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{175} & 0 & 0 \\ \frac{\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}i}{1225} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}i}{1225} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}i}{1225} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}i}{1225} \end{pmatrix}$
219	$\mathbb{G}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} -\frac{2\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}i}{525} & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{7}i}{175} & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{70}i}{1225} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}i}{3675} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{735} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{7}i}{1225} & 0 & 0 \end{pmatrix}$
220	$\mathbb{G}_{2,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{525} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{210}i}{3675} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & \frac{8\sqrt{42}i}{3675} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{42}i}{175} & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}i}{1225} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
221	$\mathbb{T}_{1,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & -\frac{2i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{2}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{15} \end{bmatrix}$
222	$\mathbb{T}_{1,0}^{(a)}$	$\begin{bmatrix} 0 & \frac{2\sqrt{2}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2i}{15} & 0 & 0 & 0 & 0 & \frac{4i}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2i}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{2i}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{2i}{15} & 0 & 0 & 0 & 0 & \frac{4i}{15} & 0 \end{bmatrix}$
223	$\mathbb{T}_{1,-1}^{(a)}$	$\begin{bmatrix} -\frac{2\sqrt{3}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{15} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{2}i}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 \end{bmatrix}$
224	$\mathbb{T}_{3,3}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{175} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
225	$\mathbb{T}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{35} \\ 0 & 0 & \frac{3\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
226	$\mathbb{T}_{3,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 \\ 0 & -\frac{6i}{175} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{175} & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{3}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{6i}{175} & 0 & 0 & 0 & 0 & -\frac{i}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{175} \end{pmatrix}$
227	$\mathbb{T}_{3,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 \\ \frac{3i}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{6i}{175} & 0 & 0 & 0 \\ 0 & -\frac{9i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{175} & 0 & 0 & 0 \\ 0 & 0 & \frac{9i}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3i}{175} & 0 & 0 & 0 & 0 & -\frac{6i}{175} & 0 \end{pmatrix}$
228	$\mathbb{T}_{3,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 \\ \frac{6i}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{i}{25} & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{3}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{175} & 0 & 0 & 0 \\ 0 & 0 & \frac{6i}{175} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{175} & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
229	$\mathbb{T}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{175} & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{175} & 0 & 0 & 0 \end{pmatrix}$
230	$\mathbb{T}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{175} & 0 & 0 & 0 & 0 \end{pmatrix}$
231	$\mathbb{T}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
232	$\mathbb{T}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{27} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{135} \\ 0 & 0 & \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{16i}{45} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{135} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
233	$\mathbb{T}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}i}{135} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{135} & 0 \\ 0 & -\frac{4\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}i}{75} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}i}{75} & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{675} & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & \frac{56\sqrt{15}i}{675} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8i}{45} \end{pmatrix}$
234	$\mathbb{T}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{45} & 0 & 0 \\ \frac{2\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{225} & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}i}{225} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}i}{225} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{225} & 0 \end{pmatrix}$
235	$\mathbb{T}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{135} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}i}{135} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & \frac{56\sqrt{15}i}{675} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}i}{75} & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{675} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{15}i}{225} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}i}{75} & 0 & 0 \end{pmatrix}$
236	$\mathbb{T}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{135} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{27} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{135} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{135} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & \frac{16i}{45} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
237	$\mathbb{T}_{3,-3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{45} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}i}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \end{bmatrix}$
238	$\mathbb{T}_{1,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{\sqrt{2}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{10} & 0 & 0 & 0 \\ 0 & 0 & \frac{8i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{10} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{5} \end{bmatrix}$
239	$\mathbb{T}_{1,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & \frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{5} & 0 \end{bmatrix}$
240	$\mathbb{T}_{1,-1}^{(1,0;a)}$	$\begin{bmatrix} -\frac{\sqrt{6}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{8i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{10} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{10} & 0 & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
241	$\mathbb{T}_{3,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
242	$\mathbb{T}_{3,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{21} \\ 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{210} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{42} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
243	$\mathbb{T}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{21} & 0 \\ 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{70} & 0 & 0 & 0 \\ 0 & 0 & \frac{12i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{210} & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{30} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{70} \end{pmatrix}$
244	$\mathbb{T}_{3,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 \\ \frac{2\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
245	$\mathbb{T}_{3,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{70} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{30} & 0 & 0 & 0 & 0 \\ 0 & -\frac{12i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{210} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{70} & 0 & 0 \end{pmatrix}$
246	$\mathbb{T}_{3,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{210} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{35} & 0 & 0 & 0 \end{pmatrix}$
247	$\mathbb{T}_{3,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{i}{14} & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{70} & 0 & 0 & 0 & 0 \end{pmatrix}$
248	$\mathbb{T}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{10}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{75} & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{5}i}{75} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{75} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{75} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{15} \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
249	$\mathbb{T}_{1,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{75} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{10}i}{75} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{75} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{10}i}{75} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{75} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{75} & 0 \end{pmatrix}$
250	$\mathbb{T}_{1,-1}^{(1,1;a)}$	$\begin{pmatrix} \frac{\sqrt{30}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2i}{15} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{75} & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{5}i}{75} & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{75} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{75} & 0 \end{pmatrix}$
251	$\mathbb{M}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{4}{5} & 0 & 0 & 0 & 0 & \frac{4}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{15} \\ 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
252	$\mathbb{M}_{2,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{8}{15} & 0 \\ 0 & \frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{3} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{15} \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
253	$\mathbb{M}_{2,0}^{(a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 \\ -\frac{2}{5} & 0 & 0 & 0 & 0 & \frac{4}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 \end{pmatrix}$
254	$\mathbb{M}_{2,-1}^{(a)}$	$\begin{pmatrix} -\frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{8}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{15} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{3} & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{5} & 0 \end{pmatrix}$
255	$\mathbb{M}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{15} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4}{5} & 0 & 0 & 0 & 0 & 0 & \frac{4}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{15} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{2}}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{15} & 0 & 0 & 0 \end{pmatrix}$
256	$\mathbb{M}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{15} \\ 0 & 0 & \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
257	$\mathbb{M}_{2,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{2}}{10} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{30} & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{15} & 0 \\ 0 & -\frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{10} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{6} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{5} \end{pmatrix}$
258	$\mathbb{M}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 \\ \frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 \end{pmatrix}$
259	$\mathbb{M}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} \frac{\sqrt{6}}{30} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{15} & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{10} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{6} & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{10} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
260	$\mathbb{M}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}}{15} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{15} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{15} & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
261	$\mathbb{M}_{4,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
262	$\mathbb{M}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
263	$\mathbb{M}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{210}}{98} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}}{98} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
264	$\mathbb{M}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}}{98} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{98} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}}{98} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{98} \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
265	$\mathbb{M}_{4,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{49} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{49} & 0 \end{pmatrix}$
266	$\mathbb{M}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{105}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{210}}{98} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{70}}{98} & 0 \end{pmatrix}$
267	$\mathbb{M}_{4,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{49} & 0 & 0 \end{pmatrix}$
268	$\mathbb{M}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
269	$\mathbb{M}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
270	$\mathbb{M}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{6}}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{135} \\ 0 & 0 & \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{45} & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{135} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
271	$\mathbb{M}_{2,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{2}}{15} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{3}}{135} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{45} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{6}}{135} & 0 \\ 0 & -\frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{27} & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{45} \end{pmatrix}$
272	$\mathbb{M}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}}{45} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}}{45} & 0 & 0 \\ \frac{4\sqrt{6}}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{6}}{45} & 0 & 0 & 0 & 0 & \frac{2}{45} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{6}}{45} & 0 & 0 & 0 & 0 & -\frac{2}{45} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{6}}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{45} & 0 \end{pmatrix}$

continued ...

Table 6

No.	multipole	matrix
273	$\mathbb{M}_{2,-1}^{(1,0;a)}$	$\begin{bmatrix} \frac{\sqrt{6}}{45} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{6}}{135} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{15} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{3}}{135} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{45} & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{135} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{27} & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{15} & 0 & 0 \end{bmatrix}$
274	$\mathbb{M}_{2,-2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{135} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}}{45} & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{135} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{135} & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{135} & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}}{45} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{45} & 0 & 0 & 0 \end{bmatrix}$
275	$\mathbb{M}_{0,0}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
276	$\mathbb{M}_{2,2}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{4\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{105} \\ 0 & 0 & \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{42}}{735} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}}{735} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 6

No.	multipole	matrix
277	$\mathbb{M}_{2,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{6\sqrt{7}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{105} & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{21}}{35} & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{105} & 0 \\ 0 & -\frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{6\sqrt{7}}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{147} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}}{735} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{245} \end{pmatrix}$
278	$\mathbb{M}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{35} & 0 & 0 \\ \frac{\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}}{245} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{245} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{21}}{35} & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{21}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{245} \end{pmatrix}$
279	$\mathbb{M}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} -\frac{2\sqrt{21}}{35} & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{105} & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{7}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{245} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{735} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{147} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{7}}{245} & 0 & 0 \end{pmatrix}$
280	$\mathbb{M}_{2,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{105} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{210}}{735} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{8\sqrt{42}}{735} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{245} & 0 & 0 & 0 \end{pmatrix}$

$$\text{bra: } = |\frac{1}{2}, \frac{1}{2}; p\rangle, |\frac{1}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, \frac{3}{2}; p\rangle, |\frac{3}{2}, \frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{1}{2}; p\rangle, |\frac{3}{2}, -\frac{3}{2}; p\rangle$$

$$\text{ket: } = |\frac{5}{2}, \frac{5}{2}; f\rangle, |\frac{5}{2}, \frac{3}{2}; f\rangle, |\frac{5}{2}, \frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{3}{2}; f\rangle, |\frac{5}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{7}{2}; f\rangle, |\frac{7}{2}, \frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{3}{2}; f\rangle, |\frac{7}{2}, \frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{3}{2}; f\rangle, |\frac{7}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, -\frac{7}{2}; f\rangle$$

Table 7: (p,f) block.

No.	multipole	matrix											
		0	0	0	0	$\frac{1}{5}$	0	0	0	0	0	0	0
281	$\mathbb{Q}_{2,2}^{(a)}$	0	0	0	0	0	$\frac{\sqrt{5}}{5}$	0	0	0	0	0	0
		0	0	0	$-\frac{2\sqrt{3}}{35}$	0	0	0	0	0	$\frac{3}{35}$	0	0
		0	0	0	0	$-\frac{4\sqrt{2}}{35}$	0	0	0	0	0	$\frac{3\sqrt{5}}{35}$	0
		0	0	0	0	0	$-\frac{2\sqrt{10}}{35}$	0	0	0	0	0	$\frac{3\sqrt{15}}{35}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{35}}{35}$
		0	0	0	0	0	0	0	0	0	0	0	0
282	$\mathbb{Q}_{2,1}^{(a)}$	0	0	0	$-\frac{\sqrt{2}}{5}$	0	0	0	0	0	0	0	0
		0	0	0	0	$-\frac{2}{5}$	0	0	0	0	0	0	0
		0	0	$\frac{3\sqrt{3}}{35}$	0	0	0	0	0	$-\frac{6}{35}$	0	0	0
		0	0	0	$\frac{1}{7}$	0	0	0	0	0	$-\frac{6\sqrt{3}}{35}$	0	0
		0	0	0	0	$\frac{\sqrt{2}}{35}$	0	0	0	0	0	$-\frac{6\sqrt{5}}{35}$	0
		0	0	0	0	0	$-\frac{\sqrt{30}}{35}$	0	0	0	0	0	$-\frac{6\sqrt{5}}{35}$
283	$\mathbb{Q}_{2,0}^{(a)}$	0	0	$\frac{\sqrt{3}}{5}$	0	0	0	0	0	0	0	0	0
		0	0	0	$\frac{\sqrt{3}}{5}$	0	0	0	0	0	0	0	0
		0	$-\frac{6}{35}$	0	0	0	0	0	$\frac{3\sqrt{10}}{35}$	0	0	0	0
		0	0	$-\frac{\sqrt{6}}{35}$	0	0	0	0	0	$\frac{9\sqrt{2}}{35}$	0	0	0
		0	0	0	$\frac{\sqrt{6}}{35}$	0	0	0	0	0	$\frac{9\sqrt{2}}{35}$	0	0
		0	0	0	0	$\frac{6}{35}$	0	0	0	0	0	$\frac{3\sqrt{10}}{35}$	0

continued ...

Table 7

No.	multipole	matrix
284	$\mathbb{Q}_{2,-1}^{(a)}$	$\begin{pmatrix} 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$
285	$\mathbb{Q}_{2,-2}^{(a)}$	$\begin{pmatrix} \frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$
286	$\mathbb{Q}_{4,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
287	$\mathbb{Q}_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{9} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{9} \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
288	$\mathbb{Q}_{4,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{9} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{9} & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{63} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11}{63} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{63} \end{pmatrix}$
289	$\mathbb{Q}_{4,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{9} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{9} & 0 \\ 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{63} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} \end{pmatrix}$
290	$\mathbb{Q}_{4,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{9} & 0 & 0 \\ 0 & \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 \end{pmatrix}$
291	$\mathbb{Q}_{4,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{9} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{9} & 0 & 0 & 0 \\ -\frac{1}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{63} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
292	$\mathbb{Q}_{4,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{9} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{9} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$
293	$\mathbb{Q}_{4,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{9} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
294	$\mathbb{Q}_{4,-4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
295	$\mathbb{Q}_{4,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
296	$\mathbb{Q}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{4} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{28} \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{28} & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{28} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
297	$\mathbb{Q}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{28} & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{35}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{105}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{196} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{33\sqrt{7}}{98} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{14} \end{pmatrix}$
298	$\mathbb{Q}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}}{28} & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{70}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{210}}{196} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{105}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{42}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{42}}{98} & 0 \end{pmatrix}$
299	$\mathbb{Q}_{4,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{14} & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{7}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{14}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{14}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}}{98} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
300	$\mathbb{Q}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}}{28} & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{7}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{105}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{42}}{49} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{210}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{70}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{49} & 0 & 0 & 0 \end{pmatrix}$
301	$\mathbb{Q}_{4,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{42}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{33\sqrt{7}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{210}}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{98} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{35}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{105}}{98} & 0 & 0 & 0 & 0 \end{pmatrix}$
302	$\mathbb{Q}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{4} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{3}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
303	$\mathbb{Q}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
304	$\mathbb{Q}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{42} & 0 \end{pmatrix}$
305	$\mathbb{Q}_{2,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{3}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{2}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{25\sqrt{6}}{252} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{5}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 \end{pmatrix}$
306	$\mathbb{Q}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{2}}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 \end{pmatrix}$
307	$\mathbb{Q}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{6}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{5}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{3}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{25\sqrt{6}}{252} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{2}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
308	$\mathbb{Q}_{2,-2}^{(1,0;a)}$	$\begin{pmatrix} -\frac{\sqrt{30}}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
309	$\mathbb{Q}_{4,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{27} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{945} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{135} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
310	$\mathbb{Q}_{4,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}}{54} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{54} & \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{315} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{945} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{135} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
311	$\mathbb{Q}_{4,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{54} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{54} & 0 \\ 0 & 0 & 0 & -\frac{5}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{126} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{945} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{126} & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{5}}{945} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{945} & \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
312	$\mathbb{Q}_{4,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5}{54} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{54} & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{2}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{6}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{189} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{945} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{315} & 0 \end{pmatrix}$
313	$\mathbb{Q}_{4,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{27} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{27} & 0 & 0 \\ 0 & -\frac{\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{30}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{189} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{63} & 0 & 0 \end{pmatrix}$
314	$\mathbb{Q}_{4,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{54} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5}{54} & 0 & 0 & 0 \\ \frac{\sqrt{5}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{315} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{3}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{945} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{6}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{2}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{189} & 0 & 0 & 0 \end{pmatrix}$
315	$\mathbb{Q}_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{54} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{54} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{945} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{30}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{5}}{945} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{6}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{945} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{63} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
316	$\mathbb{Q}_{4,-3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{54} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{54} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{135} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{105}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{945} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{7}}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{315} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
317	$\mathbb{Q}_{4,-4}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{135} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{70}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{945} & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
318	$\mathbb{Q}_{2,2}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{16\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{98} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{14} & 0 & 0 \end{bmatrix}$
319	$\mathbb{Q}_{2,1}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{2\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{49} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{20\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{49} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{49} & 0 \end{bmatrix}$

continued ...

Table 7

No.	multipole	matrix
320	$\mathbb{Q}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{21}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{14}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{14}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{21}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{98} & 0 & 0 \end{pmatrix}$
321	$\mathbb{Q}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{4\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{49} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{20\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{49} & 0 & 0 \end{pmatrix}$
322	$\mathbb{Q}_{2,-2}^{(1,1;a)}$	$\begin{pmatrix} -\frac{2\sqrt{105}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{210}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{98} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{98} & 0 & 0 & 0 & 0 \end{pmatrix}$
323	$\mathbb{G}_{3,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{28} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{28} & \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{28} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}i}{28} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}i}{28} & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
324	$\mathbb{G}_{3,2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{28} & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{28} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{28} \end{bmatrix}$
325	$\mathbb{G}_{3,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{28} & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{6}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}i}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{i}{4} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}i}{28} \end{bmatrix}$
326	$\mathbb{G}_{3,0}^{(a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{14} & 0 & 0 & 0 \\ 0 & -\frac{3i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}i}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{28} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{28} & 0 & 0 \end{bmatrix}$
327	$\mathbb{G}_{3,-1}^{(a)}$	$\begin{bmatrix} 0 & -\frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{28} & 0 & 0 & 0 & 0 \\ \frac{\sqrt{15}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{i}{4} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{28} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 7

No.	multipole	matrix
328	$\mathbb{G}_{3,-2}^{(a)}$	$\begin{pmatrix} \frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9i}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{28} & 0 & 0 & 0 & 0 \end{pmatrix}$
329	$\mathbb{G}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{3}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
330	$\mathbb{G}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
331	$\mathbb{G}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{7} & 0 & 0 \\ 0 & 0 & 0 & \frac{2i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{42} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
332	$\mathbb{G}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}i}{21} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 \end{pmatrix}$
333	$\mathbb{G}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 \end{pmatrix}$
334	$\mathbb{G}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{30}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 \\ -\frac{i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{21} & 0 & 0 & 0 \end{pmatrix}$
335	$\mathbb{G}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{\sqrt{15}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
336	$\mathbb{G}_{3,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{10}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{5}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
337	$\mathbb{G}_{5,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{27} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
338	$\mathbb{G}_{5,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}i}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
339	$\mathbb{G}_{5,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}i}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{135} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{135} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
340	$\mathbb{G}_{5,2}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{7}i}{27}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{35}i}{45}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{105}i}{135}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{5}i}{135}$
341	$\mathbb{G}_{5,1}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{2i}{27}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{3}i}{27}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{5}i}{45}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{5}i}{135}$ 0
342	$\mathbb{G}_{5,0}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{2}i}{27}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{10}i}{27}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{10}i}{27}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{2}i}{27}$ 0 0
343	$\mathbb{G}_{5,-1}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{2\sqrt{5}i}{135}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{5}i}{45}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{3}i}{27}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2i}{27}$ 0 0 0

continued ...

Table 7

continued ...

Table 7

No.	multipole	matrix
348	$\mathbb{G}_{3,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}i}{28} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{21}i}{28} \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{15}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{25i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
349	$\mathbb{G}_{3,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{2}i}{28} & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{5}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{30}i}{84} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{6}i}{84} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{14} \end{pmatrix}$
350	$\mathbb{G}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{15i}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{15}i}{28} & 0 & 0 \\ 0 & 0 & \frac{15\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{6}i}{84} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{12} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{5}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{14} & 0 \end{pmatrix}$
351	$\mathbb{G}_{3,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{14} & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{14} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

continued ...

Table 7

No.	multipole	matrix
356	$\mathbb{G}_{1,0}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
357	$\mathbb{G}_{1,-1}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
358	$\mathbb{G}_{3,3}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & \frac{i}{126} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{126} \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{189} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{189} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{189} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
359	$\mathbb{G}_{3,2}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{126} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{126} & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{126} & 0 & 0 & 0 & 0 & 0 & -\frac{i}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{189} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{189} \end{bmatrix}$

continued ...

Table 7

No.	multipole	matrix
360	$\mathbb{G}_{3,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{8i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{126} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{126} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{i}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{189} & 0 \end{pmatrix}$
361	$\mathbb{G}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{63} & 0 & 0 & 0 & 0 \\ 0 & \frac{i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{189} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{189} & 0 & 0 \end{pmatrix}$
362	$\mathbb{G}_{3,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{4\sqrt{2}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{15}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{i}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{189} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{189} & 0 & 0 & 0 \end{pmatrix}$
363	$\mathbb{G}_{3,-2}^{(1,1;a)}$	$\begin{pmatrix} \frac{4i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{2}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{189} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
364	$\mathbb{G}_{3,-3}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{126} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{189} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
365	$T_{2,2}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{14} & 0 \end{bmatrix}$
366	$T_{2,1}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & -\frac{\sqrt{2}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 \end{bmatrix}$
367	$T_{2,0}^{(a)}$	$\begin{bmatrix} 0 & 0 & \frac{\sqrt{3}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{14} & 0 & 0 \end{bmatrix}$

continued ...

Table 7

No.	multipole	matrix
368	$\mathbb{T}_{2,-1}^{(a)}$	$\begin{pmatrix} 0 & -\frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 \end{pmatrix}$
369	$\mathbb{T}_{2,-2}^{(a)}$	$\begin{pmatrix} \frac{\sqrt{5}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{10}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{2}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{14} & 0 & 0 & 0 & 0 \end{pmatrix}$
370	$\mathbb{T}_{4,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{27} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}i}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{189} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{27} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
371	$\mathbb{T}_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{27} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{27} \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}i}{189} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{27} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
372	$T_{4,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{27} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{27} & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{5}i}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{189} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & \frac{11i}{189} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{189} \end{pmatrix}$
373	$T_{4,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{27} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{27} & 0 \\ 0 & 0 & -\frac{\sqrt{10}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{189} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{189} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{189} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{63} \end{pmatrix}$
374	$T_{4,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{27} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{27} & 0 & 0 \\ 0 & \frac{2i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}i}{189} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}i}{189} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{63} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
375	$T_{4,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{27} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{27} & 0 & 0 & 0 \\ -\frac{i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{189} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{189} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{189} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
376	$\mathbb{T}_{4,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{27} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{30}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{5}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 \end{pmatrix}$
377	$\mathbb{T}_{4,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{21}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{35}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
378	$\mathbb{T}_{4,-4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{14}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{189} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
379	$\mathbb{T}_{4,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
380	$\mathbb{T}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{8} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{56} \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{56} & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{56} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{28} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
381	$\mathbb{T}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{56} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{56} & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{35}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{105}i}{196} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{196} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{33\sqrt{7}i}{196} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{28} \end{pmatrix}$
382	$\mathbb{T}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}i}{56} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}i}{56} & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{70}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}i}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{210}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}i}{196} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{105}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{42}i}{196} & 0 \end{pmatrix}$
383	$\mathbb{T}_{4,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{28} & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{7}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{42}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{14}i}{196} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{42}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{14}i}{196} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}i}{196} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
384	$\mathbb{T}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{56} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}i}{56} & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{7}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{42}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{105}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{210}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}i}{196} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{70}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}i}{98} & 0 & 0 & 0 \end{pmatrix}$
385	$\mathbb{T}_{4,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}i}{56} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{56} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{42}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{33\sqrt{7}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{210}i}{392} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{196} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{35}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{105}i}{196} & 0 & 0 & 0 \end{pmatrix}$
386	$\mathbb{T}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{56} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{8} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{3}i}{56} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}i}{56} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
387	$\mathbb{T}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{2}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{14} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
388	$\mathbb{T}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{35} \end{pmatrix}$
389	$\mathbb{T}_{2,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} \end{pmatrix}$
390	$\mathbb{T}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{i}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 \end{pmatrix}$
391	$\mathbb{T}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{35} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
392	$\mathbb{T}_{2,-2}^{(1,0;a)}$	$\begin{pmatrix} \frac{\sqrt{30}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
393	$\mathbb{T}_{4,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}i}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
394	$\mathbb{T}_{4,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}i}{18} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{18} \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{7}i}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
395	$\mathbb{T}_{4,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{18} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{18} & 0 \\ 0 & 0 & 0 & \frac{5i}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{315} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{5}i}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{315} \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
396	$\mathbb{T}_{4,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5i}{18} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{18} & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{315} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{105} & 0 \end{pmatrix}$
397	$\mathbb{T}_{4,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{9} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{9} & 0 & 0 & 0 \\ 0 & \frac{\sqrt{5}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{21} & 0 & 0 \end{pmatrix}$
398	$\mathbb{T}_{4,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{18} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5i}{18} & 0 & 0 & 0 \\ -\frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{315} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{63} & 0 & 0 & 0 \end{pmatrix}$
399	$\mathbb{T}_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{18} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{18} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
400	$\mathbb{T}_{4,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{18} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{7}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{105} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
401	$\mathbb{T}_{4,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{70}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
402	$\mathbb{T}_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{7}i}{49} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{196} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{42}i}{147} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{196} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{147} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}i}{196} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{28} & 0 \end{pmatrix}$
403	$\mathbb{T}_{2,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{42}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{21}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{7}i}{49} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{21}i}{147} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{147} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{49} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{98} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
404	$\mathbb{T}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{7}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{7}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{21}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{196} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{14}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{196} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{14}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}i}{196} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{21}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{196} & 0 & 0 \end{pmatrix}$
405	$\mathbb{T}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{21}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{42}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{70}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{98} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{42}i}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{21}i}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{7}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{98} & 0 & 0 \end{pmatrix}$
406	$\mathbb{T}_{2,-2}^{(1,1;a)}$	$\begin{pmatrix} -\frac{\sqrt{105}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{210}i}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}i}{196} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{42}i}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{196} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{7}i}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{196} & 0 & 0 & 0 \end{pmatrix}$
407	$\mathbb{M}_{3,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{3}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{14} & \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{14}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
408	$\mathbb{M}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{14} & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{14} \end{pmatrix}$
409	$\mathbb{M}_{3,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{1}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}}{14} \end{pmatrix}$
410	$\mathbb{M}_{3,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} & 0 & 0 & 0 \\ 0 & -\frac{3}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{14} & 0 & 0 \end{pmatrix}$
411	$\mathbb{M}_{3,-1}^{(a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 \\ \frac{\sqrt{15}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{1}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
412	$\mathbb{M}_{3,-2}^{(a)}$	$\begin{pmatrix} \frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{7}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 \end{pmatrix}$
413	$\mathbb{M}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
414	$\mathbb{M}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{35} \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
415	$\mathbb{M}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 \\ 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{35} \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
416	$\mathbb{M}_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 \\ 0 & 0 & -\frac{6\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 \end{pmatrix}$
417	$\mathbb{M}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 \end{pmatrix}$
418	$\mathbb{M}_{3,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 \\ -\frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} & 0 & 0 & 0 \end{pmatrix}$
419	$\mathbb{M}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
420	$\mathbb{M}_{3,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
421	$\mathbb{M}_{5,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{9} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
422	$\mathbb{M}_{5,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{45} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
423	$\mathbb{M}_{5,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{45} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{45} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
424	$\mathbb{M}_{5,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{45} \end{pmatrix}$
425	$\mathbb{M}_{5,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{45} & 0 \end{pmatrix}$
426	$\mathbb{M}_{5,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{9} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{9} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{9} & 0 \end{pmatrix}$
427	$\mathbb{M}_{5,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{9} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{9} & 0 & 0 \end{pmatrix}$

continued ...

Table 7

continued ...

Table 7

No.	multipole	matrix
432	$\mathbb{M}_{3,3}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}}{56} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{21}}{56} \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}}{56} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{25}{56} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{28} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
433	$\mathbb{M}_{3,2}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{56} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{15\sqrt{2}}{56} & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{5}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{30}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{6}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{28} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{28} \end{bmatrix}$
434	$\mathbb{M}_{3,1}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15}{56} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}}{56} & 0 & 0 \\ 0 & 0 & -\frac{15\sqrt{2}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{6}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{24} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{5}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{28} & 0 \end{bmatrix}$
435	$\mathbb{M}_{3,0}^{(1,0;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{28} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{28} & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{3}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{2}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{28} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{2}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{28} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{28} & 0 & 0 \end{bmatrix}$

continued ...

Table 7

No.	multipole	matrix
436	$\mathbb{M}_{3,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}}{56} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15}{56} & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{5}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{3}}{24} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{6}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{15\sqrt{2}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 \end{pmatrix}$
437	$\mathbb{M}_{3,-2}^{(1,0;a)}$	$\begin{pmatrix} -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{15\sqrt{2}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{56} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{25\sqrt{6}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{28} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{30}}{168} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{28} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{5}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{28} & 0 & 0 & 0 & 0 \end{pmatrix}$
438	$\mathbb{M}_{3,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{21}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{25}{56} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{15}}{56} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{28} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
439	$\mathbb{M}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{10}}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{30}}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
440	$\mathbb{M}_{1,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
441	$\mathbb{M}_{1,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{30}}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{10}}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
442	$\mathbb{M}_{3,3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{42} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{42} \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{63} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{63} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
443	$\mathbb{M}_{3,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{42} & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{63} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{63} \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
444	$\mathbb{M}_{3,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{42} & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{1}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{63} \\ \end{pmatrix}$
445	$\mathbb{M}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{4\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 \\ 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{63} & 0 & 0 \end{pmatrix}$
446	$\mathbb{M}_{3,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{4\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{42} & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{15}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{63} & 0 & 0 & 0 \end{pmatrix}$
447	$\mathbb{M}_{3,-2}^{(1,1;a)}$	$\begin{pmatrix} \frac{4}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{63} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 7

No.	multipole	matrix
448	$\mathbb{M}_{3,-3}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{3}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

bra: $= |\frac{3}{2}, \frac{3}{2}; d\rangle, |\frac{3}{2}, \frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{5}{2}; d\rangle, |\frac{5}{2}, \frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, -\frac{5}{2}; d\rangle$
ket: $= |\frac{3}{2}, \frac{3}{2}; d\rangle, |\frac{3}{2}, \frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{5}{2}; d\rangle, |\frac{5}{2}, \frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, -\frac{5}{2}; d\rangle$

Table 8: (d,d) block.

No.	multipole	matrix
449	$\mathbb{Q}_{0,0}^{(a)}$	$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \end{bmatrix}$

continued ...

Table 8

No.	multipole	matrix
450	$\mathbb{Q}_{2,2}^{(a)}$	0 0 $-\frac{\sqrt{2}}{5}$ 0 0 0 0 $-\frac{2\sqrt{3}}{35}$ 0 0
		0 0 0 $-\frac{\sqrt{2}}{5}$ 0 0 0 0 $-\frac{4\sqrt{2}}{35}$ 0
		0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{10}}{35}$
		0 0 0 0 0 0 0 0 0 0
		0 $\frac{2\sqrt{10}}{35}$ 0 0 0 0 $-\frac{2\sqrt{15}}{35}$ 0 0 0
		0 0 $\frac{4\sqrt{2}}{35}$ 0 0 0 0 $-\frac{6\sqrt{3}}{35}$ 0 0
		0 0 0 $\frac{2\sqrt{3}}{35}$ 0 0 0 0 0 $-\frac{6\sqrt{3}}{35}$
		0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{15}}{35}$
		0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0
451	$\mathbb{Q}_{2,1}^{(a)}$	0 $\frac{\sqrt{2}}{5}$ 0 0 0 0 $\frac{3\sqrt{3}}{35}$ 0 0 0
		0 0 0 0 0 0 0 0 $\frac{1}{7}$ 0 0
		0 0 0 $-\frac{\sqrt{2}}{5}$ 0 0 0 0 0 $\frac{\sqrt{2}}{35}$ 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{30}}{35}$
		$-\frac{\sqrt{30}}{35}$ 0 0 0 0 $\frac{2\sqrt{30}}{35}$ 0 0 0 0
		0 $\frac{\sqrt{2}}{35}$ 0 0 0 0 $\frac{4\sqrt{3}}{35}$ 0 0 0
		0 0 $\frac{1}{7}$ 0 0 0 0 0 0 0
		0 0 0 $\frac{3\sqrt{3}}{35}$ 0 0 0 0 0 $-\frac{4\sqrt{3}}{35}$ 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{30}}{35}$
		0 0 0 0 0 0 0 0 0 0

continued ...

Table 8

No.	multipole	matrix
452	$\mathbb{Q}_{2,0}^{(a)}$	$\begin{pmatrix} -\frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & \frac{6}{35} \\ 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 \\ -\frac{6}{35} & 0 & 0 & 0 & 0 & \frac{2}{35} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{8}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{8}{35} & 0 \\ 0 & 0 & 0 & \frac{6}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} \end{pmatrix}$
453	$\mathbb{Q}_{2,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{35} & 0 \\ 0 & 0 & 0 & \frac{\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
454	$\mathbb{Q}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 \end{pmatrix}$
455	$\mathbb{Q}_{4,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
456	$\mathbb{Q}_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
458	$\mathbb{Q}_{4,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{21} \\ \frac{1}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
459	$\mathbb{Q}_{4,0}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{21} & 0 & 0 & 0 & 0 \\ \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{21} \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
460	$\mathbb{Q}_{4,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 & 0 & 0 \\ \frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 \\ 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2}{21} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
462	$\mathbb{Q}_{4,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
464	$\mathbb{Q}_{2,2}^{(1,-1;a)}$	0 0 $-\frac{2\sqrt{3}}{5}$ 0 0 0 0 $-\frac{3\sqrt{2}}{5}$ 0 0
		0 0 0 $-\frac{2\sqrt{3}}{5}$ 0 0 0 0 $-\frac{4\sqrt{3}}{5}$ 0
		0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{15}}{5}$
		0 0 0 0 0 0 0 0 0 0
		0 $\frac{2\sqrt{15}}{5}$ 0 0 0 0 $\frac{2\sqrt{10}}{5}$ 0 0 0
		0 0 $\frac{4\sqrt{3}}{5}$ 0 0 0 0 $\frac{6\sqrt{2}}{5}$ 0 0
		0 0 0 $\frac{3\sqrt{2}}{5}$ 0 0 0 0 0 $\frac{6\sqrt{2}}{5}$
		0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{10}}{5}$
		0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0
465	$\mathbb{Q}_{2,1}^{(1,-1;a)}$	0 $\frac{2\sqrt{3}}{5}$ 0 0 0 0 $\frac{9\sqrt{2}}{10}$ 0 0 0
		0 0 0 0 0 0 0 0 $\frac{\sqrt{6}}{2}$ 0 0
		0 0 0 $-\frac{2\sqrt{3}}{5}$ 0 0 0 0 0 $\frac{\sqrt{3}}{5}$ 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{3\sqrt{5}}{5}$
		$-\frac{3\sqrt{5}}{5}$ 0 0 0 0 $-\frac{4\sqrt{5}}{5}$ 0 0 0 0
		0 $\frac{\sqrt{3}}{5}$ 0 0 0 0 $-\frac{4\sqrt{2}}{5}$ 0 0 0
		0 0 $\frac{\sqrt{6}}{2}$ 0 0 0 0 0 0 0
		0 0 0 $\frac{9\sqrt{2}}{10}$ 0 0 0 0 0 $\frac{4\sqrt{2}}{5}$ 0
		0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{5}}{5}$
		0 0 0 0 0 0 0 0 0 0

continued ...

Table 8

No.	multipole	matrix
466	$\mathbb{Q}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{3}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{3}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{3} & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 & 0 & 0 & 0 \\ 0 & -\frac{3}{5} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{15} & 0 & 0 & 0 \\ 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{15} & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{15} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{3} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{2} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}}{10} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{9\sqrt{2}}{10} & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{5}}{5} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{5} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
468	$\mathbb{Q}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{3}}{5} & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} & 0 & 0 \end{pmatrix}$
469	$\mathbb{Q}_{4,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
470	$\mathbb{Q}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
471	$\mathbb{Q}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{35}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{210}}{98} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{98} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 & -\frac{18\sqrt{7}}{49} & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{210}}{98} & 0 & 0 & 0 & 0 & \frac{6\sqrt{35}}{49} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{35}}{49} & 0 & 0 & 0 & 0 & \frac{6\sqrt{35}}{49} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{18\sqrt{7}}{49} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix																																																																																																				
472	$\mathbb{Q}_{4,1}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{70}}{98}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{210}}{98}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{105}}{98}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{7}}{98}$</td></tr> <tr><td>$\frac{3\sqrt{7}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{3\sqrt{105}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{3\sqrt{210}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{70}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{70}}{49}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{7}}{49}$</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$-\frac{3\sqrt{70}}{98}$	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{210}}{98}$	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{105}}{98}$	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{7}}{98}$	$\frac{3\sqrt{7}}{98}$	0	0	0	0	$\frac{12\sqrt{7}}{49}$	0	0	0	0	0	$-\frac{3\sqrt{105}}{98}$	0	0	0	0	$-\frac{6\sqrt{70}}{49}$	0	0	0	0	0	$\frac{3\sqrt{210}}{98}$	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{70}}{98}$	0	0	0	0	$\frac{6\sqrt{70}}{49}$	0	0	0	0	0	0	0	0	0	0	$-\frac{12\sqrt{7}}{49}$	0	0	0	0	0	0	0	0	0	0
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Table 8

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474	$\mathbb{Q}_{4,-1}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{7}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{105}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{210}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{70}}{98}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{3\sqrt{70}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{3\sqrt{210}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{3\sqrt{105}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{7}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{7}}{49}$</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	$-\frac{3\sqrt{7}}{98}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{105}}{98}$	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{210}}{98}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{70}}{98}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{12\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{3\sqrt{70}}{98}$	0	0	0	0	$\frac{6\sqrt{70}}{49}$	0	0	0	0	0	0	$-\frac{3\sqrt{210}}{98}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{105}}{98}$	0	0	0	0	$-\frac{6\sqrt{70}}{49}$	0	0	0	0	0	0	$-\frac{3\sqrt{7}}{98}$	0	0	0	0	$\frac{12\sqrt{7}}{49}$	0	0
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0	0	$\frac{3\sqrt{42}}{98}$	0	0	0	0	$-\frac{18\sqrt{7}}{49}$	0	0	0																																																																																																						

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Table 8

No.	multipole	matrix
476	$\mathbb{Q}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{5}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{3}}{14} & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 \end{pmatrix}$
477	$\mathbb{Q}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
478	$\mathbb{Q}_{0,0}^{(1,1;a)}$	$\begin{pmatrix} -\sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{3} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{6\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{24\sqrt{7}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{42}}{35} & 0 & 0 & 0 & 0 & -\frac{16\sqrt{42}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}}{245} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{210}}{245} & 0 & 0 & 0 & 0 & -\frac{9\sqrt{35}}{245} & 0 & 0 & 0 \\ 0 & 0 & \frac{16\sqrt{42}}{245} & 0 & 0 & 0 & 0 & -\frac{27\sqrt{7}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{7}}{245} & 0 & 0 & 0 & 0 & -\frac{27\sqrt{7}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{35}}{245} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
480	$\mathbb{Q}_{2,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{6\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{36\sqrt{7}}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{49} & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{42}}{35} & 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{70}}{245} \\ -\frac{12\sqrt{70}}{245} & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}}{245} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{42}}{245} & 0 & 0 & 0 & 0 & \frac{18\sqrt{7}}{245} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{21}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{36\sqrt{7}}{245} & 0 & 0 & 0 & 0 & -\frac{18\sqrt{7}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{70}}{245} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
481	$\mathbb{Q}_{2,0}^{(1,1;a)}$	$\begin{pmatrix} \frac{6\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{24\sqrt{21}}{245} & 0 & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{21}}{35} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{14}}{245} & 0 & 0 & 0 \\ 0 & 0 & -\frac{6\sqrt{21}}{35} & 0 & 0 & 0 & 0 & \frac{12\sqrt{14}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{21}}{35} & 0 & 0 & 0 & 0 & \frac{24\sqrt{21}}{245} & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}}{49} & 0 & 0 & 0 & 0 & 0 \\ -\frac{24\sqrt{21}}{245} & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{245} & 0 & 0 & 0 & 0 \\ 0 & -\frac{12\sqrt{14}}{245} & 0 & 0 & 0 & 0 & \frac{12\sqrt{21}}{245} & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{14}}{245} & 0 & 0 & 0 & 0 & \frac{12\sqrt{21}}{245} & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{21}}{245} & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}}{49} \end{pmatrix}$

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Table 8

No.	multipole	matrix																																																																																																														
482	$\mathbb{Q}_{2,-1}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{6\sqrt{42}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{42}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{6\sqrt{42}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{36\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{9\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{36\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{18\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{4\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{4\sqrt{42}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{9\sqrt{70}}{245}$</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	$\frac{12\sqrt{70}}{245}$	0	0	0	0	0	0	$\frac{6\sqrt{42}}{35}$	0	0	0	0	$-\frac{4\sqrt{42}}{245}$	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{21}}{49}$	0	0	0	0	0	0	$-\frac{6\sqrt{42}}{35}$	0	0	0	0	$-\frac{36\sqrt{7}}{245}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{9\sqrt{70}}{245}$	0	0	0	0	0	0	$-\frac{36\sqrt{7}}{245}$	0	0	0	0	$-\frac{18\sqrt{7}}{245}$	0	0	0	0	0	0	$-\frac{4\sqrt{21}}{49}$	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{42}}{245}$	0	0	0	0	$\frac{18\sqrt{7}}{245}$	0	0	0	0	0	0	$\frac{12\sqrt{70}}{245}$	0	0	0	0	$\frac{9\sqrt{70}}{245}$	0	0
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0	0	$-\frac{8\sqrt{210}}{245}$	0	0	0	0	$-\frac{9\sqrt{35}}{245}$	0	0	0																																																																																																						

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Table 8

No.	multipole	matrix
484	$\mathbb{G}_{1,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3}i & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{5}i \\ \sqrt{5}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{3}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
485	$\mathbb{G}_{1,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\sqrt{2}i & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\sqrt{3}i & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\sqrt{3}i & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\sqrt{2}i \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{3}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{3}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

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Table 8

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492	$\mathbb{G}_{3,-2}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}i}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}i}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{5}i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{3\sqrt{5}i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{30}i}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{5\sqrt{6}i}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{6}i}{14}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{30}i}{14}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{5}i}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{5}i}{7}$	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{30}i}{14}$	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{6}i}{14}$	0	0	0	0	0	0	0	0
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Table 8

No.	multipole	matrix
494	$\mathbb{T}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
495	$\mathbb{T}_{2,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{7} \\ -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
496	$\mathbb{T}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
497	$\mathbb{T}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{5}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

continued ...

Table 8

No.	multipole	matrix
500	$\mathbb{T}_{4,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}i}{42} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{42} & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & \frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & -\frac{5\sqrt{7}i}{42} & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \end{pmatrix}$
501	$\mathbb{T}_{4,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5i}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{42} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5i}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix																																																																																																				
502	$\mathbb{T}_{4,1}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{2}i}{42}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}i}{42}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{3}i}{42}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{5}i}{42}$</td></tr> <tr><td>$\frac{\sqrt{5}i}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{5\sqrt{3}i}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{5\sqrt{6}i}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{2}i}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$\frac{5\sqrt{2}i}{42}$	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{6}i}{42}$	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{3}i}{42}$	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{5}i}{42}$	$\frac{\sqrt{5}i}{42}$	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{3}i}{42}$	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{6}i}{42}$	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{2}i}{42}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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continued ...

Table 8

No.	multipole	matrix
504	$\mathbb{T}_{4,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}i}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{3}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
505	$\mathbb{T}_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
506	$\mathbb{T}_{4,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{7}i}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{7}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{105}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{70}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
508	$\mathbb{M}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & -\frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{6\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} \\ \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{8}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{8}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
509	$\mathbb{M}_{1,0}^{(a)}$	$\begin{pmatrix} \frac{9}{5} & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{3}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{9}{5} & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 \\ 0 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 & 0 \\ \frac{2}{5} & 0 & 0 & 0 & 0 & 0 & \frac{6}{5} & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{6}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -2 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
510	$\mathbb{M}_{1,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{2}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 \\ \frac{1}{5} & 0 & 0 & 0 & 0 & \frac{8}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{8}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & \frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{9\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & -\frac{9\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{12\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
512	$\mathbb{M}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
513	$\mathbb{M}_{3,1}^{(a)}$	$\begin{pmatrix} 0 & \frac{12}{35} & 0 & 0 & 0 & 0 & \frac{9\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{12}{35} & 0 & 0 & 0 & 0 & -\frac{3}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} \\ -\frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & \frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{9\sqrt{6}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{15}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
514	$\mathbb{M}_{3,0}^{(a)}$	$\begin{pmatrix} -\frac{6}{35} & 0 & 0 & 0 & 0 & -\frac{18}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{18}{35} & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{18}{35} & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{6}{35} & 0 & 0 & 0 & 0 & -\frac{18}{35} & 0 \\ 0 & 0 & 0 & 0 & -\frac{3}{7} & 0 & 0 & 0 & 0 & 0 \\ -\frac{18}{35} & 0 & 0 & 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{12}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{6}}{35} & 0 & 0 & 0 & 0 & -\frac{12}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{18}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{3}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} \end{pmatrix}$
515	$\mathbb{M}_{3,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{12}{35} & 0 & 0 & 0 & 0 & -\frac{3}{5} & 0 & 0 & 0 & 0 \\ 0 & \frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{12}{35} & 0 & 0 & 0 & 0 & \frac{9\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{9\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & \frac{12\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
516	$\mathbb{M}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 & 0 \end{pmatrix}$
517	$\mathbb{M}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{9\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{9\sqrt{5}}{35} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
518	$\mathbb{M}_{1,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} \\ -\frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2}{5} & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
519	$\mathbb{M}_{1,0}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{3}{5} & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 & 0 \\ 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 \\ 0 & 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4}{5} & 0 & 0 & 0 & 0 & \frac{3}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{4}{5} & 0 & 0 & 0 & 0 & -\frac{3}{5} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -1 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
520	$\mathbb{M}_{1,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{5} & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 \\ -\frac{2}{5} & 0 & 0 & 0 & 0 & 0 & \frac{4}{5} & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}}{5} & 0 & 0 & 0 & 0 & \frac{4}{5} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{10}}{5} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{5} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
522	$M_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{8}{35} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}}{105} & 0 & 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & \frac{6}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
523	$M_{3,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{15}}{175} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}}{175} & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{525} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{75} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{35} \\ \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & \frac{12}{35} & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{30}}{525} & 0 & 0 & 0 & 0 & -\frac{24\sqrt{5}}{175} & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
524	$\mathbb{M}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} \frac{\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{175} & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{15}}{175} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{15}}{175} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{175} & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{175} & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{15}}{175} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{4}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}}{175} & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{525} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}}{175} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}}{175} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12}{35} & 0 & 0 & 0 & 0 & 0 \\ \frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{175} & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{30}}{525} & 0 & 0 & 0 & 0 & \frac{24\sqrt{5}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}}{75} & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{175} & 0 & 0 \\ 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & -\frac{12}{35} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix																																																																																																														
526	$\mathbb{M}_{3,-2}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{\sqrt{6}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{6}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{6}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{5}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{8}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{4\sqrt{6}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{5}}{35}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{105}$	0	0	0	0	0	0	$\frac{\sqrt{6}}{35}$	0	0	0	0	$\frac{4\sqrt{6}}{105}$	0	0	0	0	0	0	$-\frac{\sqrt{6}}{35}$	0	0	0	0	$\frac{8}{35}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{6\sqrt{5}}{35}$	0	0	0	0	0	0	$\frac{8}{35}$	0	0	0	0	$-\frac{6}{35}$	0	0	0	0	0	0	$\frac{4\sqrt{6}}{105}$	0	0	0	0	$\frac{6}{35}$	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{105}$	0	0	0	0	$\frac{6\sqrt{5}}{35}$	0	0	0
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0	0	0	0	0	0	$\frac{10\sqrt{5}}{63}$	0	0	0																																																																																													
0	0	0	0	0	0	0	$-\frac{10\sqrt{5}}{63}$	0	0																																																																																													
0	0	0	0	0	0	0	0	$\frac{5\sqrt{5}}{63}$	0																																																																																													
0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{5}}{63}$																																																																																													

continued ...

Table 8

No.	multipole	matrix
534	$\mathbb{M}_{5,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{6}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{63} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{63} & 0 \end{pmatrix}$
535	$\mathbb{M}_{5,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{21}}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{21}}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{63} & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
536	$\mathbb{M}_{5,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{63} & 0 & 0 & 0 & 0 \end{pmatrix}$
537	$\mathbb{M}_{5,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{21} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
538	$\mathbb{M}_{5,-5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
539	$\mathbb{M}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & -\frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{50} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{5}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{50} & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{25} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{5} \\ -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{30}}{50} & 0 & 0 & 0 & 0 & \frac{12\sqrt{5}}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{10}}{50} & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
540	$\mathbb{M}_{1,0}^{(1,1;a)}$	$\begin{pmatrix} \frac{3\sqrt{10}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{25} & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{10}}{25} & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{25} & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{10}}{25} & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{175} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{10}}{25} & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{1}{5} & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{25} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{5}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{50} & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}}{25} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{50} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4}{35} & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{10}}{50} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{30}}{50} & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{175} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}}{25} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{175} & 0 & 0 \\ 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & -\frac{4}{35} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
542	$\mathbb{M}_{3,3}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & \frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{63} & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{5}}{70} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{63} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
543	$\mathbb{M}_{3,2}^{(1,1;a)}$	$\begin{bmatrix} 0 & 0 & -\frac{4\sqrt{10}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{10}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{63} & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{10}}{70} & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{315} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}}{35} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{63} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 8

No.	multipole	matrix
544	$\mathbb{M}_{3,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{70} & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{70} & 0 & 0 \\ 0 & 0 & 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & \frac{1}{10} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{70} \\ \frac{\sqrt{15}}{70} & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{315} & 0 & 0 & 0 & 0 \\ 0 & -\frac{1}{10} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{315} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{70} & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{315} & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}}{70} & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{315} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{315} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
545	$\mathbb{M}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} -\frac{4}{35} & 0 & 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 \\ 0 & \frac{12}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & -\frac{12}{35} & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & \frac{3}{35} \\ 0 & 0 & 0 & 0 & \frac{2}{63} & 0 & 0 & 0 & 0 & 0 \\ \frac{3}{35} & 0 & 0 & 0 & 0 & -\frac{2}{45} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & -\frac{8}{315} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & \frac{8}{315} & 0 & 0 \\ 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 & \frac{2}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{63} \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
546	$\mathbb{M}_{3,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{70} & 0 & 0 & 0 & 0 & 0 \\ -\frac{8}{35} & 0 & 0 & 0 & 0 & \frac{1}{10} & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{70} & 0 & 0 & 0 \\ 0 & 0 & -\frac{8}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{315} & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{6}}{70} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{315} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}}{70} & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{315} & 0 & 0 & 0 \\ 0 & 0 & -\frac{1}{10} & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{315} & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}}{70} & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{315} & 0 \end{pmatrix}$
547	$\mathbb{M}_{3,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{10}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{70} & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{10}}{35} & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{63} & 0 & 0 & 0 & 0 \\ \frac{\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{315} & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{70} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{315} & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{63} & 0 \end{pmatrix}$

continued ...

Table 8

No.	multipole	matrix
548	$\mathbb{M}_{3,-3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{5}}{70} & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}}{315} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{63} & 0 & 0 & 0 & 0 \end{pmatrix}$

bra: $= |\frac{3}{2}, \frac{3}{2}; d\rangle, |\frac{3}{2}, \frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{1}{2}; d\rangle, |\frac{3}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{5}{2}; d\rangle, |\frac{5}{2}, \frac{3}{2}; d\rangle, |\frac{5}{2}, \frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{1}{2}; d\rangle, |\frac{5}{2}, -\frac{3}{2}; d\rangle, |\frac{5}{2}, -\frac{5}{2}; d\rangle$

ket: $= |\frac{5}{2}, \frac{5}{2}; f\rangle, |\frac{5}{2}, \frac{3}{2}; f\rangle, |\frac{5}{2}, \frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{3}{2}; f\rangle, |\frac{5}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{7}{2}; f\rangle, |\frac{7}{2}, \frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{3}{2}; f\rangle, |\frac{7}{2}, \frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{3}{2}; f\rangle, |\frac{7}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, -\frac{7}{2}; f\rangle$

Table 9: (d,f) block.

No.	multipole	matrix
549	$\mathbb{Q}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{7} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{1}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
551	$\mathbb{Q}_{1,-1}^{(a)}$	$\begin{pmatrix} -\frac{\sqrt{10}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 \end{pmatrix}$
552	$\mathbb{Q}_{3,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{105} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
553	$\mathbb{Q}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{21} \\ 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 \\ 0 & -\frac{4\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
555	$\mathbb{Q}_{3,0}^{(a)}$	$\begin{pmatrix} 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 \\ \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{1}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
557	$\mathbb{Q}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{5}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
559	$\mathbb{Q}_{5,5}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
560	$\mathbb{Q}_{5,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
561	$\mathbb{Q}_{5,3}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{14}}{33}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{14}}{33}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{2}}{33}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{10\sqrt{14}}{231}$ 0 0 0 0 0 0 $-\frac{5\sqrt{42}}{231}$ 0 0 0
		0 0 0 0 $-\frac{10\sqrt{35}}{231}$ 0 0 0 0 0 0 $\frac{\sqrt{14}}{77}$ 0 0
		0 0 0 0 0 $\frac{10\sqrt{14}}{231}$ 0 0 0 0 0 0 0 $\frac{2\sqrt{21}}{77}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{3}}{33}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
562	$\mathbb{Q}_{5,2}^{(a)}$	0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{35}}{33}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{7}}{11}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{21}}{33}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{1}{33}$
		0 0 $-\frac{5\sqrt{21}}{231}$ 0 0 0 0 0 0 $\frac{10\sqrt{7}}{231}$ 0 0 0 0
		0 0 0 $\frac{5\sqrt{105}}{231}$ 0 0 0 0 0 0 $-\frac{4\sqrt{35}}{231}$ 0 0 0
		0 0 0 0 $-\frac{5\sqrt{105}}{231}$ 0 0 0 0 0 0 0 $-\frac{2\sqrt{42}}{231}$ 0 0
		0 0 0 0 0 $\frac{5\sqrt{21}}{231}$ 0 0 0 0 0 0 0 $\frac{8\sqrt{14}}{231}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2}{33}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
563	$\mathbb{Q}_{5,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{33} & 0 \\ 0 & \frac{5\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{5}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{30}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{23}{231} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{231} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{33} & 0 \\ -\frac{5}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{25}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{50}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{50}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{25}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{231} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
565	$\mathbb{Q}_{5,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{11} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{23}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{30}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{5}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}}{231} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{11} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{105}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{105}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{231} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
567	$\mathbb{Q}_{5,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{77} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
569	$\mathbb{Q}_{5,-5}^{(a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{7}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$
570	$\mathbb{Q}_{3,3}^{(1,-1;a)}$	$\begin{bmatrix} 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{210}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{16\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{25}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$

continued ...

Table 9

No.	multipole	matrix
571	$\mathbb{Q}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{16}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{15}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{35} & 0 \\ 0 & 0 & \frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{32\sqrt{15}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12}{35} & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12}{35} & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{24\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{10}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{7} \\ 0 & -\frac{24}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{30}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{48\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{24}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}}{105} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
573	$\mathbb{Q}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{16\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{16\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{7} & 0 & 0 & 0 \\ \frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{5}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{35} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{8}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{24}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{48\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{30}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{24}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{35} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
575	$\mathbb{Q}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{12}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{12}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{32\sqrt{15}}{105} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{35}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
577	$\mathbb{Q}_{5,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
578	$\mathbb{Q}_{5,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{75} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{25} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{7}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{30}}{75} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
579	$\mathbb{Q}_{5,3}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{70}}{75}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{70}}{75}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{10}}{75}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{8\sqrt{70}}{315}$ 0 0 0 0 0 0 $\frac{8\sqrt{210}}{105}$ 0 0 0
		0 0 0 0 $-\frac{8\sqrt{7}}{63}$ 0 0 0 0 0 0 $-\frac{8\sqrt{70}}{175}$ 0 0
		0 0 0 0 0 $\frac{8\sqrt{70}}{315}$ 0 0 0 0 0 0 0 $-\frac{16\sqrt{105}}{175}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{16\sqrt{15}}{75}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
580	$\mathbb{Q}_{5,2}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{7}}{15}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{35}}{25}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{105}}{75}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{5}}{75}$
		0 0 $-\frac{4\sqrt{105}}{315}$ 0 0 0 0 0 0 $-\frac{16\sqrt{35}}{105}$ 0 0 0
		0 0 0 $\frac{4\sqrt{21}}{63}$ 0 0 0 0 0 0 $\frac{32\sqrt{7}}{105}$ 0 0 0
		0 0 0 0 $-\frac{4\sqrt{21}}{63}$ 0 0 0 0 0 0 $\frac{16\sqrt{210}}{525}$ 0 0
		0 0 0 0 0 $\frac{4\sqrt{105}}{315}$ 0 0 0 0 0 0 0 $-\frac{64\sqrt{70}}{525}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{16\sqrt{5}}{75}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
581	$\mathbb{Q}_{5,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{25} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{75} & 0 \\ 0 & \frac{4\sqrt{30}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{104}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{88\sqrt{30}}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{315} & 0 & 0 & 0 & 0 & 0 & -\frac{184\sqrt{5}}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{7}}{105} \end{pmatrix}$
582	$\mathbb{Q}_{5,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{15} & 0 \\ -\frac{4\sqrt{5}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{105} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																						
583	$\mathbb{Q}_{5,-1}^{(1,-1;a)}$	<table border="1"> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{5}}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{5}}{25}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{3}}{15}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4}{15}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{7}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{4\sqrt{30}}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{184\sqrt{5}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{8\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{88\sqrt{30}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{8\sqrt{6}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{2}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{104}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{3}}{21}$</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	0	0	0	0	0	0	0	$-\frac{4\sqrt{5}}{75}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{5}}{25}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{3}}{15}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4}{15}$	0	0	0	0	0	0	0	0	0	0	$\frac{8\sqrt{7}}{105}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{315}$	0	0	0	0	0	0	$-\frac{184\sqrt{5}}{525}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{3}}{63}$	0	0	0	0	0	0	$\frac{88\sqrt{30}}{525}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{6}}{63}$	0	0	0	0	0	0	$\frac{8\sqrt{2}}{105}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{3}}{63}$	0	0	0	0	0	0	$-\frac{104}{105}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{315}$	0	0	0	0	0	0	$\frac{8\sqrt{3}}{21}$	0	0	0
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$-\frac{4\sqrt{30}}{315}$	0	0	0	0	0	0	$-\frac{184\sqrt{5}}{525}$	0	0	0	0	0	0	0																																																																																																																																										
0	$\frac{8\sqrt{3}}{63}$	0	0	0	0	0	0	$\frac{88\sqrt{30}}{525}$	0	0	0	0	0	0																																																																																																																																										
0	0	$-\frac{8\sqrt{6}}{63}$	0	0	0	0	0	0	$\frac{8\sqrt{2}}{105}$	0	0	0	0	0																																																																																																																																										
0	0	0	$\frac{8\sqrt{3}}{63}$	0	0	0	0	0	0	$-\frac{104}{105}$	0	0	0	0																																																																																																																																										
0	0	0	0	$-\frac{4\sqrt{30}}{315}$	0	0	0	0	0	0	$\frac{8\sqrt{3}}{21}$	0	0	0																																																																																																																																										
<table border="1"> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{5}}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{105}}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{35}}{25}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{7}}{15}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{16\sqrt{5}}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{4\sqrt{105}}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{64\sqrt{70}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{4\sqrt{21}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{16\sqrt{210}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{4\sqrt{21}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{32\sqrt{7}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{105}}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{16\sqrt{35}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	0	0	0	0	0	0	$\frac{2\sqrt{5}}{75}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{105}}{75}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{35}}{25}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{7}}{15}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{16\sqrt{5}}{75}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{105}}{315}$	0	0	0	0	0	0	$-\frac{64\sqrt{70}}{525}$	0	0	0	0	0	0	0	0	$\frac{4\sqrt{21}}{63}$	0	0	0	0	0	0	$\frac{16\sqrt{210}}{525}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{21}}{63}$	0	0	0	0	0	0	$\frac{32\sqrt{7}}{105}$	0	0	0	0	0	0	0	0	$\frac{4\sqrt{105}}{315}$	0	0	0	0	0	0	$-\frac{16\sqrt{35}}{105}$	0	0	0	0		
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0	0	$-\frac{4\sqrt{21}}{63}$	0	0	0	0	0	0	$\frac{32\sqrt{7}}{105}$	0	0	0	0	0																																																																																																																																										
0	0	0	$\frac{4\sqrt{105}}{315}$	0	0	0	0	0	0	$-\frac{16\sqrt{35}}{105}$	0	0	0	0																																																																																																																																										

continued ...

Table 9

No.	multipole	matrix
585	$\mathbb{Q}_{5,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}}{75} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{70}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{7}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{30}}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{70}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{70}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{7}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
587	$\mathbb{Q}_{5,-5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{15} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{15} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
588	$\mathbb{Q}_{1,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{\sqrt{2}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{18}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{14} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
589	$\mathbb{Q}_{1,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{9\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{9\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{\sqrt{5}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{18}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
591	$\mathbb{Q}_{3,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{700} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3}{140} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{140} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{175} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{140} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{140} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{140} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
592	$\mathbb{Q}_{3,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{3\sqrt{5}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{70} \\ 0 & 0 & -\frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{210} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{140} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{420} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{210} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
593	$\mathbb{Q}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{9\sqrt{2}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{70} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{100} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{70} & 0 \\ 0 & \frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{2}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{210} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{420} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{140} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{420} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{420} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{3\sqrt{3}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{2}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{70} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{2}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{70} & 0 & 0 \\ -\frac{\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{70} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{70} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
595	$\mathbb{Q}_{3,-1}^{(1,0;a)}$	$\begin{pmatrix} -\frac{3\sqrt{5}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{100} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{9\sqrt{2}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{420} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{420} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{2}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{420} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{210} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{70} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{140} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{30}}{700} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{5}}{350} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{210} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{420} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{210} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
597	$\mathbb{Q}_{3,-3}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{\sqrt{42}}{70}$ 0 0 0 0 0 0 0
		$-\frac{3}{140}$ 0 0 0 0 0 0 $-\frac{\sqrt{6}}{35}$ 0 0 0 0 0 0
		0 $-\frac{3\sqrt{15}}{700}$ 0 0 0 0 0 0 $-\frac{\sqrt{6}}{70}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{\sqrt{7}}{140}$ 0 0 0 0 0 0 0
		$-\frac{\sqrt{6}}{35}$ 0 0 0 0 0 0 $\frac{3}{140}$ 0 0 0 0 0 0 0
		0 $-\frac{4\sqrt{15}}{175}$ 0 0 0 0 0 0 $\frac{\sqrt{6}}{140}$ 0 0 0 0 0 0
		0 0 $-\frac{\sqrt{6}}{35}$ 0 0 0 0 0 0 0 $\frac{\sqrt{2}}{140}$ 0 0 0 0 0
598	$\mathbb{Q}_{5,5}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{4}{77}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{2\sqrt{210}}{539}$ 0 0 0 0 0 0 $-\frac{\sqrt{35}}{1617}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{1}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
599	$\mathbb{Q}_{5,4}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{70}}{385}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{30}}{385}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $\frac{2\sqrt{105}}{539}$ 0 0 0 0 0 0 $\frac{\sqrt{42}}{1617}$ 0 0
		0 0 0 0 0 $-\frac{2\sqrt{105}}{539}$ 0 0 0 0 0 0 $\frac{\sqrt{70}}{8085}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{5}}{1155}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
600	$\mathbb{Q}_{5,3}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{105}}{1155}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{105}}{1155}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{15}}{1155}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $-\frac{4\sqrt{105}}{1617}$ 0 0 0 0 0 $-\frac{\sqrt{35}}{1617}$ 0 0 0
		0 0 0 0 $\frac{10\sqrt{42}}{1617}$ 0 0 0 0 0 0 $\frac{\sqrt{105}}{8085}$ 0 0
		0 0 0 0 0 $-\frac{4\sqrt{105}}{1617}$ 0 0 0 0 0 0 $\frac{\sqrt{70}}{2695}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{10}}{1155}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
601	$\mathbb{Q}_{5,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{385} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{385} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{1155} \\ 0 & 0 & \frac{\sqrt{70}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{4851} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{14}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{4851} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{8085} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{105}}{24255} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{3465} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{385} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{1155} & 0 \\ 0 & -\frac{2\sqrt{5}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{3234} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{10\sqrt{2}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{6}}{9702} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{20}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{4851} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{735} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{23\sqrt{30}}{48510} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{9702} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																							
603	$\mathbb{Q}_{5,0}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{3}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{15}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{15}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{3}}{231}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{5\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{3}}{539}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{10\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{3}}{539}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{30}}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}}{1617}$</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	$\frac{2\sqrt{3}}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{15}}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{15}}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{3}}{231}$	0	0	0	$\frac{\sqrt{30}}{1617}$	0	0	0	0	0	0	$\frac{\sqrt{5}}{1617}$	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{30}}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{3}}{539}$	0	0	0	0	0	0	0	$\frac{10\sqrt{30}}{1617}$	0	0	0	0	0	0	0	$\frac{\sqrt{10}}{1617}$	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{30}}{1617}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{1617}$	0	0	0	0	0	0	0	0	$\frac{5\sqrt{30}}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{3}}{539}$	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{30}}{1617}$	0	0	0	0	0	$\frac{\sqrt{5}}{1617}$	0	0	
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0	0	$\frac{20}{539}$	0	0	0	0	0	0	$-\frac{\sqrt{3}}{4851}$	0	0	0	0	0																																																																																																																																											
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0	0	0	0	$\frac{2\sqrt{5}}{539}$	0	0	0	0	0	0	$-\frac{5\sqrt{2}}{3234}$	0	0	0																																																																																																																																											

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Table 9

No.	multipole	matrix
605	$\mathbb{Q}_{5,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{385} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{3465} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{70}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{105}}{24255} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{14}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{8085} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{14}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{4851} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{70}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{4851} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{105}}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{2695} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{42}}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{8085} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{105}}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{1617} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
607	$\mathbb{Q}_{5,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{105}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{8085} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{105}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{1617} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{210}}{539} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
609	$\mathbb{Q}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{4\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{30}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{32}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{64\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{96\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{64\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{32}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & -\frac{8\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{48\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{48\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{35} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
611	$\mathbb{Q}_{1,-1}^{(1,1;a)}$	$\begin{pmatrix} \frac{8}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{15}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{30}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{10}}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{32}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{64\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{96\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{64\sqrt{10}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{32}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{20\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{16\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
613	$\mathbb{Q}_{3,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{2\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{21} \\ 0 & 0 & \frac{20\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 \\ 0 & -\frac{8\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
615	$\mathbb{Q}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{6}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{21} & 0 & 0 \\ \frac{20}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{20}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 \end{pmatrix}$
		$\begin{pmatrix} -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
617	$\mathbb{Q}_{3,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{20\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{20\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{20\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{20\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
619	$\mathbb{G}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{8\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{16\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{35} \\ 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{35}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{12\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} \\ 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{22i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{7} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
621	$\mathbb{G}_{2,0}^{(a)}$	$\begin{pmatrix} 0 & \frac{24i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{24i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{35} & 0 & 0 \\ -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{7} & 0 \end{pmatrix}$
		$\begin{pmatrix} -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{7} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
623	$\mathbb{G}_{2,-2}^{(a)}$	0 0 0 0 0 $\frac{2\sqrt{35}i}{35}$ 0 0 0 0 0 0 0
		$-\frac{8\sqrt{10}i}{35}$ 0 0 0 0 0 $\frac{2\sqrt{15}i}{35}$ 0 0 0 0 0 0
		0 $-\frac{16\sqrt{2}i}{35}$ 0 0 0 0 0 0 $\frac{2\sqrt{5}i}{35}$ 0 0 0 0 0
		0 0 $-\frac{8\sqrt{3}i}{35}$ 0 0 0 0 0 0 $\frac{2i}{35}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{4\sqrt{35}i}{35}$ 0 0 0 0 0 0
		$-\frac{2\sqrt{15}i}{35}$ 0 0 0 0 0 0 $-\frac{8\sqrt{10}i}{35}$ 0 0 0 0 0
		0 $-\frac{6\sqrt{3}i}{35}$ 0 0 0 0 0 0 $-\frac{4\sqrt{30}i}{35}$ 0 0 0 0
		0 0 $-\frac{6\sqrt{3}i}{35}$ 0 0 0 0 0 0 0 $-\frac{16i}{35}$ 0 0 0
		0 0 0 $-\frac{2\sqrt{15}i}{35}$ 0 0 0 0 0 0 0 $-\frac{4\sqrt{5}i}{35}$ 0 0 0
624	$\mathbb{G}_{4,4}^{(a)}$	0 0 0 0 0 $-\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $-\frac{4\sqrt{21}i}{175}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{4i}{25}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $-\frac{8\sqrt{35}i}{525}$ 0 0
		0 0 0 0 0 $\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $-\frac{16\sqrt{21}i}{525}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{6}i}{75}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
625	$\mathbb{G}_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{105} & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{14}i}{175} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{105} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}i}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{25} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{14}i}{105} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}i}{75} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{25} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & -\frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}i}{175} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{175} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22i}{175} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{175} \\ 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & \frac{34\sqrt{2}i}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}i}{175} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}i}{175} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
627	$\mathbb{G}_{4,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{175} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{175} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}i}{175} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}i}{175} & 0 \\ 0 & -\frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{525} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{75} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{26\sqrt{6}i}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}i}{525} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & -\frac{4i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{175} & 0 & 0 \\ \frac{4i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}i}{525} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}i}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{105} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
629	$\mathbb{G}_{4,-1}^{(a)}$	$\begin{array}{ccccccccccccc} \frac{2i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{175} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{26\sqrt{6}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{525} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{105} & 0 & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}i}{175} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{34\sqrt{2}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{5}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{105} & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
631	$\mathbb{G}_{4,-3}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{2\sqrt{2}i}{25}$ 0 0 0 0 0 0 0
		$\frac{2\sqrt{21}i}{105}$ 0 0 0 0 0 0 $\frac{4\sqrt{14}i}{175}$ 0 0 0 0 0 0
		0 $-\frac{2\sqrt{35}i}{105}$ 0 0 0 0 0 0 $\frac{6\sqrt{14}i}{175}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{2\sqrt{3}i}{25}$ 0 0 0 0 0 0 0
		$\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{525}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $-\frac{2\sqrt{14}i}{75}$ 0 0 0 0 0 0
		0 0 $-\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 0 $-\frac{2\sqrt{42}i}{105}$ 0 0 0 0 0
632	$\mathbb{G}_{4,-4}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{4i}{25}$ 0 0 0 0 0 0 0 0
		$\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $-\frac{4\sqrt{21}i}{175}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{4\sqrt{6}i}{75}$ 0 0 0 0 0 0 0 0 0
		$\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 $\frac{16\sqrt{21}i}{525}$ 0 0 0 0 0 0 0
		0 $\frac{4\sqrt{14}i}{105}$ 0 0 0 0 0 0 0 $\frac{8\sqrt{35}i}{525}$ 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
633	$\mathbb{G}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}i}{35} \\ 0 & 0 & \frac{2\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{9\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} \\ 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{6}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{14} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
635	$\mathbb{G}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{35} & 0 & 0 & 0 \\ \frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{7} & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{9\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{6}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{14} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
637	$\mathbb{G}_{2,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{35} & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{35} & 0 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{70} & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
639	$\mathbb{G}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{140} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{140} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{28} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{20} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{140} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}i}{140} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
640	$\mathbb{G}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{35}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}i}{490} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{490} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{7}i}{490} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{70} \\ 0 & 0 & -\frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{49} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{35}i}{245} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{490} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{14}i}{980} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{42}i}{980} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{3}i}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
641	$\mathbb{G}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{70}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{245} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{210}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{490} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{490} & 0 & 0 \\ 0 & \frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{70}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{490} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{140} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{980} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{42}i}{980} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{140} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{\sqrt{7}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}i}{490} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{42}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}i}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}i}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{70}i}{490} & 0 & 0 \\ -\frac{\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{98} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}i}{245} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{98} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}i}{245} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{98} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
643	$\mathbb{G}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{\sqrt{7}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{105}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{210}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{490} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{70}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{245} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{13\sqrt{42}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{70}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{140} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{70}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{490} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{98} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{42}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{7}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{210}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{35}i}{490} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}i}{490} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{42}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{35}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{17\sqrt{14}i}{980} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{35}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{490} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{7}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{49} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
645	$\mathbb{G}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}i}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{5}i}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{140} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{20} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{22}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
649	$\mathbb{G}_{6,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}i}{2541} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{770}i}{2541} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{55}i}{2541} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
650	$\mathbb{G}_{6,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{231}i}{2541} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{77}i}{847} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{462}i}{2541} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{66}i}{2541} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
651	$\mathbb{G}_{6,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}i}{7623} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{1155}i}{7623} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{154}i}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{462}i}{7623} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{33}i}{7623} & 0 \end{pmatrix}$
652	$\mathbb{G}_{6,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{154}i}{5082} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{462}i}{15246} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{231}i}{7623} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{385}i}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2310}i}{15246} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{66}i}{15246} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
653	$\mathbb{G}_{6,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{11}i}{2541} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{165}i}{2541} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{22}i}{2541} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{22}i}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{165}i}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{11}i}{2541} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{66}i}{15246} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2310}i}{15246} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{385}i}{2541} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{231}i}{7623} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{462}i}{15246} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{154}i}{5082} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
655	$\mathbb{G}_{6,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}i}{7623} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}i}{7623} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}i}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{1155}i}{7623} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{231}i}{7623} & 0 & 0 \end{pmatrix}$
656	$\mathbb{G}_{6,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{66}i}{2541} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}i}{2541} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{77}i}{847} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{231}i}{2541} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
659	$\mathbb{G}_{6,-6}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$ $\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
660	$\mathbb{G}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{8\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{32\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{35} \\ 0 & 0 & -\frac{12\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{36\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{6}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{36\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
661	$\mathbb{G}_{2,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{12\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{35} & 0 \\ 0 & \frac{24\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{24\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22\sqrt{6}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{24\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}i}{21} \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{8\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{3}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}i}{35} & 0 \\ -\frac{4\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{16\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4i}{7} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
663	$\mathbb{G}_{2,-1}^{(1,0;a)}$	$\begin{array}{ccccccccccccc} -\frac{8\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{24\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{24\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{22\sqrt{6}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{24\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{7} & 0 & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{16\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{32\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{210}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{12\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{36\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{36\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{105} & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
665	$\mathbb{G}_{4,4}^{(1,0;a)}$	0 0 0 0 0 $-\frac{2\sqrt{70}i}{105}$ 0 0 0 0 0 0 $\frac{12\sqrt{105}i}{175}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{12\sqrt{5}i}{25}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $\frac{4\sqrt{70}i}{35}$ 0 0 0 0 0 0 $\frac{4\sqrt{7}i}{105}$ 0 0
		0 0 0 0 0 $\frac{4\sqrt{70}i}{35}$ 0 0 0 0 0 0 $\frac{8\sqrt{105}i}{525}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{30}i}{75}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
666	$\mathbb{G}_{4,3}^{(1,0;a)}$	0 0 0 0 $\frac{\sqrt{7}i}{21}$ 0 0 0 0 0 0 $-\frac{18\sqrt{70}i}{175}$ 0 0
		0 0 0 0 0 $-\frac{\sqrt{105}i}{105}$ 0 0 0 0 0 0 0 $-\frac{12\sqrt{70}i}{175}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{6\sqrt{10}i}{25}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $-\frac{4\sqrt{70}i}{35}$ 0 0 0 0 0 0 $-\frac{\sqrt{210}i}{105}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{70}i}{75}$ 0 0
		0 0 0 0 0 $\frac{4\sqrt{70}i}{35}$ 0 0 0 0 0 0 0 $\frac{\sqrt{105}i}{525}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{15}i}{25}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix																																																																																																																																		
667	$\mathbb{G}_{4,2}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{2i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{3}i}{35}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{15}i}{175}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{30}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{66\sqrt{5}i}{175}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{105}i}{175}$</td></tr> <tr><td>0</td><td>0</td><td>$\frac{12\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{4i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{3}i}{105}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{17\sqrt{10}i}{525}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{30}i}{175}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{105}i}{175}$</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	$-\frac{2i}{21}$	0	0	0	0	0	$\frac{18\sqrt{3}i}{35}$	0	0	0	0	0	0	0	$\frac{\sqrt{6}i}{21}$	0	0	0	0	0	$\frac{6\sqrt{15}i}{175}$	0	0	0	0	0	0	0	$-\frac{\sqrt{30}i}{105}$	0	0	0	0	0	$-\frac{66\sqrt{5}i}{175}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{6\sqrt{105}i}{175}$	0	0	$\frac{12\sqrt{5}i}{35}$	0	0	0	0	0	$\frac{4\sqrt{15}i}{105}$	0	0	0	0	0	0	$-\frac{4i}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{3}i}{105}$	0	0	0	0	0	0	0	$-\frac{4i}{7}$	0	0	0	0	0	$-\frac{17\sqrt{10}i}{525}$	0	0	0	0	0	0	0	$\frac{12\sqrt{5}i}{35}$	0	0	0	0	0	$-\frac{3\sqrt{30}i}{175}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{105}i}{175}$	0	0	0	0	0	0	0	0	0	0	0	0	0
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<table border="1"> <tr><td>0</td><td>0</td><td>$\frac{\sqrt{2}i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{6}i}{35}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{6}i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{2}i}{35}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{3}i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{24\sqrt{30}i}{175}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{5}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{18\sqrt{30}i}{175}$</td></tr> <tr><td>0</td><td>$-\frac{8\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{2}i}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{4\sqrt{2}i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{6}i}{105}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{3}i}{15}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{2}i}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}i}{525}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{13\sqrt{30}i}{525}$</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{42}i}{105}$</td></tr> </table>	0	0	$\frac{\sqrt{2}i}{21}$	0	0	0	0	0	0	$-\frac{12\sqrt{6}i}{35}$	0	0	0	0	0	0	$-\frac{\sqrt{6}i}{21}$	0	0	0	0	0	0	$\frac{6\sqrt{2}i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{3}i}{21}$	0	0	0	0	0	0	$\frac{24\sqrt{30}i}{175}$	0	0	0	0	0	0	$-\frac{\sqrt{5}i}{105}$	0	0	0	0	0	0	$-\frac{18\sqrt{30}i}{175}$	0	$-\frac{8\sqrt{5}i}{35}$	0	0	0	0	0	0	$-\frac{2\sqrt{2}i}{21}$	0	0	0	0	0	0	$\frac{4\sqrt{2}i}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{6}i}{105}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}i}{15}$	0	0	0	0	0	0	$-\frac{4\sqrt{2}i}{7}$	0	0	0	0	0	0	$\frac{\sqrt{5}i}{525}$	0	0	0	0	0	0	$\frac{8\sqrt{5}i}{35}$	0	0	0	0	0	0	$-\frac{13\sqrt{30}i}{525}$	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}i}{105}$		
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Table 9

No.	multipole	matrix																																																																																																																																		
669	$\mathbb{G}_{4,0}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>$-\frac{2\sqrt{5}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{2}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{2\sqrt{30}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{10}i}{35}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{10}i}{35}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{5}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{2}i}{35}$</td><td>0</td><td>0</td></tr> <tr><td>$\frac{4\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{30}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{12\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{2}i}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{8\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{15}i}{105}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{15}i}{105}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{2}i}{105}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{5}i}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}i}{105}$</td><td>0</td></tr> </table>	0	$-\frac{2\sqrt{5}i}{105}$	0	0	0	0	0	0	$\frac{18\sqrt{2}i}{35}$	0	0	0	0	0	0	$\frac{2\sqrt{30}i}{105}$	0	0	0	0	0	0	$-\frac{6\sqrt{10}i}{35}$	0	0	0	0	0	0	$-\frac{2\sqrt{30}i}{105}$	0	0	0	0	0	0	$-\frac{6\sqrt{10}i}{35}$	0	0	0	0	0	0	$\frac{2\sqrt{5}i}{105}$	0	0	0	0	0	$\frac{18\sqrt{2}i}{35}$	0	0	$\frac{4\sqrt{5}i}{35}$	0	0	0	0	0	0	$\frac{2\sqrt{30}i}{105}$	0	0	0	0	0	0	$-\frac{12\sqrt{5}i}{35}$	0	0	0	0	0	0	$-\frac{8\sqrt{2}i}{105}$	0	0	0	0	0	0	$\frac{8\sqrt{5}i}{35}$	0	0	0	0	0	0	$-\frac{2\sqrt{15}i}{105}$	0	0	0	0	0	0	$\frac{8\sqrt{5}i}{35}$	0	0	0	0	0	$\frac{2\sqrt{15}i}{105}$	0	0	0	0	0	0	0	$-\frac{12\sqrt{5}i}{35}$	0	0	0	0	0	$\frac{8\sqrt{2}i}{105}$	0	0	0	0	0	0	0	$\frac{4\sqrt{5}i}{35}$	0	0	0	0	0	$-\frac{2\sqrt{30}i}{105}$	0
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continued ...

Table 9

No.	multipole	matrix
671	$\mathbb{G}_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{105}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{66\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{18\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{12\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{30}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{10}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{105} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{105}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{70}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{7}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{18\sqrt{70}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{70}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{75} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{70}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{105} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
673	$\mathbb{G}_{4,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{5}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{70}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{105}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{70}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{70}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
675	$\mathbb{G}_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{24\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{21}i}{2450} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{16\sqrt{42}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{105}i}{2450} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{9\sqrt{35}i}{2450} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}i}{350} \\ 0 & 0 & \frac{9\sqrt{35}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}i}{3675} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{27\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{21}i}{3675} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{27\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}i}{1225} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{35}i}{1225} & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}i}{3675} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{525} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{36\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}i}{1225} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{21}i}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{7}i}{1225} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{42}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}i}{1225} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{70}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{105}i}{1225} \\ 0 & -\frac{9\sqrt{70}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{18\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22\sqrt{21}i}{3675} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{18\sqrt{7}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}i}{1225} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{70}i}{1225} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}i}{3675} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{105} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix													
677	$\mathbb{G}_{2,0}^{(1,1;a)}$	0	$\frac{24\sqrt{21}i}{1225}$	0	0	0	0	0	$-\frac{3\sqrt{210}i}{2450}$	0	0	0	0	0	0
		0	0	$\frac{12\sqrt{14}i}{1225}$	0	0	0	0	0	$-\frac{9\sqrt{42}i}{2450}$	0	0	0	0	0
		0	0	0	$-\frac{12\sqrt{14}i}{1225}$	0	0	0	0	0	$-\frac{9\sqrt{42}i}{2450}$	0	0	0	0
		0	0	0	0	$-\frac{24\sqrt{21}i}{1225}$	0	0	0	0	0	$-\frac{3\sqrt{210}i}{2450}$	0	0	0
		$\frac{3\sqrt{21}i}{245}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}i}{245}$	0	0	0	0	0	0
		0	$-\frac{3\sqrt{21}i}{1225}$	0	0	0	0	0	$-\frac{2\sqrt{210}i}{1225}$	0	0	0	0	0	0
		0	0	$-\frac{12\sqrt{21}i}{1225}$	0	0	0	0	0	$-\frac{4\sqrt{7}i}{1225}$	0	0	0	0	0
		0	0	0	$-\frac{12\sqrt{21}i}{1225}$	0	0	0	0	0	$\frac{4\sqrt{7}i}{1225}$	0	0	0	0
		0	0	0	0	$-\frac{3\sqrt{21}i}{1225}$	0	0	0	0	0	$\frac{2\sqrt{210}i}{1225}$	0	0	0
		0	0	0	0	0	$\frac{3\sqrt{21}i}{245}$	0	0	0	0	0	$\frac{2\sqrt{14}i}{245}$	0	0
678	$\mathbb{G}_{2,-1}^{(1,1;a)}$	$-\frac{12\sqrt{70}i}{1225}$	0	0	0	0	0	0	$\frac{3\sqrt{105}i}{1225}$	0	0	0	0	0	0
		0	$\frac{4\sqrt{42}i}{1225}$	0	0	0	0	0	0	$\frac{3\sqrt{105}i}{1225}$	0	0	0	0	0
		0	0	$\frac{4\sqrt{21}i}{245}$	0	0	0	0	0	$\frac{9\sqrt{7}i}{1225}$	0	0	0	0	0
		0	0	0	$\frac{36\sqrt{7}i}{1225}$	0	0	0	0	0	$\frac{3\sqrt{21}i}{1225}$	0	0	0	0
		0	0	0	0	0	0	$\frac{2\sqrt{3}i}{105}$	0	0	0	0	0	0	0
		$\frac{9\sqrt{70}i}{1225}$	0	0	0	0	0	0	$\frac{2\sqrt{105}i}{3675}$	0	0	0	0	0	0
		0	$\frac{18\sqrt{7}i}{1225}$	0	0	0	0	0	$-\frac{2\sqrt{70}i}{1225}$	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{2\sqrt{42}i}{525}$	0	0	0	0	0
		0	0	0	$-\frac{18\sqrt{7}i}{1225}$	0	0	0	0	0	$-\frac{22\sqrt{21}i}{3675}$	0	0	0	0
		0	0	0	0	$-\frac{9\sqrt{70}i}{1225}$	0	0	0	0	0	$-\frac{2\sqrt{7}i}{245}$	0	0	0

continued ...

Table 9

No.	multipole	matrix
679	$\mathbb{G}_{2,-2}^{(1,1;a)}$	0 0 0 0 0 0 $-\frac{3\sqrt{15}i}{350}$ 0 0 0 0 0 0 0
		$-\frac{8\sqrt{210}i}{1225}$ 0 0 0 0 0 0 $-\frac{9\sqrt{35}i}{2450}$ 0 0 0 0 0 0
		0 $-\frac{16\sqrt{42}i}{1225}$ 0 0 0 0 0 0 $-\frac{3\sqrt{105}i}{2450}$ 0 0 0 0 0
		0 0 $-\frac{24\sqrt{7}i}{1225}$ 0 0 0 0 0 0 $-\frac{3\sqrt{21}i}{2450}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{4\sqrt{15}i}{525}$ 0 0 0 0 0 0 0
		$\frac{9\sqrt{35}i}{1225}$ 0 0 0 0 0 0 $\frac{8\sqrt{210}i}{3675}$ 0 0 0 0 0 0
		0 $\frac{27\sqrt{7}i}{1225}$ 0 0 0 0 0 0 $\frac{4\sqrt{70}i}{1225}$ 0 0 0 0 0
		0 0 $\frac{27\sqrt{7}i}{1225}$ 0 0 0 0 0 0 0 $\frac{16\sqrt{21}i}{3675}$ 0 0 0 0
		0 0 0 $\frac{9\sqrt{35}i}{1225}$ 0 0 0 0 0 0 0 $\frac{4\sqrt{105}i}{3675}$ 0 0 0
680	$\mathbb{G}_{4,4}^{(1,1;a)}$	0 0 0 0 0 $-\frac{4\sqrt{770}i}{1617}$ 0 0 0 0 0 0 $\frac{2\sqrt{1155}i}{8085}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{55}i}{1155}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{\sqrt{770}i}{1617}$ 0 0 0 0 0 0 $\frac{8\sqrt{77}i}{17787}$ 0 0
		0 0 0 0 0 $-\frac{\sqrt{770}i}{1617}$ 0 0 0 0 0 0 $\frac{16\sqrt{1155}i}{88935}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{330}i}{12705}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
681	$\mathbb{G}_{4,3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{10\sqrt{77}i}{1617} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}i}{2695} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{1155}i}{1617} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}i}{8085} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{110}i}{1155} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2310}i}{17787} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}i}{12705} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{1155}i}{88935} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{165}i}{4235} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
682	$\mathbb{G}_{4,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{20\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{33}i}{539} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{66}i}{1617} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{165}i}{8085} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{330}i}{1617} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}i}{735} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{1155}i}{8085} \\ 0 & 0 & -\frac{\sqrt{55}i}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{165}i}{17787} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{33}i}{17787} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & -\frac{34\sqrt{110}i}{88935} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}i}{539} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{330}i}{29645} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{1155}i}{29645} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix											
683	$\mathbb{G}_{4,1}^{(1,1;a)}$	0	0	$\frac{10\sqrt{22}i}{1617}$	0	0	0	0	0	$-\frac{2\sqrt{66}i}{1617}$	0	0	0
		0	0	0	$-\frac{10\sqrt{66}i}{1617}$	0	0	0	0	0	$\frac{\sqrt{22}i}{1617}$	0	0
		0	0	0	0	$\frac{10\sqrt{33}i}{1617}$	0	0	0	0	0	$\frac{4\sqrt{330}i}{8085}$	0
		0	0	0	0	0	$-\frac{2\sqrt{55}i}{1617}$	0	0	0	0	0	$-\frac{\sqrt{330}i}{2695}$
		0	$\frac{2\sqrt{55}i}{1617}$	0	0	0	0	0	$-\frac{20\sqrt{22}i}{17787}$	0	0	0	0
		0	0	$-\frac{5\sqrt{22}i}{1617}$	0	0	0	0	0	$\frac{4\sqrt{66}i}{17787}$	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{33}i}{2541}$	0	0
		0	0	0	0	$\frac{5\sqrt{22}i}{1617}$	0	0	0	0	0	$\frac{2\sqrt{55}i}{88935}$	0
		0	0	0	0	0	$-\frac{2\sqrt{55}i}{1617}$	0	0	0	0	0	$-\frac{26\sqrt{330}i}{88935}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{462}i}{17787}$
684	$\mathbb{G}_{4,0}^{(1,1;a)}$	0	$-\frac{4\sqrt{55}i}{1617}$	0	0	0	0	0	0	$\frac{\sqrt{22}i}{539}$	0	0	0
		0	0	$\frac{4\sqrt{330}i}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{110}i}{1617}$	0	0
		0	0	0	$-\frac{4\sqrt{330}i}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{110}i}{1617}$	0
		0	0	0	0	$\frac{4\sqrt{55}i}{1617}$	0	0	0	0	0	0	$\frac{\sqrt{22}i}{539}$
		$-\frac{\sqrt{55}i}{1617}$	0	0	0	0	0	0	$\frac{4\sqrt{330}i}{17787}$	0	0	0	0
		0	$\frac{\sqrt{55}i}{539}$	0	0	0	0	0	0	$-\frac{16\sqrt{22}i}{17787}$	0	0	0
		0	0	$-\frac{2\sqrt{55}i}{1617}$	0	0	0	0	0	0	$-\frac{4\sqrt{165}i}{17787}$	0	0
		0	0	0	$-\frac{2\sqrt{55}i}{1617}$	0	0	0	0	0	0	$\frac{4\sqrt{165}i}{17787}$	0
		0	0	0	0	$\frac{\sqrt{55}i}{539}$	0	0	0	0	0	0	$\frac{16\sqrt{22}i}{17787}$
		0	0	0	0	0	$-\frac{\sqrt{55}i}{1617}$	0	0	0	0	0	$-\frac{4\sqrt{330}i}{17787}$

continued ...

Table 9

No.	multipole	matrix
685	$\mathbb{G}_{4,-1}^{(1,1;a)}$	$\begin{array}{ccccccccccccc} \frac{2\sqrt{55}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{330}i}{2695} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{33}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{330}i}{8085} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{10\sqrt{66}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{22}i}{1617} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{22}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{66}i}{1617} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{462}i}{17787} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{55}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{26\sqrt{330}i}{88935} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{22}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{55}i}{88935} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{33}i}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{22}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{66}i}{17787} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{55}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{22}i}{17787} & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{1155}i}{8085} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{330}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}i}{735} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{66}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{165}i}{8085} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{20\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{33}i}{539} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{1155}i}{29645} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{55}i}{539} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{330}i}{29645} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{34\sqrt{110}i}{88935} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{11}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{33}i}{17787} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{55}i}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{165}i}{17787} & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
687	$\mathbb{G}_{4,-3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{110}i}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{1155}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}i}{8085} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{77}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}i}{2695} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{165}i}{4235} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{1155}i}{88935} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{770}i}{12705} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2310}i}{17787} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{55}i}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{1155}i}{8085} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{330}i}{12705} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{1155}i}{88935} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{770}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{77}i}{17787} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
689	$\mathbb{T}_{1,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{7} \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{2i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{7} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{7} & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
693	$\mathbb{T}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{3\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{70} \\ 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{35} \end{pmatrix}$
694	$\mathbb{T}_{3,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{9\sqrt{6}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{2}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3i}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{70} & 0 \\ 0 & -\frac{2\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{3}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{70} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{70} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{70} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
695	$\mathbb{T}_{3,0}^{(a)}$	$\begin{pmatrix} 0 & -\frac{9i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{70} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{9i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{70} & 0 & 0 \\ \frac{i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{35} & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{3\sqrt{15}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3i}{50} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{2}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{9\sqrt{6}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{35} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
697	$\mathbb{T}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{10}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{70} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{35} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{3\sqrt{3}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{9\sqrt{5}i}{350} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{70} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
699	$\mathbb{T}_{5,5}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{30}i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{10\sqrt{7}i}{539}$ 0 0 0 0 0 0 0 $-\frac{5\sqrt{42}i}{1617}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{30}i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
700	$\mathbb{T}_{5,4}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{231}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2i}{77}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{5\sqrt{14}i}{539}$ 0 0 0 0 0 0 $\frac{2\sqrt{35}i}{539}$ 0 0
		0 0 0 0 0 0 $\frac{5\sqrt{14}i}{539}$ 0 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{1617}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{6}i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
701	$\mathbb{T}_{5,3}^{(a)}$	0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{14}i}{231}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{14}i}{231}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{2}i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{10\sqrt{14}i}{1617}$ 0 0 0 0 0 $-\frac{5\sqrt{42}i}{1617}$ 0 0 0
		0 0 0 0 $-\frac{10\sqrt{35}i}{1617}$ 0 0 0 0 0 0 $\frac{\sqrt{14}i}{539}$ 0 0
		0 0 0 0 0 $\frac{10\sqrt{14}i}{1617}$ 0 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{539}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{3}i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
702	$\mathbb{T}_{5,2}^{(a)}$	0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{35}i}{231}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{7}i}{77}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{21}i}{231}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{i}{231}$
		0 0 $-\frac{5\sqrt{21}i}{1617}$ 0 0 0 0 0 $\frac{10\sqrt{7}i}{1617}$ 0 0 0 0
		0 0 0 $\frac{5\sqrt{105}i}{1617}$ 0 0 0 0 0 $-\frac{4\sqrt{35}i}{1617}$ 0 0 0
		0 0 0 0 $-\frac{5\sqrt{105}i}{1617}$ 0 0 0 0 0 0 $-\frac{2\sqrt{42}i}{1617}$ 0 0
		0 0 0 0 0 $\frac{5\sqrt{21}i}{1617}$ 0 0 0 0 0 0 $\frac{8\sqrt{14}i}{1617}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{2i}{231}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
703	$\mathbb{T}_{5,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{231} & 0 \\ 0 & \frac{5\sqrt{6}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{15}i}{1617} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{15}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{5}i}{1617} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{30}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{1617} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{15}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{147} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{23i}{1617} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{35}i}{1617} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}i}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}i}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{231} & 0 & 0 \\ -\frac{5i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{1617} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{25i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{539} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{50i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}i}{1617} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{50i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}i}{1617} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{25i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}i}{539} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}i}{1617} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																						
705	$\mathbb{T}_{5,-1}^{(a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2i}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{15}i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{5}i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{35}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{6}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{23i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{10\sqrt{15}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{6}i}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{10\sqrt{30}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{10}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{15}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{13\sqrt{5}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{15}i}{1617}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	$-\frac{2i}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2i}{77}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{15}i}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{5}i}{231}$	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{35}i}{1617}$	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{6}i}{1617}$	0	0	0	0	0	0	$\frac{23i}{1617}$	0	0	0	0	0	0	0	0	$\frac{10\sqrt{15}i}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{6}i}{147}$	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{30}i}{1617}$	0	0	0	0	0	0	$-\frac{\sqrt{10}i}{1617}$	0	0	0	0	0	0	0	0	$\frac{10\sqrt{15}i}{1617}$	0	0	0	0	0	0	$\frac{13\sqrt{5}i}{1617}$	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{6}i}{1617}$	0	0	0	0	0	0	$-\frac{5\sqrt{15}i}{1617}$	0	0	0
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0	0	$-\frac{5\sqrt{105}i}{1617}$	0	0	0	0	0	0	$-\frac{4\sqrt{35}i}{1617}$	0	0	0	0	0																																																																																																																																										
0	0	0	$\frac{5\sqrt{21}i}{1617}$	0	0	0	0	0	0	$\frac{10\sqrt{7}i}{1617}$	0	0	0	0																																																																																																																																										
<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{21}i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{7}i}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{35}i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2i}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{21}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{14}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{5\sqrt{105}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{42}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{5\sqrt{105}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{35}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{21}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{7}i}{1617}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$\frac{i}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{21}i}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{7}i}{77}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{35}i}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2i}{231}$	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{21}i}{1617}$	0	0	0	0	0	0	$\frac{8\sqrt{14}i}{1617}$	0	0	0	0	0	0	0	0	$\frac{5\sqrt{105}i}{1617}$	0	0	0	0	0	0	$-\frac{2\sqrt{42}i}{1617}$	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{105}i}{1617}$	0	0	0	0	0	0	$-\frac{4\sqrt{35}i}{1617}$	0	0	0	0	0	0	0	0	$\frac{5\sqrt{21}i}{1617}$	0	0	0	0	0	0	$\frac{10\sqrt{7}i}{1617}$	0	0	0	0		
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0	0	0	0	0	0	0	$-\frac{\sqrt{21}i}{231}$	0	0	0	0	0	0	0																																																																																																																																										
0	0	0	0	0	0	0	0	$\frac{\sqrt{7}i}{77}$	0	0	0	0	0	0																																																																																																																																										
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0	0	0	0	0	0	$-\frac{2i}{231}$	0	0	0	0	0	0	0	0																																																																																																																																										
$-\frac{5\sqrt{21}i}{1617}$	0	0	0	0	0	0	$\frac{8\sqrt{14}i}{1617}$	0	0	0	0	0	0	0																																																																																																																																										
0	$\frac{5\sqrt{105}i}{1617}$	0	0	0	0	0	0	$-\frac{2\sqrt{42}i}{1617}$	0	0	0	0	0	0																																																																																																																																										
0	0	$-\frac{5\sqrt{105}i}{1617}$	0	0	0	0	0	0	$-\frac{4\sqrt{35}i}{1617}$	0	0	0	0	0																																																																																																																																										
0	0	0	$\frac{5\sqrt{21}i}{1617}$	0	0	0	0	0	0	$\frac{10\sqrt{7}i}{1617}$	0	0	0	0																																																																																																																																										

continued ...

Table 9

No.	multipole	matrix
707	$T_{5,-3}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{2\sqrt{2}i}{231}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{2\sqrt{14}i}{231}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{2\sqrt{14}i}{231}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{2\sqrt{3}i}{231}$ 0 0 0 0 0 0
		$-\frac{10\sqrt{14}i}{1617}$ 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{539}$ 0 0 0 0 0 0
		0 $\frac{10\sqrt{35}i}{1617}$ 0 0 0 0 0 0 $\frac{\sqrt{14}i}{539}$ 0 0 0 0 0 0
		0 0 $-\frac{10\sqrt{14}i}{1617}$ 0 0 0 0 0 0 0 $-\frac{5\sqrt{42}i}{1617}$ 0 0 0 0 0
708	$T_{5,-4}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{2i}{77}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{2\sqrt{21}i}{231}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{2\sqrt{6}i}{231}$ 0 0 0 0 0 0
		$-\frac{5\sqrt{14}i}{539}$ 0 0 0 0 0 0 $\frac{2\sqrt{21}i}{1617}$ 0 0 0 0 0 0
		0 $\frac{5\sqrt{14}i}{539}$ 0 0 0 0 0 0 0 $\frac{2\sqrt{35}i}{539}$ 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
709	$\mathbb{T}_{5,-5}^{(a)}$	$\begin{array}{cccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{7}i}{539} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}i}{1617} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array}$
		$\begin{array}{cccccccccccccc} 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
711	$\mathbb{T}_{3,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}i}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}i}{35} \\ 0 & 0 & \frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{12\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{30}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{7} & 0 \\ 0 & -\frac{12i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4i}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{12i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{105} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
713	$\mathbb{T}_{3,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{8\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{7} & 0 & 0 & 0 \\ \frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{15}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}i}{35} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{4i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{15}i}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{30}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{12\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{210}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{12i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{24\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{12i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{10}i}{35} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
715	$\mathbb{T}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{105} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{35} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
717	$\mathbb{T}_{5,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}i}{75} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{35}i}{525} & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}i}{525} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}i}{75} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
718	$\mathbb{T}_{5,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}i}{375} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{125} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{7}i}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}i}{525} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}i}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{30}i}{375} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
719	$\mathbb{T}_{5,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}i}{375} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}i}{375} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{375} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{70}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{7}i}{315} & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{70}i}{875} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{70}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}i}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{375} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{75} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}i}{125} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}i}{375} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{375} & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{105}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{35}i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{21}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{32\sqrt{7}i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{210}i}{2625} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{64\sqrt{70}i}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{5}i}{375} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
721	$\mathbb{T}_{5,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{75} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}i}{75} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{125} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{375} & 0 \\ 0 & \frac{4\sqrt{30}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{104i}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{6}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{2}i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{88\sqrt{30}i}{2625} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{184\sqrt{5}i}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{7}i}{525} \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{75} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{75} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{75} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{75} & 0 \\ -\frac{4\sqrt{5}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{525} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}i}{175} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}i}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{15}i}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{24\sqrt{2}i}{175} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}i}{525} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																							
723	$\mathbb{T}_{5,-1}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{5}i}{375}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{5}i}{125}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{3}i}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4i}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{7}i}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td></td><td>$-\frac{4\sqrt{30}i}{1575}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{184\sqrt{5}i}{2625}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{8\sqrt{3}i}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{88\sqrt{30}i}{2625}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{8\sqrt{6}i}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{2}i}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{8\sqrt{3}i}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{104i}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}i}{1575}$</td><td>$0$</td><td>$0$</td><td>$0$</td><td>$0$</td><td>$0$</td><td>$\frac{8\sqrt{3}i}{105}$</td><td>$0$</td><td>$0$</td><td>$0$</td></tr> </table>	0	0	0	0	0	0	0	$-\frac{4\sqrt{5}i}{375}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{5}i}{125}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{3}i}{75}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4i}{75}$	0	0	0	0	0	0	0	0	0	0	$\frac{8\sqrt{7}i}{525}$	0	0	0	0	0	0	0	0		$-\frac{4\sqrt{30}i}{1575}$	0	0	0	0	0	$-\frac{184\sqrt{5}i}{2625}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{3}i}{315}$	0	0	0	0	0	0	$\frac{88\sqrt{30}i}{2625}$	0	0	0	0	0	0	0	$-\frac{8\sqrt{6}i}{315}$	0	0	0	0	0	0	0	$\frac{8\sqrt{2}i}{525}$	0	0	0	0	0	0	$\frac{8\sqrt{3}i}{315}$	0	0	0	0	0	0	0	0	$-\frac{104i}{525}$	0	0	0	0		0	0	0	0	$-\frac{4\sqrt{30}i}{1575}$	0	0	0	0	0	$\frac{8\sqrt{3}i}{105}$	0	0	0	
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0	$\frac{4\sqrt{21}i}{315}$	0	0	0	0	0	0	$\frac{16\sqrt{210}i}{2625}$	0	0	0	0	0	0																																																																																																																																											
0	$-\frac{4\sqrt{21}i}{315}$	0	0	0	0	0	0	0	$\frac{32\sqrt{7}i}{525}$	0	0	0	0	0																																																																																																																																											
0	$\frac{4\sqrt{105}i}{1575}$	0	0	0	0	0	0	0	0	$-\frac{16\sqrt{35}i}{525}$	0	0	0	0																																																																																																																																											

continued ...

Table 9

No.	multipole	matrix
725	$\mathbb{T}_{5,-3}^{(1,-1;a)}$	$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}i}{375} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}i}{375} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}i}{375} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}i}{375} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{70}i}{1575} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}i}{875} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{7}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{70}i}{875} & 0 & 0 & 0 & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{125} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}i}{375} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{30}i}{375} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{70}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{105}i}{2625} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{70}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{7}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
727	$\mathbb{T}_{5,-5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{75} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{35}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{210}i}{525} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{2}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{10} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{14} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{18i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{12\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{14} & 0 \end{pmatrix}$

continued ...

Table 9

		No. multipole	matrix													
729	$\mathbb{T}_{1,0}^{(1,0;a)}$	0	$\frac{\sqrt{2}i}{5}$	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	$\frac{\sqrt{3}i}{5}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$\frac{\sqrt{3}i}{5}$	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	$\frac{\sqrt{2}i}{5}$	0	0	0	0	0	0	0	0	0	0
		$-\frac{3\sqrt{2}i}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{3}i}{7}$	0	0	0	0	0	0	0
		0	$-\frac{9\sqrt{2}i}{35}$	0	0	0	0	0	$-\frac{\sqrt{5}i}{7}$	0	0	0	0	0	0	0
		0	0	$-\frac{3\sqrt{2}i}{35}$	0	0	0	0	0	$-\frac{\sqrt{6}i}{7}$	0	0	0	0	0	0
		0	0	0	$\frac{3\sqrt{2}i}{35}$	0	0	0	0	0	$-\frac{\sqrt{6}i}{7}$	0	0	0	0	0
		0	0	0	0	$\frac{9\sqrt{2}i}{35}$	0	0	0	0	0	$-\frac{\sqrt{5}i}{7}$	0	0	0	0
		0	0	0	0	0	$\frac{3\sqrt{2}i}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{3}i}{7}$	0	0
730	$\mathbb{T}_{1,-1}^{(1,0;a)}$	$-\frac{\sqrt{5}i}{5}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	$-\frac{\sqrt{3}i}{5}$	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	$-\frac{\sqrt{6}i}{10}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$-\frac{\sqrt{2}i}{10}$	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{\sqrt{42}i}{14}$	0	0	0	0	0	0	0	0
		$-\frac{6\sqrt{5}i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{30}i}{14}$	0	0	0	0	0	0	0
		0	$-\frac{12\sqrt{2}i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{5}i}{7}$	0	0	0	0	0	0
		0	0	$-\frac{18i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{3}i}{7}$	0	0	0	0	0
		0	0	0	$-\frac{12\sqrt{2}i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{6}i}{14}$	0	0	0	0
		0	0	0	0	$-\frac{6\sqrt{5}i}{35}$	0	0	0	0	0	0	$\frac{\sqrt{2}i}{14}$	0	0	0

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
733	$\mathbb{T}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & \frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}i}{210} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{30} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{21} & 0 \\ 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{126} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{126} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{126} \end{pmatrix}$
		$\begin{pmatrix} 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 \\ \frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{21} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
735	$\mathbb{T}_{3,-1}^{(1,0;a)}$	$\begin{pmatrix} \frac{\sqrt{5}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}i}{30} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}i}{210} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}i}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{126} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{63} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{21} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{30}i}{210} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{126} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{63} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{63} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
739	$\mathbb{T}_{5,4}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{70}i}{55}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{30}i}{55}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{2\sqrt{105}i}{77}$ 0 0 0 0 0 0 $-\frac{\sqrt{42}i}{231}$ 0 0
		0 0 0 0 0 $\frac{2\sqrt{105}i}{77}$ 0 0 0 0 0 0 $-\frac{\sqrt{70}i}{1155}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{5}i}{165}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0
740	$\mathbb{T}_{5,3}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{105}i}{165}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{105}i}{165}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{15}i}{165}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{4\sqrt{105}i}{231}$ 0 0 0 0 0 $\frac{\sqrt{35}i}{231}$ 0 0 0
		0 0 0 0 $-\frac{10\sqrt{42}i}{231}$ 0 0 0 0 0 $-\frac{\sqrt{105}i}{1155}$ 0 0
		0 0 0 0 0 $\frac{4\sqrt{105}i}{231}$ 0 0 0 0 0 0 $-\frac{\sqrt{70}i}{385}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{10}i}{165}$
		0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
741	$\mathbb{T}_{5,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{55} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{55} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{165} \\ 0 & 0 & -\frac{\sqrt{70}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{693} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{14}i}{77} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{693} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{1155} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{3465} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{495} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{11} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{55} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{165} & 0 \\ 0 & \frac{2\sqrt{5}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}i}{462} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{2}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{13\sqrt{6}i}{1386} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{20i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{693} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{2}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{23\sqrt{30}i}{6930} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{1386} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
743	$\mathbb{T}_{5,0}^{(1,0;a)}$	0 0 0 0 0 0 0 0 $-\frac{2\sqrt{3}i}{33}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{15}i}{33}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{15}i}{33}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{3}i}{33}$ 0 0 0
		$-\frac{\sqrt{30}i}{231}$ 0 0 0 0 0 0 0 $-\frac{\sqrt{5}i}{231}$ 0 0 0 0 0 0
		0 $\frac{5\sqrt{30}i}{231}$ 0 0 0 0 0 0 $\frac{\sqrt{3}i}{77}$ 0 0 0 0 0 0
		0 0 $-\frac{10\sqrt{30}i}{231}$ 0 0 0 0 0 0 $-\frac{\sqrt{10}i}{231}$ 0 0 0 0 0
		0 0 0 $\frac{10\sqrt{30}i}{231}$ 0 0 0 0 0 0 $-\frac{\sqrt{10}i}{231}$ 0 0 0 0
		0 0 0 0 $-\frac{5\sqrt{30}i}{231}$ 0 0 0 0 0 0 $\frac{\sqrt{3}i}{77}$ 0 0 0
		0 0 0 0 0 $\frac{\sqrt{30}i}{231}$ 0 0 0 0 0 0 $-\frac{\sqrt{5}i}{231}$ 0
744	$\mathbb{T}_{5,-1}^{(1,0;a)}$	0 0 0 0 0 0 0 $\frac{2\sqrt{30}i}{165}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{30}i}{55}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{2}i}{11}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{2\sqrt{6}i}{33}$ 0 0 0
		0 0 0 0 0 0 $\frac{\sqrt{42}i}{1386}$ 0 0 0 0 0 0 0
		$-\frac{2\sqrt{5}i}{77}$ 0 0 0 0 0 0 $-\frac{23\sqrt{30}i}{6930}$ 0 0 0 0 0 0
		0 $\frac{10\sqrt{2}i}{77}$ 0 0 0 0 0 0 $\frac{\sqrt{5}i}{105}$ 0 0 0 0 0 0
		0 0 $-\frac{20i}{77}$ 0 0 0 0 0 0 0 $\frac{\sqrt{3}i}{693}$ 0 0 0 0
		0 0 0 $\frac{10\sqrt{2}i}{77}$ 0 0 0 0 0 0 0 $-\frac{13\sqrt{6}i}{1386}$ 0 0 0
		0 0 0 0 $-\frac{2\sqrt{5}i}{77}$ 0 0 0 0 0 0 0 $\frac{5\sqrt{2}i}{462}$ 0 0

continued ...

Table 9

No.	multipole	matrix
745	$\mathbb{T}_{5,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{55} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{495} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{70}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{3465} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{14}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{1155} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{14}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}i}{693} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{70}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{693} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}i}{165} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{105}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{385} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{42}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{1155} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{105}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{231} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
747	$\mathbb{T}_{5,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{105}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{105}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{210}i}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{35}i}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
749	$\mathbb{T}_{1,1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{2\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{30}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{32\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{48\sqrt{5}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{32\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{16i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{35} \end{pmatrix}$
		$\begin{pmatrix} 0 & -\frac{4\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}i}{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{8\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{24\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}i}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{24\sqrt{10}i}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{35} & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
753	$\mathbb{T}_{3,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2i}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{105} \\ 0 & 0 & \frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{105} & 0 \\ 0 & -\frac{8\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{105} & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16\sqrt{3}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{105} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
755	$\mathbb{T}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} 0 & \frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{105} & 0 & 0 \\ \frac{4i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{105} & 0 \end{pmatrix}$
		$\begin{pmatrix} -\frac{\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{i}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{6}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{6}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{2}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}i}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}i}{105} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
757	$\mathbb{T}_{3,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{15}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}i}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4i}{105} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}i}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{5}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}i}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}i}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{2}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16\sqrt{5}i}{315} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{2}i}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{105} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
759	$M_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{16\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{32\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{35}}{35} \\ 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{32}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{35}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{24\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{35} & 0 \\ 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{44}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{5} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{7} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
761	$\mathbb{M}_{2,0}^{(a)}$	$\begin{array}{ccccccccccccc} 0 & \frac{48}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{48}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{35} & 0 & 0 \\ -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{16}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{10}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{7} & 0 \end{array}$
		$\begin{array}{ccccccccccccc} -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{24\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{44}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{7} & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
763	$\mathbb{M}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{35}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{32\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{35}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{32}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{35} & 0 & 0 & 0 \end{pmatrix}$
764	$\mathbb{M}_{4,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{35}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{21}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{15} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
765	$M_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{14}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{42}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{14}}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{5} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
766	$M_{4,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{35} \\ 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{34\sqrt{2}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
767	$M_{4,1}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{35} & 0 \\ 0 & -\frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{26\sqrt{6}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{105} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & -\frac{4}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 \\ \frac{4}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{10}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{10}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{21} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{21} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
769	$\mathbb{M}_{4,-1}^{(a)}$	$\begin{pmatrix} \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{26\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{21} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{22}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{30}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{34\sqrt{2}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{21} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
771	$\mathbb{M}_{4,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{21}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{14}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{35}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{14}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{5} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{21}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{21}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
773	$\mathbb{M}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{35} \\ 0 & 0 & \frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{6\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{35} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & \frac{9\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} \\ 0 & -\frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{14} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{6}}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{5} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{70} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{14} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
775	$\mathbb{M}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{3\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{3}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{35} & 0 & 0 & 0 \\ \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{7} & 0 \end{pmatrix}$
		$\begin{pmatrix} \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{9\sqrt{2}}{70} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{70} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{5} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{6}}{70} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{14} & 0 & 0 \end{pmatrix}$

continued ...

Table 9

continued ..

Table 9

No.	multipole	matrix
779	$\mathbb{M}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{6}}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{6} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{42} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
780	$\mathbb{M}_{4,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{147} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{7}}{147} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} \\ 0 & 0 & -\frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{147} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{14}}{294} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{42}}{98} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
781	$\mathbb{M}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{70}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{210}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{147} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{49} & 0 \\ 0 & \frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{70}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{70}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{294} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{42}}{294} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{42} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & \frac{\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{49} & 0 & 0 \\ -\frac{2\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}}{147} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{21}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{21}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{147} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{147} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
783	$\mathbb{M}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{\sqrt{7}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{49} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{105}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{147} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{210}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{70}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{13\sqrt{42}}{294} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{70}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{294} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{42} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{70}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{70}}{147} & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{42}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{7}}{147} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{210}}{294} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{17\sqrt{14}}{294} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{35}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{147} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
785	$\mathbb{M}_{4,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{5}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
789	$\mathbb{M}_{6,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{770}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{55}}{363} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
790	$\mathbb{M}_{6,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{231}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{77}}{121} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{462}}{363} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{66}}{363} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
791	$\mathbb{M}_{6,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}}{1089} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{1155}}{1089} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{154}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{462}}{1089} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{33}}{1089} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{154}}{726} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{462}}{2178} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{231}}{1089} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{385}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2310}}{2178} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{66}}{2178} & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
793	$\mathbb{M}_{6,0}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{11}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{165}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{22}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{22}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{165}}{363} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{11}}{363} & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{66}}{2178} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2310}}{2178} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{385}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{231}}{1089} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{462}}{2178} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{154}}{726} \end{pmatrix}$

continued ...

Table 9

continued ...

Table 9

continued ...

Table 9

No.	multipole	matrix
799	$\mathbb{M}_{6,-6}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
800	$\mathbb{M}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{16\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{35} & 0 & 0 \\ 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{18\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{18\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																												
801	$M_{2,1}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>$\frac{6\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{6}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{6}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{3}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}}{35}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{5}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{30}}{35}$</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{12\sqrt{5}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{12\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{11\sqrt{6}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{3}}{15}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{5}}{35}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{5}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}}{105}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{42}}{21}$</td><td>0</td></tr> </table>	0	0	$\frac{6\sqrt{2}}{35}$	0	0	0	0	0	0	$-\frac{4\sqrt{6}}{35}$	0	0	0	0	0	0	0	$\frac{2\sqrt{6}}{21}$	0	0	0	0	0	0	$-\frac{12\sqrt{2}}{35}$	0	0	0	0	0	0	0	$\frac{4\sqrt{3}}{105}$	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{35}$	0	0	0	0	0	0	0	$-\frac{4\sqrt{5}}{35}$	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{35}$	0	0	$-\frac{12\sqrt{5}}{35}$	0	0	0	0	0	0	$-\frac{\sqrt{2}}{7}$	0	0	0	0	0	0	0	$-\frac{12\sqrt{2}}{35}$	0	0	0	0	0	0	$-\frac{11\sqrt{6}}{105}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{3}}{15}$	0	0	0	0	0	0	0	0	$\frac{12\sqrt{2}}{35}$	0	0	0	0	0	0	$-\frac{2\sqrt{5}}{35}$	0	0	0	0	0	0	0	$\frac{12\sqrt{5}}{35}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{105}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}}{21}$	0
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0	0	0	0	0	$-\frac{4\sqrt{5}}{35}$	0	0	0	0	0	0	$-\frac{4\sqrt{30}}{35}$	0																																																																																																																																	
0	$-\frac{12\sqrt{5}}{35}$	0	0	0	0	0	0	$-\frac{\sqrt{2}}{7}$	0	0	0	0	0																																																																																																																																	
0	0	$-\frac{12\sqrt{2}}{35}$	0	0	0	0	0	0	$-\frac{11\sqrt{6}}{105}$	0	0	0	0																																																																																																																																	
0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{3}}{15}$	0	0	0	0																																																																																																																																	
0	0	0	0	$\frac{12\sqrt{2}}{35}$	0	0	0	0	0	0	$-\frac{2\sqrt{5}}{35}$	0	0																																																																																																																																	
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0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}}{21}$	0																																																																																																																																	
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Table 9

No.	multipole	matrix
803	$M_{2,-1}^{(1,0;a)}$	$\begin{array}{ccccccccccccc} \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{35} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{6}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{18\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{18\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
805	$M_{4,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{105}}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{125} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{525} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{375} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
806	$M_{4,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{18\sqrt{70}}{875} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{70}}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{125} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{375} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{125} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
807	$M_{4,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{2}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{18\sqrt{3}}{175} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{875} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & \frac{66\sqrt{5}}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{105}}{875} \\ 0 & 0 & -\frac{12\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{10}}{2625} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{30}}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{875} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{2}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{6}}{175} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{175} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{24\sqrt{30}}{875} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{18\sqrt{30}}{875} \\ 0 & \frac{8\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{105} & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{525} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{75} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{2625} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{30}}{2625} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{525} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																						
809	$M_{4,0}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>$\frac{2\sqrt{5}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{18\sqrt{2}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{10}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{30}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{10}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{5}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{18\sqrt{2}}{175}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{4\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{12\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{2}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{8\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{15}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{15}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{2}}{525}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{30}}{525}$</td><td>0</td><td>0</td></tr> </table>	0	$\frac{2\sqrt{5}}{525}$	0	0	0	0	0	0	$-\frac{18\sqrt{2}}{175}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{525}$	0	0	0	0	0	0	$\frac{6\sqrt{10}}{175}$	0	0	0	0	0	0	0	0	$\frac{2\sqrt{30}}{525}$	0	0	0	0	0	0	$\frac{6\sqrt{10}}{175}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{5}}{525}$	0	0	0	0	0	0	$-\frac{18\sqrt{2}}{175}$	0	0	0	$-\frac{4\sqrt{5}}{175}$	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{525}$	0	0	0	0	0	0	0	0	$\frac{12\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{8\sqrt{2}}{525}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{2\sqrt{15}}{525}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{5}}{175}$	0	0	0	0	0	0	$-\frac{2\sqrt{15}}{525}$	0	0	0	0	0	0	0	0	$\frac{12\sqrt{5}}{175}$	0	0	0	0	0	0	$-\frac{8\sqrt{2}}{525}$	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{5}}{175}$	0	0	0	0	0	$\frac{2\sqrt{30}}{525}$	0	0
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810	$M_{4,-1}^{(1,0;a)}$	<table border="1"> <tr><td>$-\frac{\sqrt{5}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{30}}{875}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{3}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{24\sqrt{30}}{875}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{\sqrt{6}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{2}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{2}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{12\sqrt{6}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{42}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{8\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{13\sqrt{30}}{2625}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{4\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}}{2625}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{3}}{75}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{2}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{6}}{525}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	$-\frac{\sqrt{5}}{525}$	0	0	0	0	0	0	$\frac{18\sqrt{30}}{875}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}}{105}$	0	0	0	0	0	0	$-\frac{24\sqrt{30}}{875}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{6}}{105}$	0	0	0	0	0	0	$-\frac{6\sqrt{2}}{175}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}}{105}$	0	0	0	0	0	0	$\frac{12\sqrt{6}}{175}$	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}}{525}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{5}}{175}$	0	0	0	0	0	0	$-\frac{13\sqrt{30}}{2625}$	0	0	0	0	0	0	0	0	$\frac{4\sqrt{2}}{35}$	0	0	0	0	0	0	$\frac{\sqrt{5}}{2625}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}}{75}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{2}}{35}$	0	0	0	0	0	0	$\frac{2\sqrt{6}}{525}$	0	0	0	0															
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continued ...

Table 9

No.	multipole	matrix
811	$M_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{105}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{30}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{66\sqrt{5}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{15}}{875} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{18\sqrt{3}}{175} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{12\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{30}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{17\sqrt{10}}{2625} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{525} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{5}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{525} & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{10}}{125} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{105}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{70}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{7}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{18\sqrt{70}}{875} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{125} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{2625} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{375} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{525} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
813	$M_{4,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{5}}{125} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{70}}{525} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{105}}{875} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{105}}{2625} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{70}}{175} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{525} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix
815	$M_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{16\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{32\sqrt{42}}{735} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{245} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{210}}{735} & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{35}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{35} \\ 0 & 0 & 0 & \frac{6\sqrt{35}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{18\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & -\frac{32\sqrt{21}}{2205} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{18\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{70}}{735} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{35}}{245} & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{210}}{2205} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{315} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & -\frac{24\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{245} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{7}}{245} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{42}}{735} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{245} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{70}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{245} \\ 0 & -\frac{6\sqrt{70}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{147} & 0 & 0 & 0 \\ 0 & 0 & -\frac{12\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{44\sqrt{21}}{2205} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{315} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{12\sqrt{7}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}}{735} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{70}}{245} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{2205} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{63} \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix																																																																																																																																																						
817	$M_{2,0}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>$\frac{16\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{210}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{8\sqrt{14}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{42}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{14}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{42}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{16\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{210}}{245}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{2\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{14}}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{2\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{210}}{735}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{8\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{7}}{735}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{7}}{735}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{210}}{735}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{14}}{147}$</td><td>0</td><td>0</td></tr> </table>	0	$\frac{16\sqrt{21}}{245}$	0	0	0	0	0	0	$-\frac{\sqrt{210}}{245}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{14}}{245}$	0	0	0	0	0	0	$-\frac{3\sqrt{42}}{245}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{14}}{245}$	0	0	0	0	0	0	$-\frac{3\sqrt{42}}{245}$	0	0	0	0	0	0	0	0	$-\frac{16\sqrt{21}}{245}$	0	0	0	0	0	0	$-\frac{\sqrt{210}}{245}$	0	0	0	$\frac{2\sqrt{21}}{49}$	0	0	0	0	0	0	$-\frac{4\sqrt{14}}{147}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{21}}{245}$	0	0	0	0	0	0	$-\frac{4\sqrt{210}}{735}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{21}}{245}$	0	0	0	0	0	0	$-\frac{8\sqrt{7}}{735}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{21}}{245}$	0	0	0	0	0	0	$\frac{8\sqrt{7}}{735}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{21}}{245}$	0	0	0	0	0	0	$\frac{4\sqrt{210}}{735}$	0	0	0	0	0	0	0	0	$\frac{2\sqrt{21}}{49}$	0	0	0	0	0	0	$\frac{4\sqrt{14}}{147}$	0	0
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<table border="1"> <tr><td>$-\frac{8\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{105}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{8\sqrt{42}}{735}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{105}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{8\sqrt{21}}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{24\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{21}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{6\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{105}}{2205}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{12\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{70}}{735}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{42}}{315}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{7}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{44\sqrt{21}}{2205}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{70}}{245}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{7}}{147}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	$-\frac{8\sqrt{70}}{245}$	0	0	0	0	0	0	$\frac{2\sqrt{105}}{245}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{42}}{735}$	0	0	0	0	0	0	$\frac{2\sqrt{105}}{245}$	0	0	0	0	0	0	0	0	$\frac{8\sqrt{21}}{147}$	0	0	0	0	0	0	$\frac{6\sqrt{7}}{245}$	0	0	0	0	0	0	0	0	$\frac{24\sqrt{7}}{245}$	0	0	0	0	0	0	$\frac{2\sqrt{21}}{245}$	0	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{3}}{63}$	0	0	0	0	0	0	0	0	$\frac{6\sqrt{70}}{245}$	0	0	0	0	0	0	$\frac{4\sqrt{105}}{2205}$	0	0	0	0	0	0	0	0	$\frac{12\sqrt{7}}{245}$	0	0	0	0	0	0	$-\frac{4\sqrt{70}}{735}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{42}}{315}$	0	0	0	0	0	0	0	0	$-\frac{12\sqrt{7}}{245}$	0	0	0	0	0	0	$-\frac{44\sqrt{21}}{2205}$	0	0	0	0	0	0	0	0	$-\frac{6\sqrt{70}}{245}$	0	0	0	0	0	0	$-\frac{4\sqrt{7}}{147}$	0	0	0		
$-\frac{8\sqrt{70}}{245}$	0	0	0	0	0	0	$\frac{2\sqrt{105}}{245}$	0	0	0	0	0	0	0																																																																																																																																										
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0	0	0	$\frac{24\sqrt{7}}{245}$	0	0	0	0	0	0	$\frac{2\sqrt{21}}{245}$	0	0	0	0																																																																																																																																										
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0	0	0	$-\frac{12\sqrt{7}}{245}$	0	0	0	0	0	0	$-\frac{44\sqrt{21}}{2205}$	0	0	0	0																																																																																																																																										
0	0	0	0	$-\frac{6\sqrt{70}}{245}$	0	0	0	0	0	0	$-\frac{4\sqrt{7}}{147}$	0	0	0																																																																																																																																										

continued ...

Table 9

No.	multipole	matrix
819	$\mathbb{M}_{2,-2}^{(1,1;a)}$	0 0 0 0 0 0 $-\frac{\sqrt{15}}{35}$ 0 0 0 0 0 0 0
		$-\frac{16\sqrt{210}}{735}$ 0 0 0 0 0 0 $-\frac{3\sqrt{35}}{245}$ 0 0 0 0 0 0
		0 $-\frac{32\sqrt{42}}{735}$ 0 0 0 0 0 0 $-\frac{\sqrt{105}}{245}$ 0 0 0 0 0 0
		0 0 $-\frac{16\sqrt{7}}{245}$ 0 0 0 0 0 0 $-\frac{\sqrt{21}}{245}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{8\sqrt{15}}{315}$ 0 0 0 0 0 0 0
		$\frac{6\sqrt{35}}{245}$ 0 0 0 0 0 0 $\frac{16\sqrt{210}}{2205}$ 0 0 0 0 0 0
		0 $\frac{18\sqrt{7}}{245}$ 0 0 0 0 0 0 $\frac{8\sqrt{70}}{735}$ 0 0 0 0 0
		0 0 $\frac{18\sqrt{7}}{245}$ 0 0 0 0 0 0 $\frac{32\sqrt{21}}{2205}$ 0 0 0 0
		0 0 0 $\frac{6\sqrt{35}}{245}$ 0 0 0 0 0 0 0 $\frac{8\sqrt{105}}{2205}$ 0 0 0
820	$\mathbb{M}_{4,4}^{(1,1;a)}$	0 0 0 0 0 $-\frac{4\sqrt{770}}{231}$ 0 0 0 0 0 0 $\frac{2\sqrt{1155}}{1155}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{55}}{165}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{\sqrt{770}}{231}$ 0 0 0 0 0 0 $\frac{8\sqrt{77}}{2541}$ 0 0
		0 0 0 0 0 $-\frac{\sqrt{770}}{231}$ 0 0 0 0 0 0 0 $\frac{16\sqrt{1155}}{12705}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{4\sqrt{330}}{1815}$
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 9

No.	multipole	matrix
821	$M_{4,3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{10\sqrt{77}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}}{385} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{1155}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}}{1155} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{110}}{165} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2310}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}}{1815} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{1155}}{12705} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{165}}{605} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & -\frac{20\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{33}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{66}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{165}}{1155} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{330}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{1155}}{1155} \\ 0 & 0 & -\frac{\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{165}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{33}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{5\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{34\sqrt{110}}{12705} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{330}}{4235} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{1155}}{4235} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 9

No.	multipole	matrix											
823	$\mathbb{M}_{4,1}^{(1,1;a)}$	0	0	$\frac{10\sqrt{22}}{231}$	0	0	0	0	0	$-\frac{2\sqrt{66}}{231}$	0	0	0
		0	0	0	$-\frac{10\sqrt{66}}{231}$	0	0	0	0	0	$\frac{\sqrt{22}}{231}$	0	0
		0	0	0	0	$\frac{10\sqrt{33}}{231}$	0	0	0	0	0	$\frac{4\sqrt{330}}{1155}$	0
		0	0	0	0	0	$-\frac{2\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{\sqrt{330}}{385}$
		0	$\frac{2\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{20\sqrt{22}}{2541}$	0	0	0	0
		0	0	$-\frac{5\sqrt{22}}{231}$	0	0	0	0	0	$\frac{4\sqrt{66}}{2541}$	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{33}}{363}$	0	0
		0	0	0	0	$\frac{5\sqrt{22}}{231}$	0	0	0	0	0	$\frac{2\sqrt{55}}{12705}$	0
		0	0	0	0	0	$-\frac{2\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{26\sqrt{330}}{12705}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{462}}{2541}$
824	$\mathbb{M}_{4,0}^{(1,1;a)}$	0	$-\frac{4\sqrt{55}}{231}$	0	0	0	0	0	0	$\frac{\sqrt{22}}{77}$	0	0	0
		0	0	$\frac{4\sqrt{330}}{231}$	0	0	0	0	0	0	$-\frac{\sqrt{110}}{231}$	0	0
		0	0	0	$-\frac{4\sqrt{330}}{231}$	0	0	0	0	0	0	$-\frac{\sqrt{110}}{231}$	0
		0	0	0	0	$\frac{4\sqrt{55}}{231}$	0	0	0	0	0	0	$\frac{\sqrt{22}}{77}$
		$-\frac{\sqrt{55}}{231}$	0	0	0	0	0	0	$\frac{4\sqrt{330}}{2541}$	0	0	0	0
		0	$\frac{\sqrt{55}}{77}$	0	0	0	0	0	0	$-\frac{16\sqrt{22}}{2541}$	0	0	0
		0	0	$-\frac{2\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{4\sqrt{165}}{2541}$	0	0	0
		0	0	0	$-\frac{2\sqrt{55}}{231}$	0	0	0	0	0	$\frac{4\sqrt{165}}{2541}$	0	0
		0	0	0	0	$\frac{\sqrt{55}}{77}$	0	0	0	0	0	$\frac{16\sqrt{22}}{2541}$	0
		0	0	0	0	0	$-\frac{\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{4\sqrt{330}}{2541}$

continued ...

Table 9

No.	multipole	matrix
825	$M_{4,-1}^{(1,1;a)}$	$\begin{array}{ccccccccccccc} \frac{2\sqrt{55}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{330}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{33}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{330}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{10\sqrt{66}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{22}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{22}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{66}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{462}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{55}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{26\sqrt{330}}{12705} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{22}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{55}}{12705} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{33}}{363} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{5\sqrt{22}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{66}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{55}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{22}}{2541} & 0 & 0 & 0 \end{array}$
		$\begin{array}{ccccccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{1155}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{330}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{55}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{66}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{165}}{1155} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{20\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{33}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{1155}}{4235} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{330}}{4235} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{34\sqrt{110}}{12705} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{33}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{165}}{2541} & 0 & 0 & 0 \end{array}$

continued ...

Table 9

No.	multipole	matrix
827	$M_{4,-3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{110}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{1155}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{770}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{77}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{770}}{385} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{165}}{605} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{1155}}{12705} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{770}}{1815} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2310}}{2541} & 0 & 0 & 0 & 0 \end{pmatrix}$
		$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{55}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{1155}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{330}}{1815} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{1155}}{12705} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{770}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{77}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

bra: $= |\frac{5}{2}, \frac{5}{2}; f\rangle, |\frac{5}{2}, \frac{3}{2}; f\rangle, |\frac{5}{2}, \frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{3}{2}; f\rangle, |\frac{5}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{7}{2}; f\rangle, |\frac{7}{2}, \frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{3}{2}; f\rangle, |\frac{7}{2}, \frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{3}{2}; f\rangle, |\frac{7}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, -\frac{7}{2}; f\rangle$
ket: $= |\frac{5}{2}, \frac{5}{2}; f\rangle, |\frac{5}{2}, \frac{3}{2}; f\rangle, |\frac{5}{2}, \frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{1}{2}; f\rangle, |\frac{5}{2}, -\frac{3}{2}; f\rangle, |\frac{5}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{7}{2}; f\rangle, |\frac{7}{2}, \frac{5}{2}; f\rangle, |\frac{7}{2}, \frac{3}{2}; f\rangle, |\frac{7}{2}, \frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{1}{2}; f\rangle, |\frac{7}{2}, -\frac{3}{2}; f\rangle, |\frac{7}{2}, -\frac{5}{2}; f\rangle, |\frac{7}{2}, -\frac{7}{2}; f\rangle$

Table 10: (f,f) block.

No.	multipole	matrix
829	$\mathbb{Q}_{0,0}^{(a)}$	$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \end{bmatrix}$

continued ...

Table 10

No.	multipole	matrix
830	$\mathbb{Q}_{2,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
831	$\mathbb{Q}_{2,1}^{(a)}$	$\begin{pmatrix} 0 & \frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{21} & 0 \\ -\frac{\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{5}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{11}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
832	$\mathbb{Q}_{2,0}^{(a)}$	$\begin{pmatrix} -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{35} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 \end{pmatrix}$
		$0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{3} \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
833	$\mathbb{Q}_{2,-1}^{(a)}$	0 0 0 0 0 0 $\frac{\sqrt{7}}{21}$ 0 0 0 0 0 0 0 0
		$-\frac{2\sqrt{30}}{35}$ 0 0 0 0 0 0 $\frac{\sqrt{5}}{105}$ 0 0 0 0 0 0 0
		0 $-\frac{4\sqrt{3}}{35}$ 0 0 0 0 0 0 $-\frac{\sqrt{30}}{105}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{2}}{15}$ 0 0 0 0 0
		0 0 0 $\frac{4\sqrt{3}}{35}$ 0 0 0 0 0 0 0 $-\frac{11}{105}$ 0 0 0
		0 0 0 0 $\frac{2\sqrt{30}}{35}$ 0 0 0 0 0 0 0 $-\frac{\sqrt{3}}{21}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{\sqrt{42}}{21}$ 0 0 0 0 0 0 0 0
		$-\frac{\sqrt{3}}{21}$ 0 0 0 0 0 0 $-\frac{4\sqrt{2}}{21}$ 0 0 0 0 0 0 0
		0 $-\frac{11}{105}$ 0 0 0 0 0 0 $-\frac{\sqrt{10}}{21}$ 0 0 0 0 0 0
		0 0 $-\frac{\sqrt{2}}{15}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $-\frac{\sqrt{30}}{105}$ 0 0 0 0 0 0 $\frac{\sqrt{10}}{21}$ 0 0 0
		0 0 0 0 $\frac{\sqrt{5}}{105}$ 0 0 0 0 0 0 $\frac{4\sqrt{2}}{21}$ 0 0
		0 0 0 0 0 $\frac{\sqrt{7}}{21}$ 0 0 0 0 0 0 $\frac{\sqrt{42}}{21}$ 0

continued ...

Table 10

No.	multipole	matrix
834	$\mathbb{Q}_{2,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{6\sqrt{3}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{5}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
835	$\mathbb{Q}_{4,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{35}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{21}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
836	$\mathbb{Q}_{4,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}}{11} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{11} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
837	$\mathbb{Q}_{4,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{3}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{17\sqrt{2}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{77} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{77} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{6}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{17\sqrt{2}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{3}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
		0	$-\frac{2}{21}$	0	0	0	0	0	$-\frac{10\sqrt{10}}{231}$	0	0	0	0	0	0
838	$\mathbb{Q}_{4,1}^{(a)}$	0	0	$\frac{\sqrt{10}}{21}$	0	0	0	0	0	$\frac{2\sqrt{30}}{231}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{\sqrt{15}}{33}$	0	0	0	0
		0	0	0	0	$-\frac{\sqrt{10}}{21}$	0	0	0	0	0	$\frac{1}{231}$	0	0	0
		0	0	0	0	0	$\frac{2}{21}$	0	0	0	0	0	$-\frac{13\sqrt{6}}{231}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{210}}{231}$	0
		$\frac{\sqrt{210}}{231}$	0	0	0	0	0	0	$-\frac{2\sqrt{35}}{77}$	0	0	0	0	0	0
		0	$-\frac{13\sqrt{6}}{231}$	0	0	0	0	0	0	$\frac{2\sqrt{15}}{77}$	0	0	0	0	0
		0	0	$\frac{1}{231}$	0	0	0	0	0	$\frac{6\sqrt{3}}{77}$	0	0	0	0	0
		0	0	0	$\frac{\sqrt{15}}{33}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	$\frac{2\sqrt{30}}{231}$	0	0	0	0	0	$-\frac{6\sqrt{3}}{77}$	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{10}}{231}$	0	0	0	0	0	$-\frac{2\sqrt{15}}{77}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{35}}{77}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
839	$\mathbb{Q}_{4,0}^{(a)}$	$\frac{1}{21} \quad 0 \quad \frac{10\sqrt{6}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad -\frac{1}{7} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{8\sqrt{10}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad \frac{2}{21} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{10\sqrt{3}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad \frac{2}{21} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{10\sqrt{3}}{231} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad -\frac{1}{7} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{8\sqrt{10}}{231} \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{1}{21} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{10\sqrt{6}}{231} \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{1}{11} \quad 0 \quad 0$
		$\frac{10\sqrt{6}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{13}{77} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad -\frac{8\sqrt{10}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{3}{77} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{10\sqrt{3}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{9}{77} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad \frac{10\sqrt{3}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{9}{77} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad \frac{8\sqrt{10}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{3}{77} \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{10\sqrt{6}}{231} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{13}{77} \quad 0 \quad 0$
		$0 \quad 0 \quad \frac{1}{11}$

continued ...

Table 10

No.	multipole	matrix
840	$\mathbb{Q}_{4,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{10}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{10\sqrt{10}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{30}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{3}}{77} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{1}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{3}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{13\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{77} & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
841	$\mathbb{Q}_{4,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{2}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{3}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{20\sqrt{3}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{77} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{77} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{17\sqrt{2}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{6}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
842	$\mathbb{Q}_{4,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{14}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{11} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
843	$\mathbb{Q}_{4,-4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{14}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{11} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
844	$\mathbb{Q}_{6,6}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{22}}{143} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{22}}{143} & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
845	$\mathbb{Q}_{6,5}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{330}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{330}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{33}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
846	$\mathbb{Q}_{6,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{143} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{105}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{30}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{30}}{429} & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{10}}{143} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{105}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{10}}{143} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
847	$\mathbb{Q}_{6,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{143} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{143} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{143} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10}{143} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10}{143} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{3}}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{7}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{21}}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{3}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
848	$\mathbb{Q}_{6,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{14}}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{70}}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{21}}{429} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{7}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{2}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{2}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{5}}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{20\sqrt{7}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{20\sqrt{21}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{70}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{429} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{14}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{5}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
849	$\mathbb{Q}_{6,1}^{(a)}$	0	0	0	0	0	0	0	$\frac{5\sqrt{21}}{429}$	0	0	0	0
		0	0	0	0	0	0	0	$-\frac{25\sqrt{7}}{429}$	0	0	0	0
		0	0	0	0	0	0	0	0	$\frac{25\sqrt{14}}{429}$	0	0	0
		0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{210}}{429}$	0	0
		0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{35}}{429}$	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{5}{429}$
		$-\frac{5}{429}$	0	0	0	0	0	$\frac{5\sqrt{6}}{429}$	0	0	0	0	0
		0	$\frac{5\sqrt{35}}{429}$	0	0	0	0	0	$-\frac{10\sqrt{14}}{429}$	0	0	0	0
		0	0	$-\frac{5\sqrt{210}}{429}$	0	0	0	0	0	$\frac{5\sqrt{70}}{429}$	0	0	0
		0	0	0	$\frac{25\sqrt{14}}{429}$	0	0	0	0	0	0	0	0
		0	0	0	0	$-\frac{25\sqrt{7}}{429}$	0	0	0	0	$-\frac{5\sqrt{70}}{429}$	0	0
		0	0	0	0	0	$\frac{5\sqrt{21}}{429}$	0	0	0	0	$\frac{10\sqrt{14}}{429}$	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{6}}{429}$
		0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
850	$\mathbb{Q}_{6,0}^{(a)}$	0 0 0 0 0 0 0 $-\frac{5\sqrt{6}}{429}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{5\sqrt{10}}{143}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{50\sqrt{3}}{429}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{50\sqrt{3}}{429}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{5\sqrt{10}}{143}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $\frac{5\sqrt{6}}{429}$ 0
		0 0 0 0 0 0 0 $-\frac{5}{429}$ 0 0 0 0 0 0 0
		$-\frac{5\sqrt{6}}{429}$ 0 0 0 0 0 0 $\frac{25}{429}$ 0 0 0 0 0 0 0
		0 $\frac{5\sqrt{10}}{143}$ 0 0 0 0 0 0 $-\frac{15}{143}$ 0 0 0 0 0 0
		0 0 $-\frac{50\sqrt{3}}{429}$ 0 0 0 0 0 0 $\frac{25}{429}$ 0 0 0 0 0
		0 0 0 $\frac{50\sqrt{3}}{429}$ 0 0 0 0 0 0 $\frac{25}{429}$ 0 0 0 0
		0 0 0 0 $-\frac{5\sqrt{10}}{143}$ 0 0 0 0 0 0 $-\frac{15}{143}$ 0 0
		0 0 0 0 0 $\frac{5\sqrt{6}}{429}$ 0 0 0 0 0 0 $\frac{25}{429}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{5}{429}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																																	
851	$\mathbb{Q}_{6,-1}^{(a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{35}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{210}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{25\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{25\sqrt{7}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{21}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{21}}{429}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td> <table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{21}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{25\sqrt{7}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{25\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{210}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{35}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td></tr> </table> </td></tr> </table>	0	0	0	0	0	0	$\frac{5}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{35}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{210}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{25\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{25\sqrt{7}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{21}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{21}}{429}$	0	0	0	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{21}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{25\sqrt{7}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{25\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{210}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{35}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$-\frac{5\sqrt{6}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{21}}{429}$	0	0	0	0	0	0	$\frac{10\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	$\frac{25\sqrt{7}}{429}$	0	0	0	0	0	0	$-\frac{5\sqrt{70}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{25\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{210}}{429}$	0	0	0	0	0	0	$\frac{5\sqrt{70}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{35}}{429}$	0	0	0	0	0	0	$-\frac{10\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	$\frac{5}{429}$	0	0	0	0	0	0	$\frac{5\sqrt{6}}{429}$	0	0	0
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<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{21}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{25\sqrt{7}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{25\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{210}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{70}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{35}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{14}}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{6}}{429}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$-\frac{5\sqrt{6}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{21}}{429}$	0	0	0	0	0	0	$\frac{10\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	$\frac{25\sqrt{7}}{429}$	0	0	0	0	0	0	$-\frac{5\sqrt{70}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{25\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{210}}{429}$	0	0	0	0	0	0	$\frac{5\sqrt{70}}{429}$	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{35}}{429}$	0	0	0	0	0	0	$-\frac{10\sqrt{14}}{429}$	0	0	0	0	0	0	0	0	0	$\frac{5}{429}$	0	0	0	0	0	0	$\frac{5\sqrt{6}}{429}$	0	0	0																																																																																																																			
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Table 10

No.	multipole	matrix
852	$\mathbb{Q}_{6,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{7}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{21}}{429} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{70}}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{14}}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{5}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{14}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{70}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{429} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{20\sqrt{21}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{20\sqrt{7}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{2}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{5}}{429} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
853	$\mathbb{Q}_{6,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{143} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{143} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}}{143} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{3}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{14}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{429} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{42}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{7}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{21}}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10}{143} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{3}}{429} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
854	$\mathbb{Q}_{6,-4}^{(a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{30}}{429}$	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{10\sqrt{105}}{429}$	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{10\sqrt{7}}{143}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{5\sqrt{10}}{143}$	0	0	0	0	0	0
		$-\frac{10\sqrt{7}}{143}$	0	0	0	0	0	$\frac{5\sqrt{42}}{429}$	0	0	0	0	0
		0	$\frac{10\sqrt{105}}{429}$	0	0	0	0	0	$\frac{5\sqrt{42}}{429}$	0	0	0	0
		0	0	$-\frac{10\sqrt{30}}{429}$	0	0	0	0	0	0	$-\frac{5\sqrt{10}}{143}$	0	0

continued ...

Table 10

No.	multipole	matrix
855	$\mathbb{Q}_{6,-5}^{(a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{5\sqrt{330}}{429}$ 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{5\sqrt{462}}{429}$ 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{10\sqrt{33}}{429}$ 0 0 0 0 0 0 0 0 0
		$-\frac{5\sqrt{462}}{429}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $\frac{5\sqrt{330}}{429}$ 0 0 0 0 0 0 0 $\frac{10\sqrt{33}}{429}$ 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
856	$\mathbb{Q}_{6,-6}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{22}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{22}}{143} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
857	$\mathbb{Q}_{2,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{2\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{6\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{5}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{210}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{6\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{5}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{21}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																										
858	$\mathbb{Q}_{2,1}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>$\frac{4\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{15\sqrt{2}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{4\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{11\sqrt{6}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\sqrt{3}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{30}}{14}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{42}}{14}$</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{42}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{7}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{30}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{3}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{3\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\sqrt{3}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{11\sqrt{6}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{15\sqrt{2}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{3}}{7}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{7}}{7}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$\frac{4\sqrt{5}}{7}$	0	0	0	0	0	0	$\frac{15\sqrt{2}}{14}$	0	0	0	0	0	0	0	0	$\frac{4\sqrt{2}}{7}$	0	0	0	0	0	0	$\frac{11\sqrt{6}}{14}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{3}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{2}}{7}$	0	0	0	0	0	0	$\frac{3\sqrt{5}}{7}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{5}}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{30}}{14}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{42}}{14}$	0	0	$-\frac{5\sqrt{42}}{14}$	0	0	0	0	0	$-\frac{6\sqrt{7}}{7}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{30}}{14}$	0	0	0	0	0	$-\frac{8\sqrt{3}}{7}$	0	0	0	0	0	0	0	0	$\frac{3\sqrt{5}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	$\sqrt{3}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{11\sqrt{6}}{14}$	0	0	0	0	0	$\frac{2\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	$\frac{15\sqrt{2}}{14}$	0	0	0	0	0	$\frac{8\sqrt{3}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{6\sqrt{7}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	$\frac{15\sqrt{2}}{14}$	0	0	0	0	0	$\frac{8\sqrt{3}}{7}$	0	0																																																																																																																																																																																															
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0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																															

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Table 10

No.	multipole	matrix
859	$\mathbb{Q}_{2,0}^{(1,-1;a)}$	$\begin{pmatrix} -\frac{10\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{15}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{15}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{3\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{15}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{6} \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
860	$\mathbb{Q}_{2,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\sqrt{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{11\sqrt{6}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15\sqrt{2}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{15\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{11\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{6\sqrt{7}}{7} & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																
861	$\mathbb{Q}_{2,-2}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{210}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{2\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{6\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{6\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{6}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{21}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{\sqrt{30}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{4\sqrt{6}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{6\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{5}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{210}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{21}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{210}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	0	$\frac{4\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{6\sqrt{2}}{7}$	0	0	0	0	0	0	$\frac{6\sqrt{5}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{6\sqrt{2}}{7}$	0	0	0	0	0	0	$\frac{4\sqrt{6}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{30}}{7}$	0	0	0	0	0	0	$\frac{6\sqrt{5}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{6}}{7}$	0	0	0	0	0	0	$\frac{4\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{6\sqrt{5}}{7}$	0	0	0	0	0	0	$\frac{4\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{15}}{7}$	0	0	0	0	0	0	$\frac{6\sqrt{5}}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{210}}{7}$	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0	0	0	0	0
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continued ...

Table 10

No.	multipole	matrix												
862	$\mathbb{Q}_{4,4}^{(1,-1;a)}$	0	0	0	0	$\frac{2\sqrt{2}}{7}$	0	0	0	0	0	$\frac{2\sqrt{5}}{7}$	0	0
		0	0	0	0	0	$\frac{2\sqrt{2}}{7}$	0	0	0	0	0	$\frac{4\sqrt{3}}{7}$	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}}{7}$	
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	$-\frac{\sqrt{42}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{14}}{7}$	0	0
		0	0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0	0
		0	0	0	0	0	$-\frac{2\sqrt{5}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{7}$	
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
863	$\mathbb{Q}_{4,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{21}}{14} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{3\sqrt{21}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																				
864	$\mathbb{Q}_{4,2}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>$\frac{6\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{35}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{105}}{49}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{35}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{17\sqrt{14}}{98}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{6\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{9\sqrt{42}}{98}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{3}}{7}$</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{3\sqrt{3}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{9\sqrt{42}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{14}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{17\sqrt{14}}{98}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{42}}{49}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{105}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{42}}{49}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{21}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{14}}{49}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{30}}{7}$</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	$\frac{6\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{10\sqrt{21}}{49}$	0	0	0	0	0	0	0	$-\frac{2\sqrt{35}}{49}$	0	0	0	0	0	0	$\frac{\sqrt{105}}{49}$	0	0	0	0	0	0	0	$-\frac{2\sqrt{35}}{49}$	0	0	0	0	0	0	$-\frac{17\sqrt{14}}{98}$	0	0	0	0	0	0	0	$\frac{6\sqrt{7}}{49}$	0	0	0	0	0	0	$-\frac{9\sqrt{42}}{98}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{3\sqrt{3}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{3}}{7}$	0	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0	0	0	0	0	0	$\frac{9\sqrt{42}}{98}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0	0	0	0	0	0	0	$\frac{17\sqrt{14}}{98}$	0	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0	0	0	0	0	0	$-\frac{\sqrt{105}}{49}$	0	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0	0	0	0	0	0	$-\frac{10\sqrt{21}}{49}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	$\frac{9\sqrt{42}}{98}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0	0	0	0																																																																																																																																																																																									
0	0	0	$\frac{17\sqrt{14}}{98}$	0	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0	0																																																																																																																																																																																									
0	0	0	0	$-\frac{\sqrt{105}}{49}$	0	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0																																																																																																																																																																																									
0	0	0	0	0	$-\frac{10\sqrt{21}}{49}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0																																																																																																																																																																																									
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continued ...

Table 10

No.	multipole	matrix
865	$\mathbb{Q}_{4,1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & -\frac{4\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{7}}{98} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{13\sqrt{42}}{98} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}}{14} \\ \frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{13\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{7}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{21}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{105}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{21}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{49} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
866	$\mathbb{Q}_{4,0}^{(1,-1;a)}$	$\frac{2\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{5\sqrt{42}}{49}$	0	0	0	0	0	0
		0	$-\frac{6\sqrt{7}}{49}$	0	0	0	0	0	0	$-\frac{4\sqrt{70}}{49}$	0	0	0	0	0
		0	0	$\frac{4\sqrt{7}}{49}$	0	0	0	0	0	0	$-\frac{5\sqrt{21}}{49}$	0	0	0	0
		0	0	0	$\frac{4\sqrt{7}}{49}$	0	0	0	0	0	$\frac{5\sqrt{21}}{49}$	0	0	0	0
		0	0	0	0	$-\frac{6\sqrt{7}}{49}$	0	0	0	0	0	$\frac{4\sqrt{70}}{49}$	0	0	0
		0	0	0	0	0	$\frac{2\sqrt{7}}{49}$	0	0	0	0	0	$-\frac{5\sqrt{42}}{49}$	0	0
		0	0	0	0	0	0	$-\frac{2\sqrt{7}}{7}$	0	0	0	0	0	0	0
		$\frac{5\sqrt{42}}{49}$	0	0	0	0	0	0	$\frac{26\sqrt{7}}{49}$	0	0	0	0	0	0
		0	$-\frac{4\sqrt{70}}{49}$	0	0	0	0	0	0	$\frac{6\sqrt{7}}{49}$	0	0	0	0	0
		0	0	$-\frac{5\sqrt{21}}{49}$	0	0	0	0	0	$-\frac{18\sqrt{7}}{49}$	0	0	0	0	0
		0	0	0	$\frac{5\sqrt{21}}{49}$	0	0	0	0	0	$-\frac{18\sqrt{7}}{49}$	0	0	0	0
		0	0	0	0	$\frac{4\sqrt{70}}{49}$	0	0	0	0	0	$\frac{6\sqrt{7}}{49}$	0	0	0
		0	0	0	0	0	$-\frac{5\sqrt{42}}{49}$	0	0	0	0	0	$\frac{26\sqrt{7}}{49}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{7}}{7}$	0	0

continued ...

Table 10

No.	multipole	matrix
867	$\mathbb{Q}_{4,-1}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{13\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{98} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}}{14} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{70}}{49} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{49} & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{210}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{21}}{49} & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{105}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{7}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{21}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{13\sqrt{42}}{98} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{49} & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{7} \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
868	$\mathbb{Q}_{4,-2}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{3\sqrt{3}}{7}$	0	0	0	0	0	0	0
		$\frac{6\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{9\sqrt{42}}{98}$	0	0	0	0	0	0
		0	$-\frac{2\sqrt{35}}{49}$	0	0	0	0	0	$\frac{17\sqrt{14}}{98}$	0	0	0	0	0	0
		0	0	$-\frac{2\sqrt{35}}{49}$	0	0	0	0	0	0	$-\frac{\sqrt{105}}{49}$	0	0	0	0
		0	0	0	$\frac{6\sqrt{7}}{49}$	0	0	0	0	0	0	$-\frac{10\sqrt{21}}{49}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0	0	0	0	0	0	0
		$\frac{10\sqrt{21}}{49}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0	0	0	0	0	0
		0	$\frac{\sqrt{105}}{49}$	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0	0	0	0	0
		0	0	$-\frac{17\sqrt{14}}{98}$	0	0	0	0	0	$\frac{8\sqrt{42}}{49}$	0	0	0	0	0
		0	0	0	$-\frac{9\sqrt{42}}{98}$	0	0	0	0	0	0	$-\frac{2\sqrt{14}}{49}$	0	0	0
		0	0	0	0	$\frac{3\sqrt{3}}{7}$	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{7}$	0	0

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																																
869	$\mathbb{Q}_{4,-3}^{(1,-1;a)}$	<table border="1"> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{21}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{2\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{3}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{2}}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{2\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{6}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{7}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{5\sqrt{6}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{2}}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{\sqrt{3}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{21}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{7}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{21}}{14}$	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{2}}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{3}}{14}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}}{2}$	0	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{2}}{7}$	0	0	0	0	0	0	$\frac{5\sqrt{6}}{14}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{7}}{7}$	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{6}}{14}$	0	0	0	0	0	0	$-\frac{8}{7}$	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{3}}{14}$	0	0	0	0	0	0	$\frac{8}{7}$	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{21}}{14}$	0	0	0	0	0	0	$\frac{4\sqrt{7}}{7}$	0	0	0	0	0
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0	0	0	$-\frac{3\sqrt{21}}{14}$	0	0	0	0	0	0	$\frac{4\sqrt{7}}{7}$	0	0	0	0	0																																																																																																																																																																																																																			

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Table 10

No.	multipole	matrix
870	$\mathbb{Q}_{4,-4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{42}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
871	$\mathbb{Q}_{6,6}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
872	$\mathbb{Q}_{6,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{5}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{5}}{33} & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{2}}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{11} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
873	$\mathbb{Q}_{6,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{462}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{770}}{363} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{55}}{363} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{55}}{363} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{165}}{121} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{770}}{363} & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{77}}{121} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}}{363} & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{77}}{121} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{165}}{121} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
874	$\mathbb{Q}_{6,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{231}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{77}}{121} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{462}}{363} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{66}}{363} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{66}}{363} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{22}}{121} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{462}}{363} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{154}}{121} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{77}}{121} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{231}}{363} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{121} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{22}}{121} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
875	$\mathbb{Q}_{6,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{231}}{1089} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{1155}}{1089} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{1089} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{1089} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{33}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{330}}{363} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{462}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{121} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{154}}{363} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{363} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{1155}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{363} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{121} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{330}}{363} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
876	$\mathbb{Q}_{6,1}^{(1,-1;a)}$	0	0	0	0	0	0	0	$\frac{5\sqrt{154}}{726}$	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{25\sqrt{462}}{2178}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{25\sqrt{231}}{1089}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{385}}{363}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{2310}}{2178}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{66}}{2178}$	0	0
		$-\frac{5\sqrt{66}}{2178}$	0	0	0	0	0	0	$-\frac{10\sqrt{11}}{121}$	0	0	0	0	0	0
		0	$\frac{5\sqrt{2310}}{2178}$	0	0	0	0	0	$\frac{20\sqrt{231}}{363}$	0	0	0	0	0	0
		0	0	$-\frac{5\sqrt{385}}{363}$	0	0	0	0	0	$-\frac{10\sqrt{1155}}{363}$	0	0	0	0	0
		0	0	0	$\frac{25\sqrt{231}}{1089}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	$-\frac{25\sqrt{462}}{2178}$	0	0	0	0	0	$\frac{10\sqrt{1155}}{363}$	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{154}}{726}$	0	0	0	0	0	$-\frac{20\sqrt{231}}{363}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{11}}{121}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
877	$\mathbb{Q}_{6,0}^{(1,-1;a)}$	0	0	0	0	0	0	$-\frac{5\sqrt{11}}{363}$	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{5\sqrt{165}}{363}$	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{25\sqrt{22}}{363}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{25\sqrt{22}}{363}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{165}}{363}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{11}}{363}$	0	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{66}}{363}$	0	0	0	0	0	0	0
		$-\frac{5\sqrt{11}}{363}$	0	0	0	0	0	0	$-\frac{25\sqrt{66}}{363}$	0	0	0	0	0	0
		0	$\frac{5\sqrt{165}}{363}$	0	0	0	0	0	0	$\frac{15\sqrt{66}}{121}$	0	0	0	0	0
		0	0	$-\frac{25\sqrt{22}}{363}$	0	0	0	0	0	$-\frac{25\sqrt{66}}{363}$	0	0	0	0	0
		0	0	0	$\frac{25\sqrt{22}}{363}$	0	0	0	0	0	$-\frac{25\sqrt{66}}{363}$	0	0	0	0
		0	0	0	0	$-\frac{5\sqrt{165}}{363}$	0	0	0	0	0	$\frac{15\sqrt{66}}{121}$	0	0	0
		0	0	0	0	$\frac{5\sqrt{11}}{363}$	0	0	0	0	0	0	$-\frac{25\sqrt{66}}{363}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{66}}{363}$	0

continued ...

Table 10

No.	multipole	matrix													
878	$\mathbb{Q}_{6,-1}^{(1,-1;a)}$	0	0	0	0	0	0	$\frac{5\sqrt{66}}{2178}$	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{5\sqrt{2310}}{2178}$	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{5\sqrt{385}}{363}$	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{25\sqrt{231}}{1089}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	$\frac{25\sqrt{462}}{2178}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{154}}{726}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{154}}{726}$	0	0	0
		0	0	0	0	0	0	$\frac{10\sqrt{11}}{121}$	0	0	0	0	0	0	0
		$-\frac{5\sqrt{154}}{726}$	0	0	0	0	0	0	$-\frac{20\sqrt{231}}{363}$	0	0	0	0	0	0
		0	$\frac{25\sqrt{462}}{2178}$	0	0	0	0	0	0	$\frac{10\sqrt{1155}}{363}$	0	0	0	0	0
		0	0	$-\frac{25\sqrt{231}}{1089}$	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$\frac{5\sqrt{385}}{363}$	0	0	0	0	0	$-\frac{10\sqrt{1155}}{363}$	0	0	0	0
		0	0	0	0	$-\frac{5\sqrt{2310}}{2178}$	0	0	0	0	0	$\frac{20\sqrt{231}}{363}$	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{66}}{2178}$	0	0	0	0	0	$-\frac{10\sqrt{11}}{121}$	0	0

continued ...

Table 10

No.	multipole	matrix
879	$\mathbb{Q}_{6,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{33}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{462}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{154}}{363} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{1155}}{1089} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}}{1089} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{330}}{363} & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{231}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{121} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{1155}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{363} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{154}}{363} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{363} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{462}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{154}}{121} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{33}}{1089} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{330}}{363} & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																															
880	$\mathbb{Q}_{6,-3}^{(1,-1;a)}$	<table border="1"> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{66}}{363}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{462}}{363}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{77}}{121}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{231}}{363}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td rowspan="2">$-\frac{5\sqrt{231}}{363}$</td><td rowspan="2">0</td><td rowspan="2"> $\frac{20\sqrt{22}}{121}$ </td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{154}}{121}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{5\sqrt{77}}{121}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{5\sqrt{462}}{363}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{154}}{121}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{66}}{363}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{20\sqrt{22}}{121}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{66}}{363}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{462}}{363}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{77}}{121}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{231}}{363}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{231}}{363}$	0	$\frac{20\sqrt{22}}{121}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{154}}{121}$	0	0	0	0	0	0	0	0	$\frac{5\sqrt{77}}{121}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{462}}{363}$	0	0	0	0	0	0	$\frac{10\sqrt{154}}{121}$	0	0	0	0	0	0	0	0	$\frac{5\sqrt{66}}{363}$	0	0	0	0	0	0	$-\frac{20\sqrt{22}}{121}$	0	0	0	0
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0	0	0	$\frac{5\sqrt{66}}{363}$	0	0	0	0	0	0	$-\frac{20\sqrt{22}}{121}$	0	0	0	0																																																																																																																																																																																																			

continued ...

Table 10

No.	multipole	matrix											
881	$\mathbb{Q}_{6,-4}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{55}}{363}$	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{5\sqrt{770}}{363}$	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{5\sqrt{462}}{363}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{165}}{121}$	0	0	0	0	0	0
		$-\frac{5\sqrt{462}}{363}$	0	0	0	0	0	$-\frac{10\sqrt{77}}{121}$	0	0	0	0	0
		0	$\frac{5\sqrt{770}}{363}$	0	0	0	0	0	$-\frac{10\sqrt{77}}{121}$	0	0	0	0
		0	0	$-\frac{10\sqrt{55}}{363}$	0	0	0	0	0	$\frac{10\sqrt{165}}{121}$	0	0	0

continued ...

Table 10

No.	multipole	matrix
882	$\mathbb{Q}_{6,-5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{5}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{7}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{7}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{5}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{2}}{11} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
883	$\mathbb{Q}_{6,-6}^{(1,-1;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $\frac{10\sqrt{3}}{33}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{10\sqrt{3}}{33}$ 0 0 0 0 0 0 $\frac{10\sqrt{2}}{11}$ 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
884	$\mathbb{Q}_{0,0}^{(1,1;a)}$	$\begin{bmatrix} -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3} & 0 & 0 \end{bmatrix}$

continued ...

Table 10

No.	multipole	matrix
885	$\mathbb{Q}_{2,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & \frac{9\sqrt{35}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{147} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{27\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{21}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{27\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{9\sqrt{35}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{210}}{147} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{15}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{210}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{70}}{49} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{49} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{16\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{70}}{49} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																			
886	$\mathbb{Q}_{2,1}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>$-\frac{9\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{18\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{22\sqrt{21}}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{42}}{21}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{18\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{70}}{49}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{9\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{105}}{147}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{10\sqrt{3}}{21}$</td></tr> <tr><td rowspan="2">$-\frac{10\sqrt{3}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{3\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{2\sqrt{105}}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{42}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{2\sqrt{70}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{210}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{42}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{22\sqrt{21}}{147}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{210}}{49}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{7}}{49}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{42}}{49}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{2}}{7}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$-\frac{9\sqrt{70}}{49}$	0	0	0	0	0	0	$\frac{10\sqrt{7}}{49}$	0	0	0	0	0	0	0	$-\frac{18\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{22\sqrt{21}}{147}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{42}}{21}$	0	0	0	0	0	0	0	$\frac{18\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{2\sqrt{70}}{49}$	0	0	0	0	0	0	0	$\frac{9\sqrt{70}}{49}$	0	0	0	0	0	0	$-\frac{2\sqrt{105}}{147}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{3}}{21}$	$-\frac{10\sqrt{3}}{21}$	0	0	0	0	0	0	$\frac{3\sqrt{2}}{7}$	0	0	0	0	0	0	0	$-\frac{2\sqrt{105}}{147}$	0	0	0	0	0	$\frac{4\sqrt{42}}{49}$	0	0	0	0	0	0	0	$\frac{2\sqrt{70}}{49}$	0	0	0	0	0	0	$\frac{\sqrt{210}}{49}$	0	0	0	0	0	0	0	$\frac{2\sqrt{42}}{21}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{22\sqrt{21}}{147}$	0	0	0	0	0	0	$-\frac{\sqrt{210}}{49}$	0	0	0	0	0	0	0	$\frac{10\sqrt{7}}{49}$	0	0	0	0	0	$-\frac{4\sqrt{42}}{49}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{2}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	$-\frac{2\sqrt{105}}{147}$	0	0	0	0	0	$\frac{4\sqrt{42}}{49}$	0	0	0	0	0																																																																																																																																																																																								
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0	0	0	0	$\frac{22\sqrt{21}}{147}$	0	0	0	0	0	0	$-\frac{\sqrt{210}}{49}$	0	0																																																																																																																																																																																								
0	0	0	0	0	$\frac{10\sqrt{7}}{49}$	0	0	0	0	0	$-\frac{4\sqrt{42}}{49}$	0	0																																																																																																																																																																																								
0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{2}}{7}$	0																																																																																																																																																																																								
0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																								

continued ...

Table 10

No.	multipole	matrix
887	$\mathbb{Q}_{2,0}^{(1,1;a)}$	$\frac{15\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{10\sqrt{14}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad -\frac{3\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{2\sqrt{210}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{12\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{4\sqrt{7}}{49} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad -\frac{12\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{4\sqrt{7}}{49} \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad -\frac{3\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{2\sqrt{210}}{49} \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{15\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{10\sqrt{14}}{49} \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{21}}{7} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$-\frac{10\sqrt{14}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad -\frac{2\sqrt{210}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{3\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{4\sqrt{7}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{5\sqrt{21}}{49} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad \frac{4\sqrt{7}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{5\sqrt{21}}{49} \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad \frac{2\sqrt{210}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{3\sqrt{21}}{49} \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{10\sqrt{14}}{49} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{21}}{49} \quad 0$
		$0 \quad 0 \quad -\frac{\sqrt{21}}{7}$

continued ...

Table 10

No.	multipole	matrix
888	$\mathbb{Q}_{2,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{9\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{147} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{18\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{42}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{18\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{22\sqrt{21}}{147} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{9\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{7}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{42}}{49} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{22\sqrt{21}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{49} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{70}}{49} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{49} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{147} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{42}}{49} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
889	$\mathbb{Q}_{2,-2}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{4\sqrt{15}}{21}$	0	0	0	0	0	0	0
		$\frac{9\sqrt{35}}{49}$	0	0	0	0	0	0	$\frac{8\sqrt{210}}{147}$	0	0	0	0	0	0
		0	$\frac{27\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{4\sqrt{70}}{49}$	0	0	0	0	0
		0	0	$\frac{27\sqrt{7}}{49}$	0	0	0	0	0	0	$\frac{16\sqrt{21}}{147}$	0	0	0	0
		0	0	0	$\frac{9\sqrt{35}}{49}$	0	0	0	0	0	0	$\frac{4\sqrt{105}}{147}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{\sqrt{6}}{7}$	0	0	0	0	0	0	0
		$-\frac{4\sqrt{105}}{147}$	0	0	0	0	0	0	$-\frac{3\sqrt{70}}{49}$	0	0	0	0	0	0
		0	$-\frac{16\sqrt{21}}{147}$	0	0	0	0	0	$-\frac{2\sqrt{210}}{49}$	0	0	0	0	0	0
		0	0	$-\frac{4\sqrt{70}}{49}$	0	0	0	0	0	$-\frac{2\sqrt{210}}{49}$	0	0	0	0	0
		0	0	0	$-\frac{8\sqrt{210}}{147}$	0	0	0	0	0	$-\frac{3\sqrt{70}}{49}$	0	0	0	0
		0	0	0	0	$-\frac{4\sqrt{15}}{21}$	0	0	0	0	0	$-\frac{\sqrt{6}}{7}$	0	0	0

continued ...

Table 10

No.	multipole	matrix											
890	$\mathbb{Q}_{4,4}^{(1,1;a)}$	0	0	0	0	$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$\frac{80\sqrt{77}}{2541}$	0
		0	0	0	0	0	$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$\frac{32\sqrt{1155}}{2541}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{8\sqrt{330}}{363}$
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$-\frac{8\sqrt{330}}{363}$	0	0	0	0	0	$\frac{5\sqrt{110}}{363}$	0	0
		0	0	0	0	$-\frac{32\sqrt{1155}}{2541}$	0	0	0	0	0	$\frac{25\sqrt{462}}{2541}$	0
		0	0	0	0	0	$-\frac{80\sqrt{77}}{2541}$	0	0	0	0	0	$\frac{25\sqrt{462}}{2541}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{110}}{363}$
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix												
891	$\mathbb{Q}_{4,3}^{(1,1;a)}$	0	0	0	$\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$-\frac{20\sqrt{2310}}{2541}$	0	0	0
		0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{770}}{363}$	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$\frac{4\sqrt{1155}}{2541}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{165}}{121}$
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	$\frac{4\sqrt{165}}{121}$	0	0	0	0	0	$-\frac{10\sqrt{55}}{363}$	0	0	0	0
		0	0	0	$\frac{4\sqrt{1155}}{2541}$	0	0	0	0	0	$-\frac{20\sqrt{385}}{2541}$	0	0	0
		0	0	0	0	$-\frac{4\sqrt{770}}{363}$	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{20\sqrt{2310}}{2541}$	0	0	0	0	0	$\frac{20\sqrt{385}}{2541}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{55}}{363}$
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
892	$\mathbb{Q}_{4,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{10\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{80\sqrt{165}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{50\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{40\sqrt{33}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{50\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{68\sqrt{110}}{2541} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{12\sqrt{330}}{847} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{1155}}{847} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{1155}}{847} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{462}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{330}}{847} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{110}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{68\sqrt{110}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{330}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{40\sqrt{33}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{330}}{2541} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{80\sqrt{165}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{110}}{2541} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{462}}{2541} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
893	$\mathbb{Q}_{4,1}^{(1,1;a)}$	0	$\frac{20\sqrt{55}}{231}$	0	0	0	0	0	0	$-\frac{200\sqrt{22}}{2541}$	0	0	0	0	0
		0	0	$-\frac{50\sqrt{22}}{231}$	0	0	0	0	0	$\frac{40\sqrt{66}}{2541}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{20\sqrt{33}}{363}$	0	0	0	0
		0	0	0	0	$\frac{50\sqrt{22}}{231}$	0	0	0	0	0	$\frac{4\sqrt{55}}{2541}$	0	0	0
		0	0	0	0	0	$-\frac{20\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{52\sqrt{330}}{2541}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{20\sqrt{462}}{2541}$	0
		$\frac{20\sqrt{462}}{2541}$	0	0	0	0	0	0	$-\frac{50\sqrt{77}}{2541}$	0	0	0	0	0	0
		0	$-\frac{52\sqrt{330}}{2541}$	0	0	0	0	0	$\frac{50\sqrt{33}}{2541}$	0	0	0	0	0	0
		0	0	$\frac{4\sqrt{55}}{2541}$	0	0	0	0	0	$\frac{10\sqrt{165}}{847}$	0	0	0	0	0
		0	0	0	$\frac{20\sqrt{33}}{363}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	$\frac{40\sqrt{66}}{2541}$	0	0	0	0	0	$-\frac{10\sqrt{165}}{847}$	0	0	0
		0	0	0	0	0	$-\frac{200\sqrt{22}}{2541}$	0	0	0	0	0	$-\frac{50\sqrt{33}}{2541}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{50\sqrt{77}}{2541}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
894	$\mathbb{Q}_{4,0}^{(1,1;a)}$	$-\frac{10\sqrt{55}}{231}$	0	0	0	0	0	0	$\frac{40\sqrt{330}}{2541}$	0	0	0	0	0	0
		0	$\frac{10\sqrt{55}}{77}$	0	0	0	0	0	0	$-\frac{160\sqrt{22}}{2541}$	0	0	0	0	0
		0	0	$-\frac{20\sqrt{55}}{231}$	0	0	0	0	0	0	$-\frac{40\sqrt{165}}{2541}$	0	0	0	0
		0	0	0	$-\frac{20\sqrt{55}}{231}$	0	0	0	0	0	$\frac{40\sqrt{165}}{2541}$	0	0	0	0
		0	0	0	0	$\frac{10\sqrt{55}}{77}$	0	0	0	0	0	$\frac{160\sqrt{22}}{2541}$	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{55}}{231}$	0	0	0	0	0	$-\frac{40\sqrt{330}}{2541}$	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{55}}{363}$	0	0	0	0	0	0	0
		$\frac{40\sqrt{330}}{2541}$	0	0	0	0	0	0	$-\frac{65\sqrt{55}}{2541}$	0	0	0	0	0	0
		0	$-\frac{160\sqrt{22}}{2541}$	0	0	0	0	0	0	$-\frac{5\sqrt{55}}{847}$	0	0	0	0	0
		0	0	$-\frac{40\sqrt{165}}{2541}$	0	0	0	0	0	0	$\frac{15\sqrt{55}}{847}$	0	0	0	0
		0	0	0	$\frac{40\sqrt{165}}{2541}$	0	0	0	0	0	0	$\frac{15\sqrt{55}}{847}$	0	0	0
		0	0	0	0	$\frac{160\sqrt{22}}{2541}$	0	0	0	0	0	0	$-\frac{5\sqrt{55}}{847}$	0	0
		0	0	0	0	0	$-\frac{40\sqrt{330}}{2541}$	0	0	0	0	0	0	$-\frac{65\sqrt{55}}{2541}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{55}}{363}$	0

continued ...

Table 10

No.	multipole	matrix													
895	$\mathbb{Q}_{4,-1}^{(1,1;a)}$	0	0	0	0	0	0	$-\frac{20\sqrt{462}}{2541}$	0	0	0	0	0	0	0
		$-\frac{20\sqrt{55}}{231}$	0	0	0	0	0	0	$\frac{52\sqrt{330}}{2541}$	0	0	0	0	0	0
		0	$\frac{50\sqrt{22}}{231}$	0	0	0	0	0	0	$-\frac{4\sqrt{55}}{2541}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{20\sqrt{33}}{363}$	0	0	0	0	0
		0	0	0	$-\frac{50\sqrt{22}}{231}$	0	0	0	0	0	$-\frac{40\sqrt{66}}{2541}$	0	0	0	0
		0	0	0	0	$\frac{20\sqrt{55}}{231}$	0	0	0	0	0	$\frac{200\sqrt{22}}{2541}$	0	0	0
		0	0	0	0	0	0	$\frac{50\sqrt{77}}{2541}$	0	0	0	0	0	0	0
		$\frac{200\sqrt{22}}{2541}$	0	0	0	0	0	0	$-\frac{50\sqrt{33}}{2541}$	0	0	0	0	0	0
		0	$-\frac{40\sqrt{66}}{2541}$	0	0	0	0	0	0	$-\frac{10\sqrt{165}}{847}$	0	0	0	0	0
		0	0	$-\frac{20\sqrt{33}}{363}$	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$-\frac{4\sqrt{55}}{2541}$	0	0	0	0	0	0	$\frac{10\sqrt{165}}{847}$	0	0	0
		0	0	0	0	$\frac{52\sqrt{330}}{2541}$	0	0	0	0	0	0	$\frac{50\sqrt{33}}{2541}$	0	0
		0	0	0	0	0	$-\frac{20\sqrt{462}}{2541}$	0	0	0	0	0	$-\frac{50\sqrt{77}}{2541}$	0	0

continued ...

Table 10

No.	multipole	matrix
896	$\mathbb{Q}_{4,-2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{1155}}{847} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{330}}{847} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{50\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{68\sqrt{110}}{2541} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{50\sqrt{11}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{40\sqrt{33}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{55}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{80\sqrt{165}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{80\sqrt{165}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{110}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{40\sqrt{33}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{330}}{2541} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{68\sqrt{110}}{2541} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{330}}{2541} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{12\sqrt{330}}{847} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{110}}{2541} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{1155}}{847} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{462}}{2541} & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
897	$\mathbb{Q}_{4,-3}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{4\sqrt{165}}{121}$	0	0	0	0	0	0
		$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$-\frac{4\sqrt{1155}}{2541}$	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{4\sqrt{770}}{363}$	0	0	0	0
		0	0	$\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$\frac{20\sqrt{2310}}{2541}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{55}}{363}$	0	0	0	0	0	0
		$\frac{20\sqrt{2310}}{2541}$	0	0	0	0	0	$\frac{20\sqrt{385}}{2541}$	0	0	0	0	0
		0	$\frac{4\sqrt{770}}{363}$	0	0	0	0	0	0	0	0	0	0
		0	0	$-\frac{4\sqrt{1155}}{2541}$	0	0	0	0	0	$-\frac{20\sqrt{385}}{2541}$	0	0	0
		0	0	0	$-\frac{4\sqrt{165}}{121}$	0	0	0	0	0	$-\frac{10\sqrt{55}}{363}$	0	0

continued ...

Table 10

No.	multipole	matrix											
898	$\mathbb{Q}_{4,-4}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{8\sqrt{330}}{363}$	0	0	0	0	0	0
		$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$-\frac{32\sqrt{1155}}{2541}$	0	0	0	0	0
		0	$-\frac{10\sqrt{770}}{231}$	0	0	0	0	0	$-\frac{80\sqrt{77}}{2541}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{110}}{363}$	0	0	0	0	0	0
		$\frac{80\sqrt{77}}{2541}$	0	0	0	0	0	$\frac{25\sqrt{462}}{2541}$	0	0	0	0	0
		0	$\frac{32\sqrt{1155}}{2541}$	0	0	0	0	0	$\frac{25\sqrt{462}}{2541}$	0	0	0	0
		0	0	$\frac{8\sqrt{330}}{363}$	0	0	0	0	0	$\frac{5\sqrt{110}}{363}$	0	0	0

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																														
899	$\mathbb{G}_{1,1}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{2}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}i}{2}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{42}i}{2}$</td><td>0</td></tr> <tr><td>$\frac{\sqrt{42}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{30}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{2}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{6}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{3}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{30}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}i}{2}$	0	$\frac{\sqrt{42}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{30}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{3}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{6}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}i}{2}$	0	0	0	0	0	0	0	0
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Table 10

No.	multipole	matrix																																																																																																																																																																														
900	$\mathbb{G}_{1,0}^{(1,0;a)}$	<table border="1"> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{6}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{6}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\sqrt{6}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\sqrt{6}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\sqrt{5}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\sqrt{3}i$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	0	0	0	0	0	0	0	$-\sqrt{3}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{6}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{6}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{3}i$	0	0	0	$\sqrt{3}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{6}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{6}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{5}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\sqrt{3}i$	0	0	0	0	0	0	0	0
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0	0	0	0	0	$\sqrt{3}i$	0	0	0	0	0	0	0	0																																																																																																																																																																			

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Table 10

No.	multipole	matrix
901	$\mathbb{G}_{1,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{5}i & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{3}i & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{3}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \sqrt{5}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
902	$\mathbb{G}_{3,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{2} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3i}{2} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}i}{2} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{7}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
903	$\mathbb{G}_{3,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}i}{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{3} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{6} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}i}{3} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{21}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{2}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{3}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

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Table 10

No.	multipole	matrix
904	$\mathbb{G}_{3,1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\sqrt{2}i & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{3} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{6} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{6} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{6} \\ -\frac{\sqrt{42}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{30}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{5}i}{2} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{6}i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

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Table 10

No.	multipole	matrix
905	$\mathbb{G}_{3,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -i & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -i & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{2}i \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\sqrt{2}i & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

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Table 10

No.	multipole	matrix																																																																																																																																																																																																	
906	$\mathbb{G}_{3,-1}^{(1,0;a)}$	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{42}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{3}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{6}i}{3}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\sqrt{2}i$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td rowspan="2">$-\sqrt{2}i$</td><td rowspan="2">0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{6}i}{3}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{\sqrt{3}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}i}{2}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{42}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	$-\frac{\sqrt{42}i}{6}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{30}i}{6}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{5}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}i}{6}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{6}i}{3}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{2}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\sqrt{2}i$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{6}i}{3}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}i}{6}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{5}i}{2}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{30}i}{6}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{42}i}{6}$	0	0	0	0	0	0	0	0	0
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Table 10

No.	multipole	matrix
907	$\mathbb{G}_{3,-2}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{\sqrt{21}i}{3}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{\sqrt{6}i}{6}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{\sqrt{2}i}{2}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $\frac{\sqrt{15}i}{3}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{2\sqrt{3}i}{3}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{2\sqrt{3}i}{3}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{\sqrt{15}i}{3}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $-\frac{\sqrt{2}i}{2}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{\sqrt{6}i}{6}$ 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $\frac{\sqrt{21}i}{3}$ 0 0 0 0 0 0 0 0 0 0

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Table 10

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Table 10

No.	multipole	matrix
909	$\mathbb{G}_{5,5}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{35}i}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35i}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
910	$\mathbb{G}_{5,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}i}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{14\sqrt{5}i}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{14\sqrt{5}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{70}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
911	$\mathbb{G}_{5,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{35}i}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{10}i}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
		$0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$

continued ...

Table 10

No.	multipole	matrix
912	$\mathbb{G}_{5,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{210}i}{99} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{42}i}{99} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{99} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{30}i}{99} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{7\sqrt{30}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{105}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{42}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{210}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
913	$\mathbb{G}_{5,1}^{(1,0;a)}$	0 0 0 0 0 0 0 0 $\frac{25\sqrt{2}i}{66}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{65\sqrt{6}i}{198}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{5\sqrt{3}i}{99}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{5}i}{3}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{23\sqrt{30}i}{198}$ 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $\frac{5\sqrt{42}i}{198}$
		$\frac{5\sqrt{42}i}{198}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{23\sqrt{30}i}{198}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $\frac{\sqrt{5}i}{3}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{5\sqrt{3}i}{99}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{65\sqrt{6}i}{198}$ 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $\frac{25\sqrt{2}i}{66}$ 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																					
914	$\mathbb{G}_{5,0}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td> <table border="1"> <tr><td>$\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td> <table border="1"> <tr><td>0</td><td>$\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table> </td></tr> </table> </td></tr> </table>	0	0	0	0	0	0	0	$-\frac{5\sqrt{5}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{3}i}{11}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{10}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{10}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{3}i}{11}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{5}i}{33}$	0	0	0	<table border="1"> <tr><td>$\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{10}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{3}i}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td> <table border="1"> <tr><td>0</td><td>$\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table> </td></tr> </table>	$\frac{5\sqrt{5}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{3}i}{11}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{10}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{10}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{3}i}{11}$	0	0	0	0	0	0	0	0	0	0	<table border="1"> <tr><td>0</td><td>$\frac{5\sqrt{5}i}{33}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$\frac{5\sqrt{5}i}{33}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	$-\frac{5\sqrt{3}i}{11}$	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																									
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continued ...

Table 10

No.	multipole	matrix
915	$\mathbb{G}_{5,-1}^{(1,0;a)}$	0 0 0 0 0 0 $\frac{5\sqrt{42}i}{198}$ 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{23\sqrt{30}i}{198}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{\sqrt{5}i}{3}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $\frac{5\sqrt{3}i}{99}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{65\sqrt{6}i}{198}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{25\sqrt{2}i}{66}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$\frac{25\sqrt{2}i}{66}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{65\sqrt{6}i}{198}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $\frac{5\sqrt{3}i}{99}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{\sqrt{5}i}{3}$ 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{23\sqrt{30}i}{198}$ 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $\frac{5\sqrt{42}i}{198}$ 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
916	$\mathbb{G}_{5,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{30}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{42}i}{99} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{210}i}{99} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{210}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10\sqrt{42}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{8\sqrt{105}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{7\sqrt{30}i}{99} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
917	$\mathbb{G}_{5,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{10}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{105}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{70}i}{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{7\sqrt{10}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
918	$\mathbb{G}_{5,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{14\sqrt{5}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{42}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{70}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$
		$0 & 0 & -\frac{14\sqrt{5}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$

continued ...

Table 10

No.	multipole	matrix
919	$\mathbb{G}_{5,-5}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{5\sqrt{35}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{35i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
920	$\mathbb{T}_{2,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{45} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}i}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}i}{45} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{45} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{210}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{15}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{6}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																																	
921	$\mathbb{T}_{2,1}^{(1,0;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{2}i}{6}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{11\sqrt{6}i}{90}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{7\sqrt{3}i}{45}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{5}i}{15}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}i}{90}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td> <table border="1"> 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0	0	$\frac{\sqrt{5}i}{15}$	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	$\frac{7\sqrt{3}i}{45}$	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	0	$\frac{11\sqrt{6}i}{90}$	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	0	0	$\frac{\sqrt{2}i}{6}$	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																					
0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																																						

continued ...

Table 10

No.	multipole	matrix
922	$\mathbb{T}_{2,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{15} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}i}{15} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{15} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{i}{3} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{i}{3} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{15}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
923	$\mathbb{T}_{2,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}i}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{90} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{3}i}{45} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{11\sqrt{6}i}{90} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}i}{6} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{2}i}{6} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{11\sqrt{6}i}{90} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{7\sqrt{3}i}{45} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{5}i}{15} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{90} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}i}{18} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
924	$T_{2,-2}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{\sqrt{210}i}{45}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{4\sqrt{15}i}{45}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $-\frac{2\sqrt{5}i}{15}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{4\sqrt{6}i}{45}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{30}i}{45}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{\sqrt{30}i}{45}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{4\sqrt{6}i}{45}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $-\frac{2\sqrt{5}i}{15}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $-\frac{4\sqrt{15}i}{45}$ 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{\sqrt{210}i}{45}$ 0 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
925	$\mathbb{T}_{4,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}i}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}i}{165} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{7\sqrt{30}i}{165} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{7\sqrt{30}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
926	$\mathbb{T}_{4,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}i}{66} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{70}i}{330} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{330} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{7\sqrt{15}i}{110} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{7\sqrt{15}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{105}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{7\sqrt{70}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{66} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
927	$\mathbb{T}_{4,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{17\sqrt{10}i}{330} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{30}i}{110} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{105}i}{55} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{105}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{3\sqrt{30}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{17\sqrt{10}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{3}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
928	$\mathbb{T}_{4,1}^{(1,0;a)}$	0 0 0 0 0 0 0 0 $\frac{5\sqrt{2}i}{33}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{6}i}{33}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{7\sqrt{3}i}{66}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{5}i}{330}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $\frac{13\sqrt{30}i}{330}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 $-\frac{\sqrt{42}i}{66}$ 0
		$\frac{\sqrt{42}i}{66}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{13\sqrt{30}i}{330}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $\frac{\sqrt{5}i}{330}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{7\sqrt{3}i}{66}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $\frac{\sqrt{6}i}{33}$ 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{5\sqrt{2}i}{33}$ 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
929	$\mathbb{T}_{4,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}i}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}i}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}i}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{30}i}{33} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{30}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{2}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{15}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{2}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{30}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
930	$\mathbb{T}_{4,-1}^{(1,0;a)}$	0 0 0 0 0 0 $\frac{\sqrt{42}i}{66}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $-\frac{13\sqrt{30}i}{330}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $\frac{\sqrt{5}i}{330}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $\frac{7\sqrt{3}i}{66}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $\frac{\sqrt{6}i}{33}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 $-\frac{5\sqrt{2}i}{33}$ 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$\frac{5\sqrt{2}i}{33}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $-\frac{\sqrt{6}i}{33}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $-\frac{7\sqrt{3}i}{66}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $-\frac{\sqrt{5}i}{330}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $\frac{13\sqrt{30}i}{330}$ 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 $-\frac{\sqrt{42}i}{66}$ 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
931	$\mathbb{T}_{4,-2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{30}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{17\sqrt{10}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{3}i}{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}i}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{15}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{17\sqrt{10}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{30}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{55} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
932	$\mathbb{T}_{4,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{15}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{7\sqrt{70}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}i}{66} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{210}i}{66} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{7\sqrt{70}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{105}i}{330} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{7\sqrt{15}i}{110} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
933	$\mathbb{T}_{4,-4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{7\sqrt{30}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{105}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}i}{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{7}i}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{105}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{7\sqrt{30}i}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
934	$\mathbb{T}_{6,6}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}i}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
935	$\mathbb{T}_{6,5}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{11}i}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{385}i}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{385}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{11}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
936	$\mathbb{T}_{6,4}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{6}i}{429} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{10}i}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{35}i}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{35}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{35\sqrt{10}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{6}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
937	$\mathbb{T}_{6,3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{3}i}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35i}{143} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{6}i}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}i}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{42}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{35\sqrt{6}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{35i}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{3}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
938	$\mathbb{T}_{6,2}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{70\sqrt{3}i}{1287} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{70\sqrt{15}i}{1287} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{70\sqrt{2}i}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{70\sqrt{6}i}{1287} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}i}{1287} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{21}i}{1287} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{70\sqrt{6}i}{1287} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{70\sqrt{2}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{70\sqrt{15}i}{1287} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{70\sqrt{3}i}{1287} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																		
939	$\mathbb{T}_{6,1}^{(1,0;a)}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{35\sqrt{2}i}{858}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{175\sqrt{6}i}{2574}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{175\sqrt{3}i}{1287}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{35\sqrt{5}i}{429}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{35\sqrt{30}i}{2574}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{42}i}{2574}$</td><td>0</td></tr> <tr><td>$-\frac{5\sqrt{42}i}{2574}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{35\sqrt{30}i}{2574}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{35\sqrt{5}i}{429}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{175\sqrt{3}i}{1287}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{175\sqrt{6}i}{2574}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{35\sqrt{2}i}{858}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	$-\frac{35\sqrt{2}i}{858}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{175\sqrt{6}i}{2574}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{175\sqrt{3}i}{1287}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{35\sqrt{5}i}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{35\sqrt{30}i}{2574}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{42}i}{2574}$	0	$-\frac{5\sqrt{42}i}{2574}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{35\sqrt{30}i}{2574}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{35\sqrt{5}i}{429}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{175\sqrt{3}i}{1287}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{175\sqrt{6}i}{2574}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{35\sqrt{2}i}{858}$	0	0	0	0	0	0	0
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0	0	0	0	0	$\frac{35\sqrt{2}i}{858}$	0	0	0	0	0	0	0																																																																																																																																																								

continued ...

Table 10

No.	multipole	matrix
940	$\mathbb{T}_{6,0}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{105}i}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{14}i}{429} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{14}i}{429} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{105}i}{429} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{7}i}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{7}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{5\sqrt{105}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{25\sqrt{14}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{25\sqrt{14}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{105}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{7}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
941	$\mathbb{T}_{6,-1}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}i}{2574} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{30}i}{2574} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{5}i}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{175\sqrt{3}i}{1287} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{175\sqrt{6}i}{2574} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{2}i}{858} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{35\sqrt{2}i}{858} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{175\sqrt{6}i}{2574} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{175\sqrt{3}i}{1287} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{35\sqrt{5}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{35\sqrt{30}i}{2574} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}i}{2574} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
942	$T_{6,-2}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{10\sqrt{21}i}{1287}$ 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $\frac{70\sqrt{6}i}{1287}$ 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 $-\frac{70\sqrt{2}i}{429}$ 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 $\frac{70\sqrt{15}i}{1287}$ 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 $-\frac{70\sqrt{3}i}{1287}$ 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{70\sqrt{3}i}{1287}$ 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $\frac{70\sqrt{15}i}{1287}$ 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 $-\frac{70\sqrt{2}i}{429}$ 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 $\frac{70\sqrt{6}i}{1287}$ 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 $-\frac{10\sqrt{21}i}{1287}$ 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
943	$\mathbb{T}_{6,-3}^{(1,0;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{6}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35i}{143} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{3}i}{429} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{35\sqrt{3}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{35i}{143} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{35\sqrt{6}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{42}i}{429} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
944	$\mathbb{T}_{6,-4}^{(1,0;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{35}i}{429}$	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{35\sqrt{10}i}{429}$	0	0	0	0	0
		0	0	0	0	0	0	0	$-\frac{35\sqrt{6}i}{429}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		$-\frac{35\sqrt{6}i}{429}$	0	0	0	0	0	0	0	0	0	0	0
		0	$\frac{35\sqrt{10}i}{429}$	0	0	0	0	0	0	0	0	0	0
		0	0	$-\frac{10\sqrt{35}i}{429}$	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
945	$\mathbb{T}_{6,-5}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{5\sqrt{385}i}{429}$ 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 $\frac{35\sqrt{11}i}{429}$ 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{35\sqrt{11}i}{429}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 $\frac{5\sqrt{385}i}{429}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix
946	$\mathbb{T}_{6,-6}^{(1,0;a)}$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 $-\frac{10\sqrt{231}i}{429}$ 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		$-\frac{10\sqrt{231}i}{429}$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																		
947	$\mathbb{M}_{1,1}^{(a)}$	<table border="1"> <tr><td>0</td><td>$-\frac{4\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{1}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{16}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{3}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{6}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{16}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{15}}{7}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{21}}{7}$</td><td>0</td></tr> <tr><td>$\frac{\sqrt{21}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{14}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{15}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{6}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{30}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{12\sqrt{2}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{3}}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{30}}{7}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{1}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{6\sqrt{6}}{7}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{3\sqrt{14}}{7}$</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$-\frac{4\sqrt{10}}{7}$	0	0	0	0	0	0	$-\frac{1}{7}$	0	0	0	0	0	0	0	0	$-\frac{16}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{3}}{7}$	0	0	0	0	0	0	0	0	$-\frac{12\sqrt{2}}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{6}}{7}$	0	0	0	0	0	0	0	0	$-\frac{16}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{10}}{7}$	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{10}}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{15}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{21}}{7}$	0	$\frac{\sqrt{21}}{7}$	0	0	0	0	0	0	$-\frac{3\sqrt{14}}{7}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{15}}{7}$	0	0	0	0	0	0	$-\frac{6\sqrt{6}}{7}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{10}}{7}$	0	0	0	0	0	0	$-\frac{3\sqrt{30}}{7}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{6}}{7}$	0	0	0	0	0	0	$-\frac{12\sqrt{2}}{7}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{3}}{7}$	0	0	0	0	0	0	$-\frac{3\sqrt{30}}{7}$	0	0	0	0	0	0	0	0	$\frac{1}{7}$	0	0	0	0	0	0	$-\frac{6\sqrt{6}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{3\sqrt{14}}{7}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																																						

continued ...

Table 10

No.	multipole	matrix
948	$\mathbb{M}_{1,0}^{(a)}$	$\begin{array}{cccccccccccccc} \frac{20}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{12}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{12}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{20}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{15}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{9}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{9}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{15}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -3 \end{array}$

continued ...

Table 10

No.	multipole	matrix
949	$\mathbb{M}_{1,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{16}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{12\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{16}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{30}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{12\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{30}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{6\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{14}}{7} & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
950	$\mathbb{M}_{3,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
951	$\mathbb{M}_{3,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & -\frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{7} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
952	$\mathbb{M}_{3,1}^{(a)}$	0	$\frac{2\sqrt{15}}{7}$	0	0	0	0	0	$\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0
		0	0	$-\frac{\sqrt{6}}{7}$	0	0	0	0	0	$\frac{2\sqrt{2}}{7}$	0	0	0	0	0
		0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0	$-\frac{1}{7}$	0	0	0	0
		0	0	0	0	$-\frac{\sqrt{6}}{7}$	0	0	0	0	0	$-\frac{\sqrt{15}}{7}$	0	0	0
		0	0	0	0	0	$\frac{2\sqrt{15}}{7}$	0	0	0	0	0	$-\frac{\sqrt{10}}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{14}}{7}$	0	0
		$-\frac{\sqrt{14}}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0	0	0	0	0	0
		0	$\frac{\sqrt{10}}{7}$	0	0	0	0	0	$\frac{2}{7}$	0	0	0	0	0	0
		0	0	$\frac{\sqrt{15}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{5}}{7}$	0	0	0	0	0
		0	0	0	$\frac{1}{7}$	0	0	0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0
		0	0	0	0	$-\frac{2\sqrt{2}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{5}}{7}$	0	0	0
		0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	$\frac{2}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
953	$\mathbb{M}_{3,0}^{(a)}$	$\begin{pmatrix} -\frac{5}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5}{7} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
954	$\mathbb{M}_{3,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{1}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{1}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{7} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{21}}{7} & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
955	$\mathbb{M}_{3,-2}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{15}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{6}}{7} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{7} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
956	$\mathbb{M}_{3,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{5\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{\sqrt{6}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{7} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{3\sqrt{2}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{7} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{3\sqrt{3}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8}{7} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{21}}{7} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{7}}{7} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
957	$M_{5,5}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{7}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{42}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{30}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{30}}{33} & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{7}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
958	$\mathbb{M}_{5,4}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & \frac{10\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{35}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{6}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{210}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{35}}{77} & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{210}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
959	$M_{5,3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{20\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{42}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{20\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{10\sqrt{3}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{35}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{7}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
960	$M_{5,2}^{(a)}$	$\begin{pmatrix} 0 & 0 & \frac{10\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{50\sqrt{7}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{105}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{35}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{105}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{42}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{40\sqrt{14}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{10}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{10}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{40\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{10\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{14}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{20\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{14}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{50\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{10}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

continued ...

Table 10

No.	multipole	matrix													
962	$M_{5,0}^{(a)}$	$\frac{10}{231}$	0	0	0	0	0	$\frac{25\sqrt{6}}{231}$	0	0	0	0	0	0	0
		0	$-\frac{50}{231}$	0	0	0	0	0	$-\frac{15\sqrt{10}}{77}$	0	0	0	0	0	0
		0	0	$\frac{100}{231}$	0	0	0	0	0	$\frac{50\sqrt{3}}{231}$	0	0	0	0	0
		0	0	0	$-\frac{100}{231}$	0	0	0	0	0	$\frac{50\sqrt{3}}{231}$	0	0	0	0
		0	0	0	0	$\frac{50}{231}$	0	0	0	0	0	$-\frac{15\sqrt{10}}{77}$	0	0	0
		0	0	0	0	0	$-\frac{10}{231}$	0	0	0	0	0	$\frac{25\sqrt{6}}{231}$	0	0
		0	0	0	0	0	0	$\frac{5}{33}$	0	0	0	0	0	0	0
		$\frac{25\sqrt{6}}{231}$	0	0	0	0	0	0	$-\frac{115}{231}$	0	0	0	0	0	0
		0	$-\frac{15\sqrt{10}}{77}$	0	0	0	0	0	0	$\frac{85}{231}$	0	0	0	0	0
		0	0	$\frac{50\sqrt{3}}{231}$	0	0	0	0	0	$\frac{25}{77}$	0	0	0	0	0
		0	0	0	$\frac{50\sqrt{3}}{231}$	0	0	0	0	0	$-\frac{25}{77}$	0	0	0	0
		0	0	0	0	$-\frac{15\sqrt{10}}{77}$	0	0	0	0	0	$-\frac{85}{231}$	0	0	0
		0	0	0	0	0	$\frac{25\sqrt{6}}{231}$	0	0	0	0	0	$\frac{115}{231}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5}{33}$

continued ...

Table 10

No.	multipole	matrix
963	$\mathbb{M}_{5,-1}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{10\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{115}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{20\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{20\sqrt{30}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{10}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{20\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{65\sqrt{5}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{10\sqrt{6}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{15}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{25\sqrt{15}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{40\sqrt{10}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{65\sqrt{5}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{5\sqrt{10}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{30}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{115}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{40\sqrt{10}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{210}}{231} & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
964	$\mathbb{M}_{5,-2}^{(a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{10}{33}$	0	0	0	0	0	0	0
		$\frac{10\sqrt{21}}{231}$	0	0	0	0	0	0	$\frac{40\sqrt{14}}{231}$	0	0	0	0	0	0
		0	$-\frac{10\sqrt{105}}{231}$	0	0	0	0	0	$-\frac{10\sqrt{42}}{231}$	0	0	0	0	0	0
		0	0	$\frac{10\sqrt{105}}{231}$	0	0	0	0	0	$-\frac{20\sqrt{35}}{231}$	0	0	0	0	0
		0	0	0	$-\frac{10\sqrt{21}}{231}$	0	0	0	0	0	$\frac{50\sqrt{7}}{231}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{10}}{33}$	0	0	0	0	0	0	0
		$\frac{50\sqrt{7}}{231}$	0	0	0	0	0	0	$-\frac{5\sqrt{42}}{77}$	0	0	0	0	0	0
		0	$-\frac{20\sqrt{35}}{231}$	0	0	0	0	0	$-\frac{20\sqrt{14}}{231}$	0	0	0	0	0	0
		0	0	$-\frac{10\sqrt{42}}{231}$	0	0	0	0	0	$\frac{20\sqrt{14}}{231}$	0	0	0	0	0
		0	0	0	$\frac{40\sqrt{14}}{231}$	0	0	0	0	0	$\frac{5\sqrt{42}}{77}$	0	0	0	0
		0	0	0	0	$-\frac{10}{33}$	0	0	0	0	0	$-\frac{5\sqrt{10}}{33}$	0	0	0

continued ...

Table 10

No.	multipole	matrix
965	$\mathbb{M}_{5,-3}^{(a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{3}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{20\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{20\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{20\sqrt{14}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{20}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{25\sqrt{42}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{5\sqrt{14}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{21}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{10\sqrt{3}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20}{33} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
966	$\mathbb{M}_{5,-4}^{(a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{6}}{33}$	0	0	0	0	0	0
		$\frac{10\sqrt{14}}{77}$	0	0	0	0	0	$\frac{10\sqrt{21}}{231}$	0	0	0	0	0
		0	$-\frac{10\sqrt{14}}{77}$	0	0	0	0	0	$\frac{10\sqrt{35}}{77}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{2}}{11}$	0	0	0	0	0	0
		$\frac{10\sqrt{35}}{77}$	0	0	0	0	0	$\frac{5\sqrt{210}}{231}$	0	0	0	0	0
		0	$\frac{10\sqrt{21}}{231}$	0	0	0	0	0	$-\frac{5\sqrt{210}}{231}$	0	0	0	0
		0	0	$-\frac{10\sqrt{6}}{33}$	0	0	0	0	0	0	$-\frac{5\sqrt{2}}{11}$	0	0

continued ...

Table 10

No.	multipole	matrix														
967	$\mathbb{M}_{5,-5}^{(a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{5\sqrt{30}}{33}$	0	0	0	0	0	0	0	0
		$\frac{20\sqrt{7}}{77}$	0	0	0	0	0	0	$-\frac{25\sqrt{42}}{231}$	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{10\sqrt{3}}{33}$	0	0	0	0	0	0	0	0
		$\frac{25\sqrt{42}}{231}$	0	0	0	0	0	0	$\frac{20\sqrt{7}}{77}$	0	0	0	0	0	0	0
<i>continued ...</i>																

Table 10

No.	multipole	matrix													
968	$\mathbb{M}_{1,1}^{(1,-1;a)}$	0	$\frac{\sqrt{10}}{7}$	0	0	0	0	0	$\frac{2}{7}$	0	0	0	0	0	0
		0	0	$\frac{4}{7}$	0	0	0	0	0	$\frac{2\sqrt{3}}{7}$	0	0	0	0	0
		0	0	0	$\frac{3\sqrt{2}}{7}$	0	0	0	0	0	$\frac{2\sqrt{6}}{7}$	0	0	0	0
		0	0	0	0	$\frac{4}{7}$	0	0	0	0	0	$\frac{2\sqrt{10}}{7}$	0	0	0
		0	0	0	0	0	$\frac{\sqrt{10}}{7}$	0	0	0	0	0	$\frac{2\sqrt{15}}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0
		$-\frac{2\sqrt{21}}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{14}}{7}$	0	0	0	0	0	0
		0	$-\frac{2\sqrt{15}}{7}$	0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0
		0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	$-\frac{\sqrt{30}}{7}$	0	0	0	0	0
		0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	$-\frac{4\sqrt{2}}{7}$	0	0	0	0
		0	0	0	0	$-\frac{2\sqrt{3}}{7}$	0	0	0	0	0	$-\frac{\sqrt{30}}{7}$	0	0	0
		0	0	0	0	0	$-\frac{2}{7}$	0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{14}}{7}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
969	$\mathbb{M}_{1,0}^{(1,-1;a)}$	$-\frac{5}{7}$	0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0	0
		0	$-\frac{3}{7}$	0	0	0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	0
		0	0	$-\frac{1}{7}$	0	0	0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0
		0	0	0	$\frac{1}{7}$	0	0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0
		0	0	0	0	$\frac{3}{7}$	0	0	0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0
		0	0	0	0	0	$\frac{5}{7}$	0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0
		0	0	0	0	0	0	1	0	0	0	0	0	0	0
		$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0	$\frac{5}{7}$	0	0	0	0	0	0
		0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	0	$\frac{3}{7}$	0	0	0	0	0
		0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0	0	$\frac{1}{7}$	0	0	0	0
		0	0	0	$-\frac{4\sqrt{3}}{7}$	0	0	0	0	0	$-\frac{1}{7}$	0	0	0	0
		0	0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	$-\frac{3}{7}$	0	0	0
		0	0	0	0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	$-\frac{5}{7}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	-1

continued ...

Table 10

No.	multipole	matrix													
970	$\mathbb{M}_{1,-1}^{(1,-1;a)}$	0	0	0	0	0	0	$\frac{2\sqrt{21}}{7}$	0	0	0	0	0	0	0
		$-\frac{\sqrt{10}}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{15}}{7}$	0	0	0	0	0	0
		0	$-\frac{4}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{10}}{7}$	0	0	0	0	0
		0	0	$-\frac{3\sqrt{2}}{7}$	0	0	0	0	0	$\frac{2\sqrt{6}}{7}$	0	0	0	0	0
		0	0	0	$-\frac{4}{7}$	0	0	0	0	0	$\frac{2\sqrt{3}}{7}$	0	0	0	0
		0	0	0	0	$-\frac{\sqrt{10}}{7}$	0	0	0	0	0	$\frac{2}{7}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{\sqrt{14}}{7}$	0	0	0	0	0	0	0
		$-\frac{2}{7}$	0	0	0	0	0	0	$\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0
		0	$-\frac{2\sqrt{3}}{7}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{7}$	0	0	0	0	0
		0	0	$-\frac{2\sqrt{6}}{7}$	0	0	0	0	0	0	$\frac{4\sqrt{2}}{7}$	0	0	0	0
		0	0	0	$-\frac{2\sqrt{10}}{7}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{7}$	0	0	0
		0	0	0	0	$-\frac{2\sqrt{15}}{7}$	0	0	0	0	0	$\frac{2\sqrt{6}}{7}$	0	0	0
		0	0	0	0	0	$-\frac{2\sqrt{21}}{7}$	0	0	0	0	0	$\frac{\sqrt{14}}{7}$	0	0

continued ...

Table 10

No.	multipole	matrix
971	$\mathbb{M}_{3,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{105} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{105} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{3}}{21} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{15}}{105} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{105}}{105} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix												
972	$\mathbb{M}_{3,2}^{(1,-1;a)}$	0	0	$\frac{2\sqrt{5}}{35}$	0	0	0	0	0	$\frac{16\sqrt{15}}{315}$	0	0	0	
		0	0	0	$\frac{2}{35}$	0	0	0	0	0	$\frac{8\sqrt{3}}{63}$	0	0	0
		0	0	0	0	$-\frac{2}{35}$	0	0	0	0	0	$\frac{4\sqrt{10}}{105}$	0	0
		0	0	0	0	0	$-\frac{2\sqrt{5}}{35}$	0	0	0	0	0	$-\frac{4\sqrt{30}}{315}$	0
		0	0	0	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{105}}{315}$	
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	$-\frac{8\sqrt{105}}{315}$	0	0	0	0	0	$-\frac{\sqrt{42}}{21}$	0	0	0	0	0
		0	0	$-\frac{4\sqrt{30}}{315}$	0	0	0	0	0	$-\frac{3\sqrt{10}}{35}$	0	0	0	0
		0	0	0	$\frac{4\sqrt{10}}{105}$	0	0	0	0	0	$-\frac{2\sqrt{30}}{105}$	0	0	0
		0	0	0	0	$\frac{8\sqrt{3}}{63}$	0	0	0	0	0	$\frac{2\sqrt{30}}{105}$	0	0
		0	0	0	0	0	$\frac{16\sqrt{15}}{315}$	0	0	0	0	0	$\frac{3\sqrt{10}}{35}$	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{42}}{21}$	
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
973	$\mathbb{M}_{3,1}^{(1,-1;a)}$	0	$-\frac{4}{35}$	0	0	0	0	0	$-\frac{8\sqrt{10}}{105}$	0	0	0	0	0	0
		0	0	$\frac{2\sqrt{10}}{175}$	0	0	0	0	0	$-\frac{8\sqrt{30}}{315}$	0	0	0	0	0
		0	0	0	$\frac{8\sqrt{5}}{175}$	0	0	0	0	0	$\frac{4\sqrt{15}}{315}$	0	0	0	0
		0	0	0	0	$\frac{2\sqrt{10}}{175}$	0	0	0	0	0	$\frac{4}{21}$	0	0	0
		0	0	0	0	0	$-\frac{4}{35}$	0	0	0	0	0	$\frac{4\sqrt{6}}{63}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{210}}{315}$	0
		$\frac{4\sqrt{210}}{315}$	0	0	0	0	0	0	$\frac{2\sqrt{35}}{35}$	0	0	0	0	0	0
		0	$-\frac{4\sqrt{6}}{63}$	0	0	0	0	0	$\frac{2\sqrt{15}}{105}$	0	0	0	0	0	0
		0	0	$-\frac{4}{21}$	0	0	0	0	0	$-\frac{2\sqrt{3}}{21}$	0	0	0	0	0
		0	0	0	$-\frac{4\sqrt{15}}{315}$	0	0	0	0	0	$-\frac{4\sqrt{5}}{35}$	0	0	0	0
		0	0	0	0	$\frac{8\sqrt{30}}{315}$	0	0	0	0	0	$-\frac{2\sqrt{3}}{21}$	0	0	0
		0	0	0	0	0	$\frac{8\sqrt{10}}{105}$	0	0	0	0	0	$\frac{2\sqrt{15}}{105}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{35}}{35}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix
974	$\mathbb{M}_{3,0}^{(1,-1;a)}$	$\frac{2\sqrt{15}}{105} \quad 0 \quad \frac{8\sqrt{10}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad -\frac{2\sqrt{15}}{75} \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{8\sqrt{15}}{525} \quad 0 \quad -\frac{8\sqrt{5}}{105} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad \frac{8\sqrt{15}}{525} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{8\sqrt{5}}{105} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad \frac{2\sqrt{15}}{75} \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{2\sqrt{15}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{8\sqrt{10}}{105} \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{15}}{15} \quad 0 \quad 0$
		$\frac{8\sqrt{10}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{\sqrt{15}}{21} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad \frac{\sqrt{15}}{15} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{8\sqrt{5}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{\sqrt{15}}{35} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad -\frac{8\sqrt{5}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{15}}{35} \quad 0 \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad -\frac{\sqrt{15}}{15} \quad 0 \quad 0 \quad 0$
		$0 \quad 0 \quad 0 \quad 0 \quad 0 \quad \frac{8\sqrt{10}}{105} \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad -\frac{\sqrt{15}}{21} \quad 0$
		$0 \quad 0 \quad \frac{\sqrt{15}}{15} \quad 0$

continued ...

Table 10

No.	multipole	matrix														
975	$\mathbb{M}_{3,-1}^{(1,-1;a)}$	0	0	0	0	0	0	$-\frac{4\sqrt{210}}{315}$	0	0	0	0	0	0	0	0
		$\frac{4}{35}$	0	0	0	0	0	0	$\frac{4\sqrt{6}}{63}$	0	0	0	0	0	0	0
		0	$-\frac{2\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{4}{21}$	0	0	0	0	0	0
		0	0	$-\frac{8\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{4\sqrt{15}}{315}$	0	0	0	0	0
		0	0	0	$-\frac{2\sqrt{10}}{175}$	0	0	0	0	0	0	$-\frac{8\sqrt{30}}{315}$	0	0	0	0
		0	0	0	0	$\frac{4}{35}$	0	0	0	0	0	0	$-\frac{8\sqrt{10}}{105}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{2\sqrt{35}}{35}$	0	0	0	0	0	0	0	0
		$\frac{8\sqrt{10}}{105}$	0	0	0	0	0	0	$-\frac{2\sqrt{15}}{105}$	0	0	0	0	0	0	0
		0	$\frac{8\sqrt{30}}{315}$	0	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0	0	0	0
		0	0	$-\frac{4\sqrt{15}}{315}$	0	0	0	0	0	0	$\frac{4\sqrt{5}}{35}$	0	0	0	0	0
		0	0	0	$-\frac{4}{21}$	0	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0	0
		0	0	0	0	$-\frac{4\sqrt{6}}{63}$	0	0	0	0	0	0	$-\frac{2\sqrt{15}}{105}$	0	0	0
		0	0	0	0	0	$\frac{4\sqrt{210}}{315}$	0	0	0	0	0	$-\frac{2\sqrt{35}}{35}$	0	0	0

continued ...

Table 10

No.	multipole	matrix
976	$\mathbb{M}_{3,-2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16\sqrt{15}}{315} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{42}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{16\sqrt{15}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{30}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{3\sqrt{10}}{35} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{8\sqrt{105}}{315} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{42}}{21} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
977	$\mathbb{M}_{3,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{8\sqrt{3}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{2\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{4\sqrt{10}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{30}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{5}}{35} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{15}}{105} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{35}}{105} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{105}}{105} & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
978	$\mathbb{M}_{5,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{33} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{15}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
979	$\mathbb{M}_{5,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & -\frac{\sqrt{70}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{77} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{70}}{231} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{1155} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{165} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{4\sqrt{30}}{165} & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{11} & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{1155} & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{42}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{77} & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{42}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{11} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
980	$\mathbb{M}_{5,3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{2\sqrt{70}}{693} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{10\sqrt{7}}{693} & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{385} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{693} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{385} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{165} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{4\sqrt{15}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{105}}{385} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{385} & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{7}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{35}}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
981	$\mathbb{M}_{5,2}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{\sqrt{105}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{5\sqrt{21}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{7}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{5\sqrt{21}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{210}}{1155} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{105}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16\sqrt{70}}{1155} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{165} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{4\sqrt{5}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{2}}{33} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{16\sqrt{70}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{210}}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{4\sqrt{210}}{1155} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{70}}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{70}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{210}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{2}}{33} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix													
982	$\mathbb{M}_{5,1}^{(1,-1;a)}$	0	$\frac{\sqrt{30}}{693}$	0	0	0	0	0	$\frac{10\sqrt{3}}{231}$	0	0	0	0	0	0
		0	0	$-\frac{10\sqrt{3}}{693}$	0	0	0	0	0	$-\frac{26}{231}$	0	0	0	0	0
		0	0	0	$\frac{10\sqrt{6}}{693}$	0	0	0	0	0	$\frac{2\sqrt{2}}{231}$	0	0	0	0
		0	0	0	0	$-\frac{10\sqrt{3}}{693}$	0	0	0	0	0	$\frac{2\sqrt{30}}{105}$	0	0	0
		0	0	0	0	0	$\frac{\sqrt{30}}{693}$	0	0	0	0	0	$-\frac{46\sqrt{5}}{1155}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{7}}{231}$	0
		$-\frac{2\sqrt{7}}{231}$	0	0	0	0	0	0	$-\frac{5\sqrt{42}}{231}$	0	0	0	0	0	0
		0	$\frac{46\sqrt{5}}{1155}$	0	0	0	0	0	$\frac{40\sqrt{2}}{231}$	0	0	0	0	0	0
		0	0	$-\frac{2\sqrt{30}}{105}$	0	0	0	0	0	$-\frac{\sqrt{10}}{231}$	0	0	0	0	0
		0	0	0	$-\frac{2\sqrt{2}}{231}$	0	0	0	0	0	$-\frac{20\sqrt{6}}{231}$	0	0	0	0
		0	0	0	0	$\frac{26}{231}$	0	0	0	0	0	$-\frac{\sqrt{10}}{231}$	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{3}}{231}$	0	0	0	0	0	$\frac{40\sqrt{2}}{231}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{5\sqrt{42}}{231}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
983	$\mathbb{M}_{5,0}^{(1,-1;a)}$	$-\frac{\sqrt{5}}{693}$	0	0	0	0	0	0	$-\frac{2\sqrt{30}}{231}$	0	0	0	0	0	0
		0	$\frac{5\sqrt{5}}{693}$	0	0	0	0	0	0	$\frac{6\sqrt{2}}{77}$	0	0	0	0	0
		0	0	$-\frac{10\sqrt{5}}{693}$	0	0	0	0	0	$-\frac{4\sqrt{15}}{231}$	0	0	0	0	0
		0	0	0	$\frac{10\sqrt{5}}{693}$	0	0	0	0	0	$-\frac{4\sqrt{15}}{231}$	0	0	0	0
		0	0	0	0	$-\frac{5\sqrt{5}}{693}$	0	0	0	0	0	$\frac{6\sqrt{2}}{77}$	0	0	0
		0	0	0	0	0	$\frac{\sqrt{5}}{693}$	0	0	0	0	0	$-\frac{2\sqrt{30}}{231}$	0	0
		0	0	0	0	0	0	$\frac{\sqrt{5}}{33}$	0	0	0	0	0	0	0
		$-\frac{2\sqrt{30}}{231}$	0	0	0	0	0	0	$-\frac{23\sqrt{5}}{231}$	0	0	0	0	0	0
		0	$\frac{6\sqrt{2}}{77}$	0	0	0	0	0	0	$\frac{17\sqrt{5}}{231}$	0	0	0	0	0
		0	0	$-\frac{4\sqrt{15}}{231}$	0	0	0	0	0	$\frac{5\sqrt{5}}{77}$	0	0	0	0	0
		0	0	0	$-\frac{4\sqrt{15}}{231}$	0	0	0	0	0	$-\frac{5\sqrt{5}}{77}$	0	0	0	0
		0	0	0	0	$\frac{6\sqrt{2}}{77}$	0	0	0	0	0	$-\frac{17\sqrt{5}}{231}$	0	0	0
		0	0	0	0	0	$-\frac{2\sqrt{30}}{231}$	0	0	0	0	0	$\frac{23\sqrt{5}}{231}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{5}}{33}$	0

continued ...

Table 10

No.	multipole	matrix														
984	$\mathbb{M}_{5,-1}^{(1,-1;a)}$	0	0	0	0	0	0	$\frac{2\sqrt{7}}{231}$	0	0	0	0	0	0	0	0
		$-\frac{\sqrt{30}}{693}$	0	0	0	0	0	0	$-\frac{46\sqrt{5}}{1155}$	0	0	0	0	0	0	0
		0	$\frac{10\sqrt{3}}{693}$	0	0	0	0	0	0	$\frac{2\sqrt{30}}{105}$	0	0	0	0	0	0
		0	0	$-\frac{10\sqrt{6}}{693}$	0	0	0	0	0	$\frac{2\sqrt{2}}{231}$	0	0	0	0	0	0
		0	0	0	$\frac{10\sqrt{3}}{693}$	0	0	0	0	0	$-\frac{26}{231}$	0	0	0	0	0
		0	0	0	0	$-\frac{\sqrt{30}}{693}$	0	0	0	0	0	$\frac{10\sqrt{3}}{231}$	0	0	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{42}}{231}$	0	0	0	0	0	0	0	0
		$-\frac{10\sqrt{3}}{231}$	0	0	0	0	0	0	$-\frac{40\sqrt{2}}{231}$	0	0	0	0	0	0	0
		0	$\frac{26}{231}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{231}$	0	0	0	0	0	0
		0	0	$-\frac{2\sqrt{2}}{231}$	0	0	0	0	0	$\frac{20\sqrt{6}}{231}$	0	0	0	0	0	0
		0	0	0	$-\frac{2\sqrt{30}}{105}$	0	0	0	0	0	$\frac{\sqrt{10}}{231}$	0	0	0	0	0
		0	0	0	0	$\frac{46\sqrt{5}}{1155}$	0	0	0	0	0	$-\frac{40\sqrt{2}}{231}$	0	0	0	0
		0	0	0	0	0	$-\frac{2\sqrt{7}}{231}$	0	0	0	0	0	$\frac{5\sqrt{42}}{231}$	0	0	0

continued ...

Table 10

No.	multipole	matrix													
985	$\mathbb{M}_{5,-2}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{4\sqrt{5}}{165}$	0	0	0	0	0	0	0
		$-\frac{\sqrt{105}}{693}$	0	0	0	0	0	0	$-\frac{16\sqrt{70}}{1155}$	0	0	0	0	0	0
		0	$\frac{5\sqrt{21}}{693}$	0	0	0	0	0	$\frac{4\sqrt{210}}{1155}$	0	0	0	0	0	0
		0	0	$-\frac{5\sqrt{21}}{693}$	0	0	0	0	0	$\frac{8\sqrt{7}}{231}$	0	0	0	0	0
		0	0	0	$\frac{\sqrt{105}}{693}$	0	0	0	0	0	0	$-\frac{4\sqrt{35}}{231}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{2}}{33}$	0	0	0	0	0	0	0
		$-\frac{4\sqrt{35}}{231}$	0	0	0	0	0	0	$-\frac{\sqrt{210}}{77}$	0	0	0	0	0	0
		0	$\frac{8\sqrt{7}}{231}$	0	0	0	0	0	$-\frac{4\sqrt{70}}{231}$	0	0	0	0	0	0
		0	0	$\frac{4\sqrt{210}}{1155}$	0	0	0	0	0	$\frac{4\sqrt{70}}{231}$	0	0	0	0	0
		0	0	0	$-\frac{16\sqrt{70}}{1155}$	0	0	0	0	0	$\frac{\sqrt{210}}{77}$	0	0	0	0
		0	0	0	0	$\frac{4\sqrt{5}}{165}$	0	0	0	0	0	$-\frac{5\sqrt{2}}{33}$	0	0	0

continued ...

Table 10

No.	multipole	matrix
986	$\mathbb{M}_{5,-3}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{15}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{70}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{105}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{10\sqrt{7}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{385} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{2\sqrt{70}}{693} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{70}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{4\sqrt{105}}{385} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{4\sqrt{15}}{165} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{5}}{33} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																
987	$\mathbb{M}_{5,-4}^{(1,-1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{30}}{165}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{\sqrt{70}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{105}}{1155}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{70}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{7}}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{4\sqrt{7}}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{5\sqrt{42}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{4\sqrt{105}}{1155}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{5\sqrt{42}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{4\sqrt{30}}{165}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{10}}{11}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{30}}{165}$	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{70}}{231}$	0	0	0	0	0	0	$-\frac{4\sqrt{105}}{1155}$	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{70}}{231}$	0	0	0	0	0	0	$-\frac{4\sqrt{7}}{77}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{10}}{11}$	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{7}}{77}$	0	0	0	0	0	0	$\frac{5\sqrt{42}}{231}$	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{105}}{1155}$	0	0	0	0	0	0	$-\frac{5\sqrt{42}}{231}$	0	0	0	0	0	0	0	0	0	$\frac{4\sqrt{30}}{165}$	0	0	0	0	0	0	$-\frac{\sqrt{10}}{11}$	0	0	0	0	0	0
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continued ...

Table 10

No.	multipole	matrix
988	$\mathbb{M}_{5,-5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{35}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{2\sqrt{210}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{35}}{77} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{2\sqrt{6}}{33} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{33} & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
989	$\mathbb{M}_{7,7}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{462}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
990	$\mathbb{M}_{7,6}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10\sqrt{231}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{231}}{429} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
991	$\mathbb{M}_{7,5}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2002}}{1859} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{70\sqrt{858}}{5577} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2002}}{1859} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
992	$\mathbb{M}_{7,4}^{(1,-1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{30030}}{5577} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{35\sqrt{286}}{1859} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{35\sqrt{286}}{1859} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{30030}}{5577} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix					
993	$\mathbb{M}_{7,3}^{(1,-1;a)}$	0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{2730}}{5577}$
		0	0	0	0	$-\frac{70\sqrt{390}}{5577}$	0
		0	0	0	0	0	$\frac{70\sqrt{78}}{1859}$
		0	0	0	0	0	$-\frac{70\sqrt{390}}{5577}$
		0	0	0	0	0	$\frac{10\sqrt{2730}}{5577}$
		0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix						
994	$\mathbb{M}_{7,2}^{(1,-1;a)}$	0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{91}}{1859}$	0
		0	0	0	0	0	$\frac{70\sqrt{195}}{5577}$	0
		0	0	0	0	0	$-\frac{70\sqrt{65}}{1859}$	0
		0	0	0	0	0	$\frac{70\sqrt{65}}{1859}$	0
		0	0	0	0	0	0	$-\frac{70\sqrt{195}}{5577}$
		0	0	0	0	0	0	$\frac{10\sqrt{91}}{1859}$
		0	0	0	0	0	0	0
		0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix									
995	$\mathbb{M}_{7,1}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{182}}{5577}$	0	0	0	0
		0	0	0	0	0	0	$-\frac{70\sqrt{78}}{5577}$	0	0	0
		0	0	0	0	0	0	$\frac{70\sqrt{390}}{5577}$	0	0	0

continued ...

Table 10

No.	multipole	matrix											
996	$\mathbb{M}_{7,0}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{5\sqrt{91}}{5577}$	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{35\sqrt{91}}{5577}$	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{35\sqrt{91}}{1859}$	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{175\sqrt{91}}{5577}$	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{175\sqrt{91}}{5577}$	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{35\sqrt{91}}{1859}$	0	0
		0	0	0	0	0	0	0	0	0	0	$-\frac{35\sqrt{91}}{5577}$	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{91}}{5577}$

continued ...

Table 10

No.	multipole	matrix											
997	$\mathbb{M}_{7,-1}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{182}}{5577}$	0	0	0	0	0	0
		0	0	0	0	0	$\frac{70\sqrt{78}}{5577}$	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{70\sqrt{390}}{5577}$	0	0	0	0	0
		0	0	0	0	0	0	0	$\frac{350\sqrt{26}}{5577}$	0	0	0	0
		0	0	0	0	0	0	0	0	$-\frac{70\sqrt{390}}{5577}$	0	0	0
		0	0	0	0	0	0	0	0	0	$\frac{70\sqrt{78}}{5577}$	0	0
		0	0	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{182}}{5577}$	0

continued ...

Table 10

No.	multipole	matrix									
998	$\mathbb{M}_{7,-2}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{91}}{1859}$	0	0	0	0
		0	0	0	0	0	$\frac{70\sqrt{195}}{5577}$	0	0	0	0
		0	0	0	0	0	$0 - \frac{70\sqrt{65}}{1859}$	0	0	0	0
		0	0	0	0	0	$0 + \frac{70\sqrt{65}}{1859}$	0	0	0	0
		0	0	0	0	0	$0 - \frac{70\sqrt{195}}{5577}$	0	0	0	0
		0	0	0	0	0	$0 + \frac{10\sqrt{91}}{1859}$	0	0	0	0

continued ...

Table 10

No.	multipole	matrix									
999	$\mathbb{M}_{7,-3}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{2730}}{5577}$	0	0	0	0
		0	0	0	0	0	$\frac{70\sqrt{390}}{5577}$	0	0	0	0
		0	0	0	0	0	$-\frac{70\sqrt{78}}{1859}$	0	0	0	0
		0	0	0	0	0	0	$\frac{70\sqrt{390}}{5577}$	0	0	0
		0	0	0	0	0	0	$-\frac{10\sqrt{2730}}{5577}$	0	0	0

continued ...

Table 10

No.	multipole	matrix									
1000	$\mathbb{M}_{7,-4}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{5\sqrt{30030}}{5577}$	0	0	0	0
		0	0	0	0	0	$\frac{35\sqrt{286}}{1859}$	0	0	0	0
		0	0	0	0	0	$-\frac{35\sqrt{286}}{1859}$	0	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{30030}}{5577}$	0	0	0	0

continued ...

Table 10

No.	multipole	matrix									
1001	$\mathbb{M}_{7,-5}^{(1,-1;a)}$	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{2002}}{1859}$	0	0	0	0
		0	0	0	0	0	$\frac{70\sqrt{858}}{5577}$	0	0	0	0
		0	0	0	0	0	0	$-\frac{10\sqrt{2002}}{1859}$	0	0	0

continued ...

Table 10

continued ...

Table 10

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																										
1004	$\mathbb{M}_{1,1}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>$-\frac{8}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{70}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{16\sqrt{10}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{30}}{70}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{24\sqrt{5}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{15}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{16\sqrt{10}}{175}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{1}{7}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{8}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}}{14}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{210}}{70}$</td><td>0</td></tr> <tr><td>$-\frac{\sqrt{210}}{70}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{35}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{6}}{14}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{1}{7}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{3}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{15}}{35}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{5}}{105}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{30}}{70}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{3}}{21}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{10}}{70}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{105}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{35}}{105}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$-\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{70}$	0	0	0	0	0	0	0	0	$-\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{70}$	0	0	0	0	0	0	0	0	$-\frac{24\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{15}}{35}$	0	0	0	0	0	0	0	0	$-\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{1}{7}$	0	0	0	0	0	0	0	0	$-\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{6}}{14}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{210}}{70}$	0	$-\frac{\sqrt{210}}{70}$	0	0	0	0	0	$\frac{2\sqrt{35}}{105}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{6}}{14}$	0	0	0	0	0	$\frac{4\sqrt{15}}{105}$	0	0	0	0	0	0	0	0	$-\frac{1}{7}$	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	$\frac{8\sqrt{5}}{105}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{30}}{70}$	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{10}}{70}$	0	0	0	0	0	$\frac{4\sqrt{15}}{105}$	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{35}}{105}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	$-\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{70}$	0	0	0	0	0	0																																																																																																																																																																																														
0	0	$-\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{70}$	0	0	0	0	0																																																																																																																																																																																														
0	0	0	$-\frac{24\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{15}}{35}$	0	0	0	0																																																																																																																																																																																														
0	0	0	0	$-\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{1}{7}$	0	0	0																																																																																																																																																																																														
0	0	0	0	0	$-\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{6}}{14}$	0	0																																																																																																																																																																																														
0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{210}}{70}$	0																																																																																																																																																																																														
$-\frac{\sqrt{210}}{70}$	0	0	0	0	0	$\frac{2\sqrt{35}}{105}$	0	0	0	0	0	0	0																																																																																																																																																																																															
0	$-\frac{\sqrt{6}}{14}$	0	0	0	0	0	$\frac{4\sqrt{15}}{105}$	0	0	0	0	0	0																																																																																																																																																																																															
0	0	$-\frac{1}{7}$	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0	0	0																																																																																																																																																																																															
0	0	0	$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	$\frac{8\sqrt{5}}{105}$	0	0	0	0																																																																																																																																																																																															
0	0	0	0	$-\frac{\sqrt{30}}{70}$	0	0	0	0	0	$\frac{2\sqrt{3}}{21}$	0	0	0																																																																																																																																																																																															
0	0	0	0	0	$-\frac{\sqrt{10}}{70}$	0	0	0	0	0	$\frac{4\sqrt{15}}{105}$	0	0																																																																																																																																																																																															
0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{35}}{105}$	0	0																																																																																																																																																																																															
0	0	0	0	0	0	0	0	0	0	0	0	0	0																																																																																																																																																																																															

continued ...

Table 10

No.	multipole	matrix													
1005	$\mathbb{M}_{1,0}^{(1,1;a)}$	$\frac{4\sqrt{10}}{35}$	0	0	0	0	0	0	$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	0
		0	$\frac{12\sqrt{10}}{175}$	0	0	0	0	0	0	$-\frac{1}{7}$	0	0	0	0	0
		0	0	$\frac{4\sqrt{10}}{175}$	0	0	0	0	0	$-\frac{\sqrt{30}}{35}$	0	0	0	0	0
		0	0	0	$-\frac{4\sqrt{10}}{175}$	0	0	0	0	0	$-\frac{\sqrt{30}}{35}$	0	0	0	0
		0	0	0	0	$-\frac{12\sqrt{10}}{175}$	0	0	0	0	0	$-\frac{1}{7}$	0	0	0
		0	0	0	0	0	$-\frac{4\sqrt{10}}{35}$	0	0	0	0	0	$-\frac{\sqrt{15}}{35}$	0	0
		0	0	0	0	0	0	$-\frac{\sqrt{10}}{15}$	0	0	0	0	0	0	0
		$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	0	$-\frac{\sqrt{10}}{21}$	0	0	0	0	0	0
		0	$-\frac{1}{7}$	0	0	0	0	0	0	$-\frac{\sqrt{10}}{35}$	0	0	0	0	0
		0	0	$-\frac{\sqrt{30}}{35}$	0	0	0	0	0	$-\frac{\sqrt{10}}{105}$	0	0	0	0	0
		0	0	0	$-\frac{\sqrt{30}}{35}$	0	0	0	0	0	$\frac{\sqrt{10}}{105}$	0	0	0	0
		0	0	0	0	$-\frac{1}{7}$	0	0	0	0	0	$\frac{\sqrt{10}}{35}$	0	0	0
		0	0	0	0	0	$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	$\frac{\sqrt{10}}{21}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{\sqrt{10}}{15}$	0	0

continued ...

Table 10

No.	multipole	matrix													
1006	$\mathbb{M}_{1,-1}^{(1,1;a)}$	0	0	0	0	0	0	$\frac{\sqrt{210}}{70}$	0	0	0	0	0	0	0
		$\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{6}}{14}$	0	0	0	0	0	0
		0	$\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{1}{7}$	0	0	0	0	0
		0	0	$\frac{24\sqrt{5}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{15}}{35}$	0	0	0	0
		0	0	0	$\frac{16\sqrt{10}}{175}$	0	0	0	0	0	0	$\frac{\sqrt{30}}{70}$	0	0	0
		0	0	0	0	$\frac{8}{35}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{70}$	0	0
		0	0	0	0	0	0	$-\frac{2\sqrt{35}}{105}$	0	0	0	0	0	0	0
		$-\frac{\sqrt{10}}{70}$	0	0	0	0	0	0	$-\frac{4\sqrt{15}}{105}$	0	0	0	0	0	0
		0	$-\frac{\sqrt{30}}{70}$	0	0	0	0	0	0	$-\frac{2\sqrt{3}}{21}$	0	0	0	0	0
		0	0	$-\frac{\sqrt{15}}{35}$	0	0	0	0	0	0	$-\frac{8\sqrt{5}}{105}$	0	0	0	0
		0	0	0	$-\frac{1}{7}$	0	0	0	0	0	0	$-\frac{2\sqrt{3}}{21}$	0	0	0
		0	0	0	0	$-\frac{\sqrt{6}}{14}$	0	0	0	0	0	0	$-\frac{4\sqrt{15}}{105}$	0	0
		0	0	0	0	0	$-\frac{\sqrt{210}}{70}$	0	0	0	0	0	0	$-\frac{2\sqrt{35}}{105}$	0

continued ...

Table 10

No.	multipole	matrix
1007	$\mathbb{M}_{3,3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & \frac{10\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{42} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{8\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{14} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{42} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{21}}{42} & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{5}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{16}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{7}}{231} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
1008	$\mathbb{M}_{3,2}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & -\frac{10\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{2\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{2\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{42} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{42} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{7}}{21} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{\sqrt{7}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{70}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{\sqrt{2}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2\sqrt{6}}{77} & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{2}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sqrt{5}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{2}}{231} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{2}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{6}}{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2\sqrt{70}}{231} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																			
1009	$\mathbb{M}_{3,1}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>$\frac{4\sqrt{15}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{6}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{2\sqrt{6}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{2}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{8\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{1}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{6}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{15}}{42}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{15}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{10}}{42}$</td><td>0</td><td>0</td></tr> <tr><td>$\frac{\sqrt{14}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{21}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{\sqrt{10}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$-\frac{\sqrt{15}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{5}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{1}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{8\sqrt{3}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{2}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{5}}{231}$</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4}{231}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{21}}{231}$</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	$\frac{4\sqrt{15}}{63}$	0	0	0	0	0	0	$-\frac{\sqrt{6}}{21}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{6}}{63}$	0	0	0	0	0	0	$-\frac{\sqrt{2}}{21}$	0	0	0	0	0	0	0	0	$-\frac{8\sqrt{3}}{63}$	0	0	0	0	0	0	$\frac{1}{42}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{6}}{63}$	0	0	0	0	0	0	$\frac{\sqrt{15}}{42}$	0	0	0	0	0	0	0	0	$\frac{4\sqrt{15}}{63}$	0	0	0	0	0	0	$\frac{\sqrt{10}}{42}$	0	0	$\frac{\sqrt{14}}{42}$	0	0	0	0	0	0	0	$-\frac{4\sqrt{21}}{231}$	0	0	0	0	0	0	0	$-\frac{\sqrt{10}}{42}$	0	0	0	0	0	0	$-\frac{4}{231}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{15}}{42}$	0	0	0	0	0	0	$\frac{4\sqrt{5}}{231}$	0	0	0	0	0	0	0	0	$-\frac{1}{42}$	0	0	0	0	0	0	$\frac{8\sqrt{3}}{231}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{2}}{21}$	0	0	0	0	0	0	$\frac{4\sqrt{5}}{231}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{6}}{21}$	0	0	0	0	0	0	$-\frac{4}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{4\sqrt{21}}{231}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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continued ...

Table 10

No.	multipole	matrix
1010	$\mathbb{M}_{3,0}^{(1,1;a)}$	$\begin{pmatrix} -\frac{10}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{8}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{2}{9} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{10}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{10}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{33} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & -\frac{2}{77} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{3}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{77} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{2}{33} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10}{231} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{2}{33} \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
1011	$\mathbb{M}_{3,-1}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{14}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{10}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{2\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{15}}{42} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{8\sqrt{3}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{2\sqrt{6}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{4\sqrt{15}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{21} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{2}}{21} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{231} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{1}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{8\sqrt{3}}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\frac{\sqrt{15}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{4\sqrt{5}}{231} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -\frac{\sqrt{10}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4}{231} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sqrt{14}}{42} & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{21}}{231} & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix																																																																																																																																																																																																																		
1012	$\mathbb{M}_{3,-2}^{(1,1;a)}$	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{7}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$-\frac{10\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{2}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$-\frac{2\sqrt{15}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{6}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{2\sqrt{15}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{\sqrt{5}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$\frac{10\sqrt{3}}{63}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{70}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>$\frac{2}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{2\sqrt{6}}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>$\frac{\sqrt{5}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$\frac{4\sqrt{2}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>$\frac{\sqrt{6}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{4\sqrt{2}}{231}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{2}}{42}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{6}}{77}$</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{\sqrt{7}}{21}$</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>$-\frac{2\sqrt{70}}{231}$</td><td>0</td><td>0</td><td>0</td></tr> </table>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$-\frac{\sqrt{7}}{21}$	0	0	0	0	0	0	0	0	$-\frac{10\sqrt{3}}{63}$	0	0	0	0	0	0	$-\frac{\sqrt{2}}{42}$	0	0	0	0	0	0	0	0	$-\frac{2\sqrt{15}}{63}$	0	0	0	0	0	0	$\frac{\sqrt{6}}{42}$	0	0	0	0	0	0	0	0	$\frac{2\sqrt{15}}{63}$	0	0	0	0	0	0	$\frac{\sqrt{5}}{21}$	0	0	0	0	0	0	0	0	$\frac{10\sqrt{3}}{63}$	0	0	0	0	0	0	$\frac{2}{21}$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$\frac{2\sqrt{70}}{231}$	0	0	0	0	0	0	0	0	$\frac{2}{21}$	0	0	0	0	0	0	$\frac{2\sqrt{6}}{77}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{5}}{21}$	0	0	0	0	0	0	$\frac{4\sqrt{2}}{231}$	0	0	0	0	0	0	0	0	$\frac{\sqrt{6}}{42}$	0	0	0	0	0	0	$-\frac{4\sqrt{2}}{231}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{2}}{42}$	0	0	0	0	0	0	$-\frac{2\sqrt{6}}{77}$	0	0	0	0	0	0	0	0	$-\frac{\sqrt{7}}{21}$	0	0	0	0	0	0	$-\frac{2\sqrt{70}}{231}$	0	0	0
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continued ...

Table 10

No.	multipole	matrix
1013	$\mathbb{M}_{3,-3}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{21}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\frac{10\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -\frac{8\sqrt{5}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -\frac{10\sqrt{2}}{63} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \frac{\sqrt{6}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sqrt{2}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{8\sqrt{5}}{231} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sqrt{3}}{14} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{16}{231} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sqrt{21}}{42} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{4\sqrt{7}}{231} & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix
1014	$\mathbb{M}_{5,5}^{(1,1;a)}$	$\begin{pmatrix} 0 & 0 & 0 & 0 & 0 & -\frac{20\sqrt{546}}{1001} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{25\sqrt{91}}{3003} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{5\sqrt{65}}{429} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & -\frac{5\sqrt{65}}{429} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{26}}{1859} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -\frac{25\sqrt{91}}{3003} & 0 & 0 & 0 & 0 & 0 & 0 & \frac{20\sqrt{546}}{13013} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{10\sqrt{26}}{1859} \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix}$

continued ...

Table 10

No.	multipole	matrix											
1015	$\mathbb{M}_{5,4}^{(1,1;a)}$	0	0	0	0	$\frac{20\sqrt{273}}{1001}$	0	0	0	0	0	$-\frac{5\sqrt{2730}}{3003}$	0
		0	0	0	0	0	$-\frac{20\sqrt{273}}{1001}$	0	0	0	0	0	$-\frac{5\sqrt{182}}{3003}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{13}}{429}$
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	$\frac{10\sqrt{13}}{429}$	0	0	0	0	0	$-\frac{10\sqrt{39}}{1859}$	0	0
		0	0	0	0	$-\frac{5\sqrt{182}}{3003}$	0	0	0	0	0	$-\frac{10\sqrt{455}}{13013}$	0
		0	0	0	0	0	$-\frac{5\sqrt{2730}}{3003}$	0	0	0	0	0	$\frac{10\sqrt{455}}{13013}$
		0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{39}}{1859}$
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix													
1016	$\mathbb{M}_{5,3}^{(1,1;a)}$	0	0	0	$-\frac{40\sqrt{273}}{3003}$	0	0	0	0	0	$\frac{25\sqrt{91}}{3003}$	0	0	0	0
		0	0	0	0	$\frac{20\sqrt{2730}}{3003}$	0	0	0	0	0	$-\frac{5\sqrt{273}}{3003}$	0	0	0
		0	0	0	0	0	$-\frac{40\sqrt{273}}{3003}$	0	0	0	0	0	$-\frac{5\sqrt{182}}{1001}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{26}}{429}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	$-\frac{5\sqrt{26}}{429}$	0	0	0	0	0	0	$\frac{20\sqrt{78}}{5577}$	0	0	0	0
		0	0	0	$\frac{5\sqrt{182}}{1001}$	0	0	0	0	0	$-\frac{10\sqrt{546}}{39039}$	0	0	0	0
		0	0	0	0	$\frac{5\sqrt{273}}{3003}$	0	0	0	0	0	$-\frac{20\sqrt{2730}}{39039}$	0	0	0
		0	0	0	0	0	$-\frac{25\sqrt{91}}{3003}$	0	0	0	0	0	$-\frac{10\sqrt{546}}{39039}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{20\sqrt{78}}{5577}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

No.	multipole	matrix												
1017	$\mathbb{M}_{5,2}^{(1,1;a)}$	0	0	$\frac{10\sqrt{182}}{1001}$	0	0	0	0	0	$-\frac{25\sqrt{546}}{9009}$	0	0	0	0
		0	0	0	$-\frac{10\sqrt{910}}{1001}$	0	0	0	0	0	$\frac{10\sqrt{2730}}{9009}$	0	0	0
		0	0	0	0	$\frac{10\sqrt{910}}{1001}$	0	0	0	0	0	$\frac{10\sqrt{91}}{3003}$	0	0
		0	0	0	0	0	$-\frac{10\sqrt{182}}{1001}$	0	0	0	0	0	$-\frac{40\sqrt{273}}{9009}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{78}}{1287}$
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	$\frac{5\sqrt{78}}{1287}$	0	0	0	0	0	$-\frac{10\sqrt{195}}{5577}$	0	0	0	0	0
		0	0	$-\frac{40\sqrt{273}}{9009}$	0	0	0	0	0	$\frac{30\sqrt{91}}{13013}$	0	0	0	0
		0	0	0	$\frac{10\sqrt{91}}{3003}$	0	0	0	0	0	$\frac{40\sqrt{273}}{39039}$	0	0	0
		0	0	0	0	$\frac{10\sqrt{2730}}{9009}$	0	0	0	0	0	$-\frac{40\sqrt{273}}{39039}$	0	0
		0	0	0	0	0	$-\frac{25\sqrt{546}}{9009}$	0	0	0	0	0	$-\frac{30\sqrt{91}}{13013}$	0
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{195}}{5577}$
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0

continued ...

Table 10

		matrix													
No.	multipole	0	$-\frac{20\sqrt{13}}{1001}$	0	0	0	0	0	$\frac{25\sqrt{130}}{6006}$	0	0	0	0	0	
1018	$M_{5,1}^{(1,1;a)}$	0	0	$\frac{20\sqrt{130}}{1001}$	0	0	0	0	0	$-\frac{5\sqrt{390}}{1386}$	0	0	0	0	
		0	0	0	$-\frac{40\sqrt{65}}{1001}$	0	0	0	0	0	$\frac{5\sqrt{195}}{9009}$	0	0	0	
		0	0	0	0	$\frac{20\sqrt{130}}{1001}$	0	0	0	0	0	$\frac{5\sqrt{13}}{273}$	0	0	
		0	0	0	0	0	$-\frac{20\sqrt{13}}{1001}$	0	0	0	0	0	$-\frac{115\sqrt{78}}{18018}$	0	
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{2730}}{18018}$	
		$-\frac{5\sqrt{2730}}{18018}$	0	0	0	0	0	0	$\frac{10\sqrt{455}}{13013}$	0	0	0	0	0	
		0	$\frac{115\sqrt{78}}{18018}$	0	0	0	0	0	$-\frac{80\sqrt{195}}{39039}$	0	0	0	0	0	
		0	0	$-\frac{5\sqrt{13}}{273}$	0	0	0	0	0	$\frac{10\sqrt{39}}{39039}$	0	0	0	0	
		0	0	0	$-\frac{5\sqrt{195}}{9009}$	0	0	0	0	0	$\frac{40\sqrt{65}}{13013}$	0	0	0	
		0	0	0	0	$\frac{5\sqrt{390}}{1386}$	0	0	0	0	0	$\frac{10\sqrt{39}}{39039}$	0	0	
		0	0	0	0	0	$-\frac{25\sqrt{130}}{6006}$	0	0	0	0	0	$-\frac{80\sqrt{195}}{39039}$	0	
		0	0	0	0	0	0	0	0	0	0	0	0	$\frac{10\sqrt{455}}{13013}$	
		0	0	0	0	0	0	0	0	0	0	0	0	0	

continued ...

Table 10

No.	multipole	matrix													
1019	$M_{5,0}^{(1,1;a)}$	$\frac{10\sqrt{78}}{3003}$	0	0	0	0	0	0	$-\frac{25\sqrt{13}}{3003}$	0	0	0	0	0	0
		0	$-\frac{50\sqrt{78}}{3003}$	0	0	0	0	0	0	$\frac{5\sqrt{195}}{1001}$	0	0	0	0	0
		0	0	$\frac{100\sqrt{78}}{3003}$	0	0	0	0	0	$-\frac{25\sqrt{26}}{3003}$	0	0	0	0	0
		0	0	0	$-\frac{100\sqrt{78}}{3003}$	0	0	0	0	0	$-\frac{25\sqrt{26}}{3003}$	0	0	0	0
		0	0	0	0	$\frac{50\sqrt{78}}{3003}$	0	0	0	0	0	$\frac{5\sqrt{195}}{1001}$	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{78}}{3003}$	0	0	0	0	0	$-\frac{25\sqrt{13}}{3003}$	0	0
		0	0	0	0	0	0	$-\frac{5\sqrt{78}}{5577}$	0	0	0	0	0	0	0
		$-\frac{25\sqrt{13}}{3003}$	0	0	0	0	0	0	$\frac{115\sqrt{78}}{39039}$	0	0	0	0	0	0
		0	$\frac{5\sqrt{195}}{1001}$	0	0	0	0	0	0	$-\frac{85\sqrt{78}}{39039}$	0	0	0	0	0
		0	0	$-\frac{25\sqrt{26}}{3003}$	0	0	0	0	0	$-\frac{25\sqrt{78}}{13013}$	0	0	0	0	0
		0	0	0	$-\frac{25\sqrt{26}}{3003}$	0	0	0	0	0	$\frac{25\sqrt{78}}{13013}$	0	0	0	0
		0	0	0	0	$\frac{5\sqrt{195}}{1001}$	0	0	0	0	0	$\frac{85\sqrt{78}}{39039}$	0	0	0
		0	0	0	0	0	$-\frac{25\sqrt{13}}{3003}$	0	0	0	0	0	$-\frac{115\sqrt{78}}{39039}$	0	0
		0	0	0	0	0	0	0	0	0	0	0	$\frac{5\sqrt{78}}{5577}$	0	0

continued ...

Table 10

No.	multipole	matrix														
1020	$M_{5,-1}^{(1,1;a)}$	0	0	0	0	0	0	$\frac{5\sqrt{2730}}{18018}$	0	0	0	0	0	0	0	0
		$\frac{20\sqrt{13}}{1001}$	0	0	0	0	0	0	$-\frac{115\sqrt{78}}{18018}$	0	0	0	0	0	0	0
		0	$-\frac{20\sqrt{130}}{1001}$	0	0	0	0	0	0	$\frac{5\sqrt{13}}{273}$	0	0	0	0	0	0
		0	0	$\frac{40\sqrt{65}}{1001}$	0	0	0	0	0	0	$\frac{5\sqrt{195}}{9009}$	0	0	0	0	0
		0	0	0	$-\frac{20\sqrt{130}}{1001}$	0	0	0	0	0	0	$-\frac{5\sqrt{390}}{1386}$	0	0	0	0
		0	0	0	0	$\frac{20\sqrt{13}}{1001}$	0	0	0	0	0	$\frac{25\sqrt{130}}{6006}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$-\frac{10\sqrt{455}}{13013}$	0	0	0	0	0	0	0	0
		$-\frac{25\sqrt{130}}{6006}$	0	0	0	0	0	0	$\frac{80\sqrt{195}}{39039}$	0	0	0	0	0	0	0
		0	$\frac{5\sqrt{390}}{1386}$	0	0	0	0	0	0	$-\frac{10\sqrt{39}}{39039}$	0	0	0	0	0	0
		0	0	$-\frac{5\sqrt{195}}{9009}$	0	0	0	0	0	0	$-\frac{40\sqrt{65}}{13013}$	0	0	0	0	0
		0	0	0	$-\frac{5\sqrt{13}}{273}$	0	0	0	0	0	0	$-\frac{10\sqrt{39}}{39039}$	0	0	0	0
		0	0	0	0	$\frac{115\sqrt{78}}{18018}$	0	0	0	0	0	0	$\frac{80\sqrt{195}}{39039}$	0	0	0
		0	0	0	0	0	$-\frac{5\sqrt{2730}}{18018}$	0	0	0	0	0	0	$-\frac{10\sqrt{455}}{13013}$	0	0

continued ...

Table 10

No.	multipole	matrix												
1021	$\mathbb{M}_{5,-2}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	$\frac{5\sqrt{78}}{1287}$	0	0	0	0	0	0
		$\frac{10\sqrt{182}}{1001}$	0	0	0	0	0	0	$-\frac{40\sqrt{273}}{9009}$	0	0	0	0	0
		0	$-\frac{10\sqrt{910}}{1001}$	0	0	0	0	0	$\frac{10\sqrt{91}}{3003}$	0	0	0	0	0
		0	0	$\frac{10\sqrt{910}}{1001}$	0	0	0	0	0	$\frac{10\sqrt{2730}}{9009}$	0	0	0	0
		0	0	0	$-\frac{10\sqrt{182}}{1001}$	0	0	0	0	0	$-\frac{25\sqrt{546}}{9009}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		$-\frac{25\sqrt{546}}{9009}$	0	0	0	0	0	$\frac{30\sqrt{91}}{13013}$	0	0	0	0	0	0
		0	$\frac{10\sqrt{2730}}{9009}$	0	0	0	0	0	$\frac{40\sqrt{273}}{39039}$	0	0	0	0	0
		0	0	$\frac{10\sqrt{91}}{3003}$	0	0	0	0	0	$-\frac{40\sqrt{273}}{39039}$	0	0	0	0
		0	0	0	$-\frac{40\sqrt{273}}{9009}$	0	0	0	0	0	$-\frac{30\sqrt{91}}{13013}$	0	0	0
		0	0	0	0	$\frac{5\sqrt{78}}{1287}$	0	0	0	0	0	$\frac{10\sqrt{195}}{5577}$	0	0

continued ...

Table 10

No.	multipole	matrix											
1022	$\mathbb{M}_{5,-3}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{26}}{429}$	0	0	0	0	0	0
		$\frac{40\sqrt{273}}{3003}$	0	0	0	0	0	$-\frac{5\sqrt{182}}{1001}$	0	0	0	0	0
		0	$-\frac{20\sqrt{2730}}{3003}$	0	0	0	0	0	$-\frac{5\sqrt{273}}{3003}$	0	0	0	0
		0	0	$\frac{40\sqrt{273}}{3003}$	0	0	0	0	0	$\frac{25\sqrt{91}}{3003}$	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{20\sqrt{78}}{5577}$	0	0	0	0	0	0
		$-\frac{25\sqrt{91}}{3003}$	0	0	0	0	0	$\frac{10\sqrt{546}}{39039}$	0	0	0	0	0
		0	$\frac{5\sqrt{273}}{3003}$	0	0	0	0	0	$\frac{20\sqrt{2730}}{39039}$	0	0	0	0
		0	0	$\frac{5\sqrt{182}}{1001}$	0	0	0	0	0	$\frac{10\sqrt{546}}{39039}$	0	0	0
		0	0	0	$-\frac{5\sqrt{26}}{429}$	0	0	0	0	0	$-\frac{20\sqrt{78}}{5577}$	0	0

continued ...

Table 10

No.	multipole	matrix											
1023	$\mathbb{M}_{5,-4}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{10\sqrt{13}}{429}$	0	0	0	0	0	0
		$\frac{20\sqrt{273}}{1001}$	0	0	0	0	0	$-\frac{5\sqrt{182}}{3003}$	0	0	0	0	0
		0	$-\frac{20\sqrt{273}}{1001}$	0	0	0	0	0	$-\frac{5\sqrt{2730}}{3003}$	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{39}}{1859}$	0	0	0	0	0	0
		$-\frac{5\sqrt{2730}}{3003}$	0	0	0	0	0	$-\frac{10\sqrt{455}}{13013}$	0	0	0	0	0
		0	$-\frac{5\sqrt{182}}{3003}$	0	0	0	0	0	$\frac{10\sqrt{455}}{13013}$	0	0	0	0
		0	0	$\frac{10\sqrt{13}}{429}$	0	0	0	0	0	$\frac{10\sqrt{39}}{1859}$	0	0	0

continued ...

Table 10

No.	multipole	matrix											
1024	$\mathbb{M}_{5,-5}^{(1,1;a)}$	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$\frac{5\sqrt{65}}{429}$	0	0	0	0	0	0
		$\frac{20\sqrt{546}}{1001}$	0	0	0	0	0	$\frac{25\sqrt{91}}{3003}$	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	$-\frac{10\sqrt{26}}{1859}$	0	0	0	0	0	0
		$-\frac{25\sqrt{91}}{3003}$	0	0	0	0	0	$-\frac{20\sqrt{546}}{13013}$	0	0	0	0	0
		0	$-\frac{5\sqrt{65}}{429}$	0	0	0	0	0	$-\frac{10\sqrt{26}}{1859}$	0	0	0	0