

MSG No. 227.129 $Fd\bar{3}m1'$ [Type II, cubic]

* symmetry operation

Table 1: Symmetry operations for 3d polar vector.

No.	tag	matrix (polar)	det	TR
1	{1 0}	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	1
2	{4 ⁺ ₁₀₀ $\frac{1}{4}0\frac{1}{4}$ }	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
3	{4 ⁻ ₁₀₀ $\frac{1}{4}\frac{1}{4}0$ }	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	1
4	{4 ⁺ ₀₁₀ $\frac{1}{4}\frac{1}{4}0$ }	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	1
5	{4 ⁻ ₀₁₀ $0\frac{1}{4}\frac{1}{4}$ }	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
6	{4 ⁺ ₀₀₁ $0\frac{1}{4}\frac{1}{4}$ }	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	1
7	{4 ⁻ ₀₀₁ $\frac{1}{4}0\frac{1}{4}$ }	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	1
8	{2 ₁₀₀ $0\frac{1}{4}\frac{1}{4}$ }	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	1
9	{2 ₀₁₀ $\frac{1}{4}0\frac{1}{4}$ }	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	1
10	{2 ₀₀₁ $\frac{1}{4}\frac{1}{4}0$ }	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	1
11	{2 ₁₁₀ $\frac{1}{4}\frac{1}{4}0$ }	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	1
12	{2 ₁₋₁₀ 0}	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	1
13	{2 ₀₁₁ $0\frac{1}{4}\frac{1}{4}$ }	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
14	$\{2_{01-1} 0\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	1
15	$\{2_{101} \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
16	$\{2_{-101} 0\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	1
17	$\{3^+_{111} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	1
18	$\{3^-_{111} 0\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	1
19	$\{3^-_{1-1-1} \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
20	$\{3^+_{1-1-1} \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	1
21	$\{3^-_{-11-1} \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	1
22	$\{3^+_{-11-1} 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
23	$\{3^-_{-1-11} 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
24	$\{3^+_{-1-11} \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
25	$\{-1 0\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	1
26	$\{-4^+_{100} \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
27	$\{-4^-_{100} \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
28	$\{-4^+_0 0_{10} 0_{\frac{1}{4}\frac{1}{4}0}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
29	$\{-4^-_0 0_{\frac{1}{4}\frac{1}{4}}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
30	$\{-4^+_{001} 0_{\frac{1}{4}\frac{1}{4}}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	1
31	$\{-4^-_{001} 0_{\frac{1}{4}0\frac{1}{4}}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	1
32	$\{\text{m}_{100} 0_{\frac{1}{4}\frac{1}{4}}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	1
33	$\{\text{m}_{010} 0_{\frac{1}{4}0\frac{1}{4}}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	1
34	$\{\text{m}_{001} 0_{\frac{1}{4}\frac{1}{4}0}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	1
35	$\{\text{m}_{110} 0_{\frac{1}{4}\frac{1}{4}0}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	1
36	$\{\text{m}_{1-10} 0\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	1
37	$\{\text{m}_{011} 0_{\frac{1}{4}\frac{1}{4}}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
38	$\{\text{m}_{01-1} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	1
39	$\{\text{m}_{101} 0_{\frac{1}{4}0\frac{1}{4}}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
40	$\{\text{m}_{-101} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
41	$\{-3^+_{111} 0\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
42	$\{-3_{111}^- 0\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
43	$\{-3_{-1-1-1}^- \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
44	$\{-3_{1-1-1}^+ \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	1
45	$\{-3_{-11-1}^- \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
46	$\{-3_{-11-1}^+ 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
47	$\{-3_{-1-11}^- 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
48	$\{-3_{-1-11}^+ \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
49	$\{1 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	1
50	$\{4_{100}^+ \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
51	$\{4_{100}^- \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
52	$\{4_{010}^+ \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
53	$\{4_{010}^- 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
54	$\{4_{001}^+ 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	1
55	$\{4_{001}^- \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
56	$\{2_{100} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	1
57	$\{2_{010} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	1
58	$\{2_{001} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	1
59	$\{2_{110} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	1
60	$\{2_{1-10} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	1
61	$\{2_{011} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
62	$\{2_{01-1} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
63	$\{2_{101} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
64	$\{2_{-101} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
65	$\{3^+_{111} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
66	$\{3^-_{111} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
67	$\{3^-_{1-1-1} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
68	$\{3^+_{1-1-1} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
69	$\{3^-_{-11-1} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
70	$\{3^+_{-11-1} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
71	$\{3^-_{-1-11} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
72	$\{3^+_{-1-11} 1\frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
73	$\{-1 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	1
74	$\{-4^+_{100} 1\frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
75	$\{-4^-_{100} 1\frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
76	$\{-4^+_{010} 1\frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
77	$\{-4^-_{010} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
78	$\{-4^+_{001} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	1
79	$\{-4^-_{001} 1\frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	1
80	$\{\text{m}_{100} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	1
81	$\{\text{m}_{010} 1\frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	1
82	$\{\text{m}_{001} 1\frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	1
83	$\{\text{m}_{110} 1\frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
84	$\{m_{1-10} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	1
85	$\{m_{011} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
86	$\{m_{01-1} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
87	$\{m_{101} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
88	$\{m_{-101} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
89	$\{-3^+_{111} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
90	$\{-3^-_{111} 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
91	$\{-3^-_{1-1-1} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
92	$\{-3^+_{1-1-1} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
93	$\{-3^-_{-11-1} \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
94	$\{-3^+_{-11-1} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
95	$\{-3^-_{-1-11} 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
96	$\{-3^+_{-1-11} \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
97	$\{1 \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
98	$\{4_{100}^+ \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
99	$\{4_{100}^- \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
100	$\{4_{010}^+ \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
101	$\{4_{010}^- \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
102	$\{4_{001}^+ \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	1
103	$\{4_{001}^- \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	1
104	$\{2_{100} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	1
105	$\{2_{010} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	1
106	$\{2_{001} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	1
107	$\{2_{110} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	1
108	$\{2_{1-10} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	1
109	$\{2_{011} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
110	$\{2_{01-1} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
111	$\{2_{101} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
112	$\{2_{-101} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
113	$\{3^+_{111} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
114	$\{3^-_{111} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
115	$\{3^-_{1-1-1} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
116	$\{3^+_{1-1-1} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
117	$\{3^-_{-11-1} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	1
118	$\{3^+_{-11-1} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
119	$\{3^-_{-1-11} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
120	$\{3^+_{-1-11} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	1
121	$\{-1 \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	1
122	$\{-4^+_{100} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
123	$\{-4^-_{100} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
124	$\{-4^+_{010} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
125	$\{-4^-_{010} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
126	$\{-4^+_{001} \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	1
127	$\{-4^-_{001} \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	1
128	$\{\text{m}_{100} \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	1
129	$\{\text{m}_{010} \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	1
130	$\{\text{m}_{001} \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	1
131	$\{\text{m}_{110} \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	1
132	$\{\text{m}_{1-10} \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	1
133	$\{\text{m}_{011} \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
134	$\{\text{m}_{01-1} \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
135	$\{\text{m}_{101} \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
136	$\{\text{m}_{-101} \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
137	$\{-3^+_{111} \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
138	$\{-3^-_{111} \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
139	$\{-3^-_{1-1-1} \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
140	$\{-3_{1-1-1}^+ \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
141	$\{-3_{-11-1}^- \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	1
142	$\{-3_{-11-1}^+ \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
143	$\{-3_{-1-11}^- \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
144	$\{-3_{-1-11}^+ \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	1
145	$\{1 \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	1
146	$\{4_{100}^+ \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
147	$\{4_{-100}^- \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	1
148	$\{4_{010}^+ \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	1
149	$\{4_{010}^- \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
150	$\{4_{001}^+ \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	1
151	$\{4_{001}^- \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	1
152	$\{2_{100} \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	1
153	$\{2_{010} \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
154	$\{2_{001} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	1
155	$\{2_{110} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	1
156	$\{2_{1-10} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	1
157	$\{2_{011} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
158	$\{2_{01-1} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	1
159	$\{2_{101} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
160	$\{2_{-101} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	1
161	$\{3^+_{111} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	1
162	$\{3^-_{111} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	1
163	$\{3^-_{1-1-1} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
164	$\{3^+_{1-1-1} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	1
165	$\{3^-_{-11-1} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	1
166	$\{3^+_{-11-1} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
167	$\{3^-_{-1-11} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
168	$\{3^+_{-1-11} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	1
169	$\{-1 \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	1
170	$\{-4^+_{100} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
171	$\{-4^-_{100} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	1
172	$\{-4^+_{010} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
173	$\{-4^-_{010} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
174	$\{-4^+_{001} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	1
175	$\{-4^-_{001} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	1
176	$\{\text{m}_{100} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	1
177	$\{\text{m}_{010} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	1
178	$\{\text{m}_{001} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	1
179	$\{\text{m}_{110} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	1
180	$\{\text{m}_{1-10} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	1
181	$\{\text{m}_{011} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
182	$\{m_{01-1} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	1
183	$\{m_{101} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
184	$\{m_{-101} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
185	$\{-3^+_{111} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	1
186	$\{-3^-_{111} \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
187	$\{-3^-_{-1-1-1} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
188	$\{-3^+_{1-1-1} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	1
189	$\{-3^-_{-11-1} \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	1
190	$\{-3^+_{-11-1} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
191	$\{-3^-_{-1-11} \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
192	$\{-3^+_{-1-11} \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	1
193	$\{1' 0\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	-1
194	$\{4^+_{100}' \frac{1}{4}\frac{0}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
195	$\{4^-_{100}' \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
196	$\{4_{010}' \frac{1}{4} \frac{1}{4} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
197	$\{4_{010}' 0 \frac{1}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
198	$\{4_{001}' 0 \frac{1}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	-1
199	$\{4_{001}' \frac{1}{4} 0 \frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	-1
200	$\{2_{100}' 0 \frac{1}{4} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	-1
201	$\{2_{010}' \frac{1}{4} 0 \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	-1
202	$\{2_{001}' \frac{1}{4} \frac{1}{4} 0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	-1
203	$\{2_{110}' \frac{1}{4} \frac{1}{4} 0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	-1
204	$\{2_{1-10}' 0\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	-1
205	$\{2_{011}' 0 \frac{1}{4} \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
206	$\{2_{01-1}' 0\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	-1
207	$\{2_{101}' \frac{1}{4} 0 \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
208	$\{2_{-101}' 0\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
209	$\{3_{111}' 0\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
210	$\{3_{-111}' 0\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
211	$\{3_{-1-1-1}' \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
212	$\{3_{1-1-1}' \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	-1
213	$\{3_{-11-1}' \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
214	$\{3_{-11-1}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
215	$\{3_{-1-11}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
216	$\{3_{-1-11}' \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
217	$\{-1' 0\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	-1
218	$\{-4_{100}^+ \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
219	$\{-4_{100}^- \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	-1
220	$\{-4_{010}^+ \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
221	$\{-4_{010}^- 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
222	$\{-4_{001}^+ 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	-1
223	$\{-4_{001}^- \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
224	$\{m_{100}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	-1
225	$\{m_{010}' \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	-1
226	$\{m_{001}' \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	-1
227	$\{m_{110}' \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	-1
228	$\{m_{1-10}' 0\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	-1
229	$\{m_{011}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
230	$\{m_{01-1}' 0\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	-1
231	$\{m_{101}' \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
232	$\{m_{-101}' 0\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
233	$\{-3_{111}^+ 0\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	-1
234	$\{-3_{111}^- 0\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
235	$\{-3_{1-1-1}^- \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
236	$\{-3_{1-1-1}^+ \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	-1
237	$\{-3_{-11-1}^- \frac{1}{4}\frac{1}{4}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
238	$\{-3_{-11-1}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
239	$\{-3_{-1-11}' 0\frac{1}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
240	$\{-3_{-1-11}' \frac{1}{4}0\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
241	$\{1' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	-1
242	$\{4_{100}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
243	$\{4_{100}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
244	$\{4_{010}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
245	$\{4_{010}' \frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
246	$\{4_{001}' \frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	-1
247	$\{4_{001}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	-1
248	$\{2_{100}' \frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	-1
249	$\{2_{010}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	-1
250	$\{2_{001}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	-1
251	$\{2_{110}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
252	$\{2_{1-10}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	-1
253	$\{2_{011}' 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
254	$\{2_{01-1}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
255	$\{2_{101}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
256	$\{2_{-101}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
257	$\{3_{111}^+ 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
258	$\{3_{111}^- 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
259	$\{3_{-1-1-1}^- \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
260	$\{3_{1-1-1}^+ \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
261	$\{3_{-11-1}^- \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
262	$\{3_{-11-1}^+ 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
263	$\{3_{-1-11}^- 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
264	$\{3_{-1-11}^+ \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
265	$\{-1' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
266	$\{-4_{100}^+ \frac{1}{4} \frac{1}{2} \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
267	$\{-4_{100}^- \frac{1}{4} \frac{3}{4} \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
268	$\{-4_{010}^+ \frac{1}{4} \frac{3}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
269	$\{-4_{010}^- 0 \frac{3}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
270	$\{-4_{001}^+ 0 \frac{3}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	-1
271	$\{-4_{001}^- \frac{1}{4} \frac{1}{2} \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	-1
272	$\{m_{100}' 0 \frac{3}{4} \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	-1
273	$\{m_{010}' \frac{1}{4} \frac{1}{2} \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	-1
274	$\{m_{001}' \frac{1}{4} \frac{3}{4} \frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	-1
275	$\{m_{110}' \frac{1}{4} \frac{3}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	-1
276	$\{m_{1-10}' 0 \frac{1}{2} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	-1
277	$\{m_{011}' 0 \frac{3}{4} \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
278	$\{m_{01-1}' 0 \frac{1}{2} \frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
279	$\{m_{101}' \frac{1}{4} \frac{1}{2} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
280	$\{\mathbf{m}_{-101}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
281	$\{-3_{111}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
282	$\{-3_{111}' 0\frac{1}{2}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
283	$\{-3_{-1-1-1}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
284	$\{-3_{-1-1-1}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
285	$\{-3_{-11-1}' \frac{1}{4}\frac{3}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
286	$\{-3_{-11-1}' 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
287	$\{-3_{-1-11}' 0\frac{3}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
288	$\{-3_{-1-11}' \frac{1}{4}\frac{1}{2}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
289	$\{1' 0\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	-1
290	$\{4_{100}' \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
291	$\{4_{100}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
292	$\{4_{010}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
293	$\{4_{010}' \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
294	$\{4_{001}^+ \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	-1
295	$\{4_{001}^- \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	1	-1
296	$\{2_{100} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	-1
297	$\{2_{010} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	1	-1
298	$\{2_{001} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	1	-1
299	$\{2_{110} \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	-1
300	$\{2_{1-10} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	1	-1
301	$\{2_{011} \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
302	$\{2_{01-1} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
303	$\{2_{101} \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
304	$\{2_{-101} \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
305	$\{3_{111}^+ \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
306	$\{3_{111}^- \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
307	$\{3_{1-1-1}^- \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
308	$\{3_{1-1-1}^+ \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
309	$\{3_{-11-1}^- \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	1	-1
310	$\{3_{-11-1}^+ \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
311	$\{3_{-1-11}^- \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
312	$\{3_{-1-11}^+ \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	1	-1
313	$\{-1' \frac{1}{2} 0 \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	-1
314	$\{-4_{100}^+ \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
315	$\{-4_{100}^- \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
316	$\{-4_{010}^+ \frac{3}{4} \frac{1}{4} \frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
317	$\{-4_{010}^- \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
318	$\{-4_{001}^+ \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	-1
319	$\{-4_{001}^- \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & \frac{3}{4} \end{bmatrix}$	-1	-1
320	$\{\text{m}_{100}' \frac{1}{2} \frac{1}{4} \frac{3}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	-1
321	$\{\text{m}_{010}' \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & \frac{3}{4} \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
322	$\{m_{001}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \\ 0 & 0 & -1 & \frac{1}{2} \end{bmatrix}$	-1	-1
323	$\{m_{110}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	-1
324	$\{m_{1-10}' \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \frac{1}{2} \end{bmatrix}$	-1	-1
325	$\{m_{011}' \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
326	$\{m_{01-1}' \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
327	$\{m_{101}' \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
328	$\{m_{-101}' \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
329	$\{-3^+_{111}' \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
330	$\{-3^-_{111}' \frac{1}{2}0\frac{1}{2}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
331	$\{-3^-_{1-1-1}' \frac{3}{4}0\frac{3}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
332	$\{-3^+_{1-1-1}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & -1 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
333	$\{-3^-_{-11-1}' \frac{3}{4}\frac{1}{4}\frac{1}{2}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \\ -1 & 0 & 0 & \frac{1}{2} \end{bmatrix}$	-1	-1
334	$\{-3^+_{-11-1}' \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
335	$\{-3^-_{-1-11}' \frac{1}{2}\frac{1}{4}\frac{3}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \\ 1 & 0 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
336	$\{-3^+_{-1-11}' \frac{3}{4} 0 \frac{3}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & \frac{3}{4} \end{bmatrix}$	-1	-1
337	$\{1' \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	-1
338	$\{4^+_{100}' \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
339	$\{4^-_{100}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	-1
340	$\{4^+_{010}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
341	$\{4^-_{010}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
342	$\{4^+_{001}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	-1
343	$\{4^-_{001}' \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	1	-1
344	$\{2_{100}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	-1
345	$\{2_{010}' \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	1	-1
346	$\{2_{001}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	1	-1
347	$\{2_{110}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	-1
348	$\{2_{1-10}' \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	1	-1
349	$\{2_{011}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
350	$\{2_{01-1}' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	1	-1
351	$\{2_{101}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
352	$\{2_{-101}' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
353	$\{3_{111}^+{}' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	-1
354	$\{3_{-111}^-{}' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
355	$\{3_{-1-1-1}^-{}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
356	$\{3_{1-1-1}^+{}' \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	1	-1
357	$\{3_{-11-1}^-{}' \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	1	-1
358	$\{3_{-11-1}^+{}' \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
359	$\{3_{-1-11}^-{}' \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
360	$\{3_{-1-11}^+{}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	1	-1
361	$\{-1' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	-1
362	$\{-4_{100}^+{}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
363	$\{-4_{100}^-{}' \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
364	$\{-4_{010}^+ \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
365	$\{-4_{010}^- \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
366	$\{-4_{001}^+ \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	-1
367	$\{-4_{001}^- \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{4} \end{bmatrix}$	-1	-1
368	$\{\text{m}_{100}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	-1
369	$\{\text{m}_{010}' \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{4} \end{bmatrix}$	-1	-1
370	$\{\text{m}_{001}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & 0 \end{bmatrix}$	-1	-1
371	$\{\text{m}_{110}' \frac{3}{4} \frac{3}{4} 0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	-1
372	$\{\text{m}_{1-10}' \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & 0 \end{bmatrix}$	-1	-1
373	$\{\text{m}_{011}' \frac{1}{2} \frac{3}{4} \frac{1}{4}\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{3}{4} \\ 0 & -1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
374	$\{\text{m}_{01-1}' \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & 0 \end{bmatrix}$	-1	-1
375	$\{\text{m}_{101}' \frac{3}{4} \frac{1}{2} \frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
376	$\{\text{m}_{-101}' \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{2} \\ 1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
377	$\{-3_{111}^+ \frac{1}{2} \frac{1}{2} 0\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	-1

continued ...

Table 1

No.	tag	matrix (polar)	det	TR
378	$\{-3_{111}' \frac{1}{2}\frac{1}{2}0\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & -1 & \frac{1}{2} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
379	$\{-3_{1-1-1}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
380	$\{-3_{1-1-1}' \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & -1 & 0 & 0 \end{bmatrix}$	-1	-1
381	$\{-3_{-11-1}' \frac{3}{4}\frac{3}{4}0\}$	$\begin{bmatrix} 0 & 1 & 0 & \frac{3}{4} \\ 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & 0 \end{bmatrix}$	-1	-1
382	$\{-3_{-11-1}' \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & -1 & \frac{1}{2} \\ 1 & 0 & 0 & \frac{3}{4} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
383	$\{-3_{-1-11}' \frac{1}{2}\frac{3}{4}\frac{1}{4}\}$	$\begin{bmatrix} 0 & -1 & 0 & \frac{1}{2} \\ 0 & 0 & 1 & \frac{3}{4} \\ 1 & 0 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1
384	$\{-3_{-1-11}' \frac{3}{4}\frac{1}{2}\frac{1}{4}\}$	$\begin{bmatrix} 0 & 0 & 1 & \frac{3}{4} \\ -1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{1}{4} \end{bmatrix}$	-1	-1