No. 2　C_i　-1　[triclinic] (polar)

表 1　rank 0

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
1	A_g	Ag	–	–	$\mathbb{Q}_0^{(h,A_g)}$	Qh(0, Ag, ,)	C_0

表 2　rank 1

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
2	A_u	Au	1	–	$\mathbb{Q}_1^{(h,A_u,1)}$	Qh(1, Au, 1,)	C_1
3	A_u	Au	2	–	$\mathbb{Q}_1^{(h,A_u,2)}$	Qh(1, Au, 2,)	S_1
4	A_u	Au	3	–	$\mathbb{Q}_1^{(h,A_u,3)}$	Qh(1, Au, 3,)	C_0

表 3　rank 2

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
5	A_g	Ag	1	–	$\mathbb{Q}_2^{(h,A_g,1)}$	Qh(2, Ag, 1,)	C_0
6	A_g	Ag	2	–	$\mathbb{Q}_2^{(h,A_g,2)}$	Qh(2, Ag, 2,)	C_2
7	A_g	Ag	3	–	$\mathbb{Q}_2^{(h,A_g,3)}$	Qh(2, Ag, 3,)	S_1
8	A_g	Ag	4	–	$\mathbb{Q}_2^{(h,A_g,4)}$	Qh(2, Ag, 4,)	C_1
9	A_g	Ag	5	–	$\mathbb{Q}_2^{(h,A_g,5)}$	Qh(2, Ag, 5,)	S_2

表 4　rank 3

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
10	A_u	Au	1	–	$\mathbb{Q}_3^{(h,A_u,1)}$	Qh(3, Au, 1,)	S_2
11	A_u	Au	2	–	$\mathbb{Q}_3^{(h,A_u,2)}$	Qh(3, Au, 2,)	$-\frac{\sqrt{6}C_1}{4}+\frac{\sqrt{10}C_3}{4}$
12	A_u	Au	3	–	$\mathbb{Q}_3^{(h,A_u,3)}$	Qh(3, Au, 3,)	$-\frac{\sqrt{6}S_1}{4}-\frac{\sqrt{10}S_3}{4}$
13	A_u	Au	4	–	$\mathbb{Q}_3^{(h,A_u,4)}$	Qh(3, Au, 4,)	C_0
14	A_u	Au	5	–	$\mathbb{Q}_3^{(h,A_u,5)}$	Qh(3, Au, 5,)	$-\frac{\sqrt{10}C_1}{4}-\frac{\sqrt{6}C_3}{4}$
15	A_u	Au	6	–	$\mathbb{Q}_3^{(h,A_u,6)}$	Qh(3, Au, 6,)	$\frac{\sqrt{10}S_1}{4}-\frac{\sqrt{6}S_3}{4}$
16	A_u	Au	7	–	$\mathbb{Q}_3^{(h,A_u,7)}$	Qh(3, Au, 7,)	C_2

表 5　rank 4

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
17	A_g	Ag	1	–	$\mathbb{Q}_4^{(h,A_g,1)}$	Qh(4, Ag, 1,)	$\frac{\sqrt{21}C_0}{6}+\frac{\sqrt{15}C_4}{6}$
18	A_g	Ag	2	–	$\mathbb{Q}_4^{(h,A_g,2)}$	Qh(4, Ag, 2,)	$\frac{\sqrt{15}C_0}{6}-\frac{\sqrt{21}C_4}{6}$
19	A_g	Ag	3	–	$\mathbb{Q}_4^{(h,A_g,3)}$	Qh(4, Ag, 3,)	$-C_2$
20	A_g	Ag	4	–	$\mathbb{Q}_4^{(h,A_g,4)}$	Qh(4, Ag, 4,)	$-\frac{\sqrt{14}S_1}{4}-\frac{\sqrt{2}S_3}{4}$
21	A_g	Ag	5	–	$\mathbb{Q}_4^{(h,A_g,5)}$	Qh(4, Ag, 5,)	$\frac{\sqrt{14}C_1}{4}-\frac{\sqrt{2}C_3}{4}$
22	A_g	Ag	6	–	$\mathbb{Q}_4^{(h,A_g,6)}$	Qh(4, Ag, 6,)	S_4
23	A_g	Ag	7	–	$\mathbb{Q}_4^{(h,A_g,7)}$	Qh(4, Ag, 7,)	$-\frac{\sqrt{2}S_1}{4}+\frac{\sqrt{14}S_3}{4}$
24	A_g	Ag	8	–	$\mathbb{Q}_4^{(h,A_g,8)}$	Qh(4, Ag, 8,)	$-\frac{\sqrt{2}C_1}{4}-\frac{\sqrt{14}C_3}{4}$
25	A_g	Ag	9	–	$\mathbb{Q}_4^{(h,A_g,9)}$	Qh(4, Ag, 9,)	S_2

表 6　rank 5

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
26	A_u	Au	1	–	$\mathbb{Q}_5^{(h,A_u,1)}$	Qh(5, Au, 1,)	S_4
27	A_u	Au	2	–	$\mathbb{Q}_5^{(h,A_u,2)}$	Qh(5, Au, 2,)	$-S_2$
28	A_u	Au	3	–	$\mathbb{Q}_5^{(h,A_u,3)}$	Qh(5, Au, 3,)	$\frac{\sqrt{15}C_1}{8} - \frac{\sqrt{70}C_3}{16} + \frac{3\sqrt{14}C_5}{16}$
29	A_u	Au	4	–	$\mathbb{Q}_5^{(h,A_u,4)}$	Qh(5, Au, 4,)	$\frac{\sqrt{15}S_1}{8} + \frac{\sqrt{70}S_3}{16} + \frac{3\sqrt{14}S_5}{16}$
30	A_u	Au	5	–	$\mathbb{Q}_5^{(h,A_u,5)}$	Qh(5, Au, 5,)	C_0
31	A_u	Au	6	–	$\mathbb{Q}_5^{(h,A_u,6)}$	Qh(5, Au, 6,)	$\frac{\sqrt{21}C_1}{8} + \frac{9\sqrt{2}C_3}{16} + \frac{\sqrt{10}C_5}{16}$
32	A_u	Au	7	–	$\mathbb{Q}_5^{(h,A_u,7)}$	Qh(5, Au, 7,)	$\frac{\sqrt{21}S_1}{8} - \frac{9\sqrt{2}S_3}{16} + \frac{\sqrt{10}S_5}{16}$
33	A_u	Au	8	–	$\mathbb{Q}_5^{(h,A_u,8)}$	Qh(5, Au, 8,)	C_4
34	A_u	Au	9	–	$\mathbb{Q}_5^{(h,A_u,9)}$	Qh(5, Au, 9,)	$\frac{\sqrt{7}C_1}{4} - \frac{\sqrt{6}C_3}{8} - \frac{\sqrt{30}C_5}{8}$
35	A_u	Au	10	–	$\mathbb{Q}_5^{(h,A_u,10)}$	Qh(5, Au, 10,)	$-\frac{\sqrt{7}S_1}{4} - \frac{\sqrt{6}S_3}{8} + \frac{\sqrt{30}S_5}{8}$
36	A_u	Au	11	–	$\mathbb{Q}_5^{(h,A_u,11)}$	Qh(5, Au, 11,)	C_2

表 7　rank 6

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
37	A_g	Ag	1	–	$\mathbb{Q}_6^{(h,A_g,1)}$	Qh(6, Ag, 1,)	$\frac{\sqrt{2}C_0}{4} - \frac{\sqrt{14}C_4}{4}$
38	A_g	Ag	2	–	$\mathbb{Q}_6^{(h,A_g,2)}$	Qh(6, Ag, 2,)	$\frac{\sqrt{11}C_2}{4} - \frac{\sqrt{5}C_6}{4}$
39	A_g	Ag	3	–	$\mathbb{Q}_6^{(h,A_g,3)}$	Qh(6, Ag, 3,)	$\frac{\sqrt{14}C_0}{4} + \frac{\sqrt{2}C_4}{4}$
40	A_g	Ag	4	–	$\mathbb{Q}_6^{(h,A_g,4)}$	Qh(6, Ag, 4,)	$\frac{\sqrt{5}C_2}{4} + \frac{\sqrt{11}C_6}{4}$
41	A_g	Ag	5	–	$\mathbb{Q}_6^{(h,A_g,5)}$	Qh(6, Ag, 5,)	$\frac{\sqrt{3}S_1}{4} - \frac{\sqrt{30}S_3}{8} - \frac{\sqrt{22}S_5}{8}$
42	A_g	Ag	6	–	$\mathbb{Q}_6^{(h,A_g,6)}$	Qh(6, Ag, 6,)	$-\frac{\sqrt{3}C_1}{4} - \frac{\sqrt{30}C_3}{8} + \frac{\sqrt{22}C_5}{8}$
43	A_g	Ag	7	–	$\mathbb{Q}_6^{(h,A_g,7)}$	Qh(6, Ag, 7,)	S_4
44	A_g	Ag	8	–	$\mathbb{Q}_6^{(h,A_g,8)}$	Qh(6, Ag, 8,)	$\frac{3\sqrt{22}S_1}{16} + \frac{\sqrt{55}S_3}{16} + \frac{\sqrt{3}S_5}{16}$
45	A_g	Ag	9	–	$\mathbb{Q}_6^{(h,A_g,9)}$	Qh(6, Ag, 9,)	$\frac{3\sqrt{22}C_1}{16} - \frac{\sqrt{55}C_3}{16} + \frac{\sqrt{3}C_5}{16}$
46	A_g	Ag	10	–	$\mathbb{Q}_6^{(h,A_g,10)}$	Qh(6, Ag, 10,)	S_6
47	A_g	Ag	11	–	$\mathbb{Q}_6^{(h,A_g,11)}$	Qh(6, Ag, 11,)	$\frac{\sqrt{10}S_1}{16} - \frac{9S_3}{16} + \frac{\sqrt{165}S_5}{16}$
48	A_g	Ag	12	–	$\mathbb{Q}_6^{(h,A_g,12)}$	Qh(6, Ag, 12,)	$\frac{\sqrt{10}C_1}{16} + \frac{9C_3}{16} + \frac{\sqrt{165}C_5}{16}$
49	A_g	Ag	13	–	$\mathbb{Q}_6^{(h,A_g,13)}$	Qh(6, Ag, 13,)	S_2

表 8　rank 7

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
50	A_u	Au	1	–	$\mathbb{Q}_7^{(h,A_u,1)}$	Qh(7, Au, 1,)	$\frac{\sqrt{78}S_2}{12} + \frac{\sqrt{66}S_6}{12}$
51	A_u	Au	2	–	$\mathbb{Q}_7^{(h,A_u,2)}$	Qh(7, Au, 2,)	S_4
52	A_u	Au	3	–	$\mathbb{Q}_7^{(h,A_u,3)}$	Qh(7, Au, 3,)	$\frac{\sqrt{66}S_2}{12} - \frac{\sqrt{78}S_6}{12}$
53	A_u	Au	4	–	$\mathbb{Q}_7^{(h,A_u,4)}$	Qh(7, Au, 4,)	$-\frac{5\sqrt{7}C_1}{32} + \frac{3\sqrt{21}C_3}{32} - \frac{\sqrt{231}C_5}{32} + \frac{\sqrt{429}C_7}{32}$
54	A_u	Au	5	–	$\mathbb{Q}_7^{(h,A_u,5)}$	Qh(7, Au, 5,)	$-\frac{5\sqrt{7}S_1}{32} - \frac{3\sqrt{21}S_3}{32} - \frac{\sqrt{231}S_5}{32} - \frac{\sqrt{429}S_7}{32}$
55	A_u	Au	6	–	$\mathbb{Q}_7^{(h,A_u,6)}$	Qh(7, Au, 6,)	C_0
56	A_u	Au	7	–	$\mathbb{Q}_7^{(h,A_u,7)}$	Qh(7, Au, 7,)	$-\frac{3\sqrt{33}C_1}{32} - \frac{\sqrt{11}C_3}{32} + \frac{25C_5}{32} + \frac{\sqrt{91}C_7}{32}$
57	A_u	Au	8	–	$\mathbb{Q}_7^{(h,A_u,8)}$	Qh(7, Au, 8,)	$-\frac{3\sqrt{33}S_1}{32} + \frac{\sqrt{11}S_3}{32} + \frac{25S_5}{32} - \frac{\sqrt{91}S_7}{32}$
58	A_u	Au	9	–	$\mathbb{Q}_7^{(h,A_u,9)}$	Qh(7, Au, 9,)	C_4
59	A_u	Au	10	–	$\mathbb{Q}_7^{(h,A_u,10)}$	Qh(7, Au, 10,)	$-\frac{\sqrt{858}C_1}{64} - \frac{3\sqrt{286}C_3}{64} - \frac{5\sqrt{26}C_5}{64} - \frac{\sqrt{14}C_7}{64}$
60	A_u	Au	11	–	$\mathbb{Q}_7^{(h,A_u,11)}$	Qh(7, Au, 11,)	$\frac{\sqrt{858}S_1}{64} - \frac{3\sqrt{286}S_3}{64} + \frac{5\sqrt{26}S_5}{64} - \frac{\sqrt{14}S_7}{64}$
61	A_u	Au	12	–	$\mathbb{Q}_7^{(h,A_u,12)}$	Qh(7, Au, 12,)	C_6
62	A_u	Au	13	–	$\mathbb{Q}_7^{(h,A_u,13)}$	Qh(7, Au, 13,)	$-\frac{15\sqrt{6}C_1}{64} + \frac{19\sqrt{2}C_3}{64} - \frac{\sqrt{22}C_5}{64} - \frac{\sqrt{2002}C_7}{64}$
63	A_u	Au	14	–	$\mathbb{Q}_7^{(h,A_u,14)}$	Qh(7, Au, 14,)	$\frac{15\sqrt{6}S_1}{64} + \frac{19\sqrt{2}S_3}{64} + \frac{\sqrt{22}S_5}{64} - \frac{\sqrt{2002}S_7}{64}$
64	A_u	Au	15	–	$\mathbb{Q}_7^{(h,A_u,15)}$	Qh(7, Au, 15,)	C_2

表 9　rank 8

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
65	A_g	Ag	1	–	$\mathbb{Q}_8^{(h,A_g,1)}$	Qh(8, Ag, 1,)	$\frac{\sqrt{33}C_0}{8} + \frac{\sqrt{21}C_4}{12} + \frac{\sqrt{195}C_8}{24}$
66	A_g	Ag	2	–	$\mathbb{Q}_8^{(h,A_g,2)}$	Qh(8, Ag, 2,)	$-\frac{\sqrt{286}C_0}{32} + \frac{\sqrt{182}C_4}{16} + \frac{\sqrt{10}C_8}{32}$
67	A_g	Ag	3	–	$\mathbb{Q}_8^{(h,A_g,3)}$	Qh(8, Ag, 3,)	C_6
68	A_g	Ag	4	–	$\mathbb{Q}_8^{(h,A_g,4)}$	Qh(8, Ag, 4,)	$-\frac{\sqrt{210}C_0}{32} - \frac{\sqrt{330}C_4}{48} + \frac{\sqrt{6006}C_8}{96}$
69	A_g	Ag	5	–	$\mathbb{Q}_8^{(h,A_g,5)}$	Qh(8, Ag, 5,)	C_2
70	A_g	Ag	6	–	$\mathbb{Q}_8^{(h,A_g,6)}$	Qh(8, Ag, 6,)	$-\frac{\sqrt{715}S_1}{32} - \frac{\sqrt{273}S_3}{32} - \frac{\sqrt{35}S_5}{32} - \frac{S_7}{32}$
71	A_g	Ag	7	–	$\mathbb{Q}_8^{(h,A_g,7)}$	Qh(8, Ag, 7,)	$\frac{\sqrt{715}C_1}{32} - \frac{\sqrt{273}C_3}{32} + \frac{\sqrt{35}C_5}{32} - \frac{C_7}{32}$
72	A_g	Ag	8	–	$\mathbb{Q}_8^{(h,A_g,8)}$	Qh(8, Ag, 8,)	S_8
73	A_g	Ag	9	–	$\mathbb{Q}_8^{(h,A_g,9)}$	Qh(8, Ag, 9,)	$-\frac{\sqrt{77}S_1}{32} + \frac{5\sqrt{15}S_3}{32} - \frac{3\sqrt{13}S_5}{32} - \frac{\sqrt{455}S_7}{32}$
74	A_g	Ag	10	–	$\mathbb{Q}_8^{(h,A_g,10)}$	Qh(8, Ag, 10,)	$\frac{\sqrt{77}C_1}{32} + \frac{5\sqrt{15}C_3}{32} + \frac{3\sqrt{13}C_5}{32} - \frac{\sqrt{455}C_7}{32}$
75	A_g	Ag	11	–	$\mathbb{Q}_8^{(h,A_g,11)}$	Qh(8, Ag, 11,)	S_4
76	A_g	Ag	12	–	$\mathbb{Q}_8^{(h,A_g,12)}$	Qh(8, Ag, 12,)	$-\frac{\sqrt{858}S_1}{64} + \frac{\sqrt{910}S_3}{64} + \frac{7\sqrt{42}S_5}{64} + \frac{3\sqrt{30}S_7}{64}$
77	A_g	Ag	13	–	$\mathbb{Q}_8^{(h,A_g,13)}$	Qh(8, Ag, 13,)	$-\frac{\sqrt{858}C_1}{64} - \frac{\sqrt{910}C_3}{64} + \frac{7\sqrt{42}C_5}{64} - \frac{3\sqrt{30}C_7}{64}$
78	A_g	Ag	14	–	$\mathbb{Q}_8^{(h,A_g,14)}$	Qh(8, Ag, 14,)	S_6
79	A_g	Ag	15	–	$\mathbb{Q}_8^{(h,A_g,15)}$	Qh(8, Ag, 15,)	$-\frac{\sqrt{70}S_1}{64} + \frac{3\sqrt{66}S_3}{64} - \frac{\sqrt{1430}S_5}{64} + \frac{\sqrt{2002}S_7}{64}$
80	A_g	Ag	16	–	$\mathbb{Q}_8^{(h,A_g,16)}$	Qh(8, Ag, 16,)	$-\frac{\sqrt{70}C_1}{64} - \frac{3\sqrt{66}C_3}{64} - \frac{\sqrt{1430}C_5}{64} - \frac{\sqrt{2002}C_7}{64}$
81	A_g	Ag	17	–	$\mathbb{Q}_8^{(h,A_g,17)}$	Qh(8, Ag, 17,)	S_2

表 10　rank 9

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
82	A_u	Au	1	–	$\mathbb{Q}_9^{(h,A_u,1)}$	Qh(9, Au, 1,)	$\frac{\sqrt{102}S_4}{12} - \frac{\sqrt{42}S_8}{12}$
83	A_u	Au	2	–	$\mathbb{Q}_9^{(h,A_u,2)}$	Qh(9, Au, 2,)	$\frac{\sqrt{3}S_2}{4} - \frac{\sqrt{13}S_6}{4}$
84	A_u	Au	3	–	$\mathbb{Q}_9^{(h,A_u,3)}$	Qh(9, Au, 3,)	$\frac{\sqrt{42}S_4}{12} + \frac{\sqrt{102}S_8}{12}$
85	A_u	Au	4	–	$\mathbb{Q}_9^{(h,A_u,4)}$	Qh(9, Au, 4,)	$-\frac{\sqrt{13}S_2}{4} - \frac{\sqrt{3}S_6}{4}$
86	A_u	Au	5	–	$\mathbb{Q}_9^{(h,A_u,5)}$	Qh(9, Au, 5,)	$\frac{21\sqrt{5}C_1}{128} - \frac{\sqrt{2310}C_3}{128} + \frac{3\sqrt{286}C_5}{128} - \frac{3\sqrt{1430}C_7}{256} + \frac{\sqrt{24310}C_9}{256}$
87	A_u	Au	6	–	$\mathbb{Q}_9^{(h,A_u,6)}$	Qh(9, Au, 6,)	$\frac{21\sqrt{5}S_1}{128} + \frac{\sqrt{2310}S_3}{128} + \frac{3\sqrt{286}S_5}{128} + \frac{3\sqrt{1430}S_7}{256} + \frac{\sqrt{24310}S_9}{256}$
88	A_u	Au	7	–	$\mathbb{Q}_9^{(h,A_u,7)}$	Qh(9, Au, 7,)	C_0
89	A_u	Au	8	–	$\mathbb{Q}_9^{(h,A_u,8)}$	Qh(9, Au, 8,)	$\frac{\sqrt{2431}C_1}{128} + \frac{\sqrt{9282}C_3}{128} + \frac{5\sqrt{170}C_5}{128} + \frac{7\sqrt{34}C_7}{256} + \frac{3\sqrt{2}C_9}{256}$
90	A_u	Au	9	–	$\mathbb{Q}_9^{(h,A_u,9)}$	Qh(9, Au, 9,)	$\frac{\sqrt{2431}S_1}{128} - \frac{\sqrt{9282}S_3}{128} + \frac{5\sqrt{170}S_5}{128} - \frac{7\sqrt{34}S_7}{256} + \frac{3\sqrt{2}S_9}{256}$
91	A_u	Au	10	–	$\mathbb{Q}_9^{(h,A_u,10)}$	Qh(9, Au, 10,)	C_8
92	A_u	Au	11	–	$\mathbb{Q}_9^{(h,A_u,11)}$	Qh(9, Au, 11,)	$\frac{\sqrt{1001}C_1}{64} - \frac{\sqrt{78}C_3}{64} - \frac{3\sqrt{70}C_5}{64} + \frac{23\sqrt{14}C_7}{128} + \frac{3\sqrt{238}C_9}{128}$
93	A_u	Au	12	–	$\mathbb{Q}_9^{(h,A_u,12)}$	Qh(9, Au, 12,)	$\frac{\sqrt{1001}S_1}{64} + \frac{\sqrt{78}S_3}{64} - \frac{3\sqrt{70}S_5}{64} - \frac{23\sqrt{14}S_7}{128} + \frac{3\sqrt{238}S_9}{128}$
94	A_u	Au	13	–	$\mathbb{Q}_9^{(h,A_u,13)}$	Qh(9, Au, 13,)	C_4
95	A_u	Au	14	–	$\mathbb{Q}_9^{(h,A_u,14)}$	Qh(9, Au, 14,)	$\frac{\sqrt{858}C_1}{64} + \frac{\sqrt{91}C_3}{32} - \frac{5\sqrt{15}C_5}{32} - \frac{21\sqrt{3}C_7}{64} - \frac{\sqrt{51}C_9}{64}$
96	A_u	Au	15	–	$\mathbb{Q}_9^{(h,A_u,15)}$	Qh(9, Au, 15,)	$-\frac{\sqrt{858}S_1}{64} + \frac{\sqrt{91}S_3}{32} + \frac{5\sqrt{15}S_5}{32} - \frac{21\sqrt{3}S_7}{64} + \frac{\sqrt{51}S_9}{64}$
97	A_u	Au	16	–	$\mathbb{Q}_9^{(h,A_u,16)}$	Qh(9, Au, 16,)	C_6
98	A_u	Au	17	–	$\mathbb{Q}_9^{(h,A_u,17)}$	Qh(9, Au, 17,)	$\frac{7\sqrt{22}C_1}{64} - \frac{3\sqrt{21}C_3}{32} + \frac{\sqrt{65}C_5}{32} + \frac{\sqrt{13}C_7}{64} - \frac{3\sqrt{221}C_9}{64}$
99	A_u	Au	18	–	$\mathbb{Q}_9^{(h,A_u,18)}$	Qh(9, Au, 18,)	$-\frac{7\sqrt{22}S_1}{64} - \frac{3\sqrt{21}S_3}{32} - \frac{\sqrt{65}S_5}{32} + \frac{\sqrt{13}S_7}{64} + \frac{3\sqrt{221}S_9}{64}$
100	A_u	Au	19	–	$\mathbb{Q}_9^{(h,A_u,19)}$	Qh(9, Au, 19,)	C_2

表 11　rank 10

No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
101	A_g	Ag	1	–	$\mathbb{Q}_{10}^{(h,A_g,1)}$	Qh(10, Ag, 1,)	$\frac{\sqrt{390}C_0}{48} - \frac{\sqrt{22}C_4}{8} - \frac{\sqrt{1122}C_8}{48}$
102	A_g	Ag	2	–	$\mathbb{Q}_{10}^{(h,A_g,2)}$	Qh(10, Ag, 2,)	$-\frac{\sqrt{85}C_{10}}{16} + \frac{\sqrt{1482}C_2}{48} + \frac{\sqrt{57}C_6}{48}$
103	A_g	Ag	3	–	$\mathbb{Q}_{10}^{(h,A_g,3)}$	Qh(10, Ag, 3,)	$\frac{11\sqrt{420189}C_0}{8988} + \frac{\sqrt{827645}C_4}{1498} - \frac{\sqrt{146055}C_8}{8988}$
104	A_g	Ag	4	–	$\mathbb{Q}_{10}^{(h,A_g,4)}$	Qh(10, Ag, 4,)	$\frac{\sqrt{370006}C_{10}}{749} + \frac{\sqrt{190995}C_2}{749}$
105	A_g	Ag	5	–	$\mathbb{Q}_{10}^{(h,A_g,5)}$	Qh(10, Ag, 5,)	$\frac{3\sqrt{3213210}C_0}{11984} - \frac{83\sqrt{1498}C_4}{5992} + \frac{31\sqrt{76398}C_8}{11984}$
106	A_g	Ag	6	–	$\mathbb{Q}_{10}^{(h,A_g,6)}$	Qh(10, Ag, 6,)	$\frac{\sqrt{1209635}C_{10}}{11984} - \frac{19\sqrt{58422}C_2}{35952} + \frac{\sqrt{2247}C_6}{48}$
107	A_g	Ag	7	–	$\mathbb{Q}_{10}^{(h,A_g,7)}$	Qh(10, Ag, 7,)	$\frac{\sqrt{221}S_1}{32} - \frac{\sqrt{102}S_3}{32} - \frac{\sqrt{510}S_5}{32} - \frac{11\sqrt{6}S_7}{64} - \frac{\sqrt{38}S_9}{64}$
108	A_g	Ag	8	–	$\mathbb{Q}_{10}^{(h,A_g,8)}$	Qh(10, Ag, 8,)	$-\frac{\sqrt{221}C_1}{32} - \frac{\sqrt{102}C_3}{32} + \frac{\sqrt{510}C_5}{32} - \frac{11\sqrt{6}C_7}{64} + \frac{\sqrt{38}C_9}{64}$
109	A_g	Ag	9	–	$\mathbb{Q}_{10}^{(h,A_g,9)}$	Qh(10, Ag, 9,)	S_8
110	A_g	Ag	10	–	$\mathbb{Q}_{10}^{(h,A_g,10)}$	Qh(10, Ag, 10,)	$\frac{\sqrt{39}S_1}{32} - \frac{11\sqrt{2}S_3}{32} + \frac{5\sqrt{10}S_5}{32} - \frac{\sqrt{34}S_7}{64} - \frac{\sqrt{1938}S_9}{64}$
111	A_g	Ag	11	–	$\mathbb{Q}_{10}^{(h,A_g,11)}$	Qh(10, Ag, 11,)	$-\frac{\sqrt{39}C_1}{32} - \frac{11\sqrt{2}C_3}{32} - \frac{5\sqrt{10}C_5}{32} - \frac{\sqrt{34}C_7}{64} + \frac{\sqrt{1938}C_9}{64}$
112	A_g	Ag	12	–	$\mathbb{Q}_{10}^{(h,A_g,12)}$	Qh(10, Ag, 12,)	S_4
113	A_g	Ag	13	–	$\mathbb{Q}_{10}^{(h,A_g,13)}$	Qh(10, Ag, 13,)	$\frac{\sqrt{41990}S_1}{256} + \frac{\sqrt{4845}S_3}{128} + \frac{\sqrt{969}S_5}{128} + \frac{\sqrt{285}S_7}{256} + \frac{\sqrt{5}S_9}{256}$
114	A_g	Ag	14	–	$\mathbb{Q}_{10}^{(h,A_g,14)}$	Qh(10, Ag, 14,)	$\frac{\sqrt{41990}C_1}{256} - \frac{\sqrt{4845}C_3}{128} + \frac{\sqrt{969}C_5}{128} - \frac{\sqrt{285}C_7}{256} + \frac{\sqrt{5}C_9}{256}$
115	A_g	Ag	15	–	$\mathbb{Q}_{10}^{(h,A_g,15)}$	Qh(10, Ag, 15,)	S_{10}
116	A_g	Ag	16	–	$\mathbb{Q}_{10}^{(h,A_g,16)}$	Qh(10, Ag, 16,)	$\frac{9\sqrt{78}S_1}{256} - \frac{69S_3}{128} - \frac{\sqrt{5}S_5}{128} + \frac{43\sqrt{17}S_7}{256} + \frac{3\sqrt{969}S_9}{256}$
117	A_g	Ag	17	–	$\mathbb{Q}_{10}^{(h,A_g,17)}$	Qh(10, Ag, 17,)	$\frac{9\sqrt{78}C_1}{256} + \frac{69C_3}{128} - \frac{\sqrt{5}C_5}{128} - \frac{43\sqrt{17}C_7}{256} + \frac{3\sqrt{969}C_9}{256}$
118	A_g	Ag	18	–	$\mathbb{Q}_{10}^{(h,A_g,18)}$	Qh(10, Ag, 18,)	S_6
119	A_g	Ag	19	–	$\mathbb{Q}_{10}^{(h,A_g,19)}$	Qh(10, Ag, 19,)	$\frac{7\sqrt{3}S_1}{128} - \frac{7\sqrt{26}S_3}{128} + \frac{5\sqrt{130}S_5}{128} - \frac{7\sqrt{442}S_7}{256} + \frac{\sqrt{25194}S_9}{256}$
120	A_g	Ag	20	–	$\mathbb{Q}_{10}^{(h,A_g,20)}$	Qh(10, Ag, 20,)	$\frac{7\sqrt{3}C_1}{128} + \frac{7\sqrt{26}C_3}{128} + \frac{5\sqrt{130}C_5}{128} + \frac{7\sqrt{442}C_7}{256} + \frac{\sqrt{25194}C_9}{256}$
121	A_g	Ag	21	–	$\mathbb{Q}_{10}^{(h,A_g,21)}$	Qh(10, Ag, 21,)	S_2

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No.	irrep.	(tag)	mul.	comp.	harmonics	(tag)	definition
122	A_u	Au	1	–	$\mathbb{Q}_{11}^{(h,A_u,1)}$	Qh(11, Au, 1,)	$\frac{\sqrt{798}S_{10}}{48}+\frac{\sqrt{255}S_2}{24}+\frac{3\sqrt{6}S_6}{16}$
123	A_u	Au	2	–	$\mathbb{Q}_{11}^{(h,A_u,2)}$	Qh(11, Au, 2,)	S_8
124	A_u	Au	3	–	$\mathbb{Q}_{11}^{(h,A_u,3)}$	Qh(11, Au, 3,)	$-\frac{\sqrt{210}S_{10}}{96}+\frac{\sqrt{969}S_2}{48}-\frac{\sqrt{570}S_6}{32}$
125	A_u	Au	4	–	$\mathbb{Q}_{11}^{(h,A_u,4)}$	Qh(11, Au, 4,)	S_4
126	A_u	Au	5	–	$\mathbb{Q}_{11}^{(h,A_u,5)}$	Qh(11, Au, 5,)	$-\frac{\sqrt{646}S_{10}}{32}+\frac{\sqrt{35}S_2}{16}+\frac{\sqrt{238}S_6}{32}$
127	A_u	Au	6	–	$\mathbb{Q}_{11}^{(h,A_u,6)}$	Qh(11, Au, 6,)	$-\frac{21\sqrt{66}C_1}{512}+\frac{\sqrt{88179}C_{11}}{512}+\frac{\sqrt{30030}C_3}{512}-\frac{15\sqrt{143}C_5}{512}+\frac{\sqrt{36465}C_7}{512}-\frac{\sqrt{46189}C_9}{512}$
128	A_u	Au	7	–	$\mathbb{Q}_{11}^{(h,A_u,7)}$	Qh(11, Au, 7,)	$-\frac{21\sqrt{66}S_1}{512}-\frac{\sqrt{88179}S_{11}}{512}-\frac{\sqrt{30030}S_3}{512}-\frac{15\sqrt{143}S_5}{512}-\frac{\sqrt{36465}S_7}{512}-\frac{\sqrt{46189}S_9}{512}$
129	A_u	Au	8	–	$\mathbb{Q}_{11}^{(h,A_u,8)}$	Qh(11, Au, 8,)	C_0
130	A_u	Au	9	–	$\mathbb{Q}_{11}^{(h,A_u,9)}$	Qh(11, Au, 9,)	$-\frac{\sqrt{41990}C_1}{512}+\frac{\sqrt{385}C_{11}}{512}-\frac{3\sqrt{4522}C_3}{512}+\frac{3\sqrt{4845}C_5}{512}+\frac{77\sqrt{19}C_7}{512}+\frac{39\sqrt{15}C_9}{512}$
131	A_u	Au	10	–	$\mathbb{Q}_{11}^{(h,A_u,10)}$	Qh(11, Au, 10,)	$-\frac{\sqrt{41990}S_1}{512}-\frac{\sqrt{385}S_{11}}{512}+\frac{3\sqrt{4522}S_3}{512}+\frac{3\sqrt{4845}S_5}{512}-\frac{77\sqrt{19}S_7}{512}+\frac{39\sqrt{15}S_9}{512}$
132	A_u	Au	11	–	$\mathbb{Q}_{11}^{(h,A_u,11)}$	Qh(11, Au, 11,)	C_8
133	A_u	Au	12	–	$\mathbb{Q}_{11}^{(h,A_u,12)}$	Qh(11, Au, 12,)	$-\frac{5\sqrt{546}C_1}{256}+\frac{\sqrt{10659}C_{11}}{256}+\frac{11\sqrt{30}C_3}{256}+\frac{13\sqrt{7}C_5}{256}-\frac{3\sqrt{1785}C_7}{256}+\frac{3\sqrt{2261}C_9}{256}$
134	A_u	Au	13	–	$\mathbb{Q}_{11}^{(h,A_u,13)}$	Qh(11, Au, 13,)	$-\frac{5\sqrt{546}S_1}{256}-\frac{\sqrt{10659}S_{11}}{256}-\frac{11\sqrt{30}S_3}{256}+\frac{13\sqrt{7}S_5}{256}+\frac{3\sqrt{1785}S_7}{256}+\frac{3\sqrt{2261}S_9}{256}$
135	A_u	Au	14	–	$\mathbb{Q}_{11}^{(h,A_u,14)}$	Qh(11, Au, 14,)	C_4
136	A_u	Au	15	–	$\mathbb{Q}_{11}^{(h,A_u,15)}$	Qh(11, Au, 15,)	$-\frac{\sqrt{29393}C_1}{512}-\frac{\sqrt{22}C_{11}}{1024}-\frac{9\sqrt{1615}C_3}{512}-\frac{5\sqrt{13566}C_5}{1024}-\frac{7\sqrt{1330}C_7}{1024}-\frac{9\sqrt{42}C_9}{1024}$
137	A_u	Au	16	–	$\mathbb{Q}_{11}^{(h,A_u,16)}$	Qh(11, Au, 16,)	$\frac{\sqrt{29393}S_1}{512}-\frac{\sqrt{22}S_{11}}{1024}-\frac{9\sqrt{1615}S_3}{512}+\frac{5\sqrt{13566}S_5}{1024}-\frac{7\sqrt{1330}S_7}{1024}+\frac{9\sqrt{42}S_9}{1024}$
138	A_u	Au	17	–	$\mathbb{Q}_{11}^{(h,A_u,17)}$	Qh(11, Au, 17,)	C_{10}
139	A_u	Au	18	–	$\mathbb{Q}_{11}^{(h,A_u,18)}$	Qh(11, Au, 18,)	$-\frac{15\sqrt{221}C_1}{512}-\frac{3\sqrt{2926}C_{11}}{1024}-\frac{\sqrt{595}C_3}{512}+\frac{53\sqrt{102}C_5}{1024}-\frac{105\sqrt{10}C_7}{1024}-\frac{61\sqrt{114}C_9}{1024}$
140	A_u	Au	19	–	$\mathbb{Q}_{11}^{(h,A_u,19)}$	Qh(11, Au, 19,)	$\frac{15\sqrt{221}S_1}{512}-\frac{3\sqrt{2926}S_{11}}{1024}-\frac{\sqrt{595}S_3}{512}-\frac{53\sqrt{102}S_5}{1024}-\frac{105\sqrt{10}S_7}{1024}+\frac{61\sqrt{114}S_9}{1024}$
141	A_u	Au	20	–	$\mathbb{Q}_{11}^{(h,A_u,20)}$	Qh(11, Au, 20,)	C_6
142	A_u	Au	21	–	$\mathbb{Q}_{11}^{(h,A_u,21)}$	Qh(11, Au, 21,)	$-\frac{21\sqrt{130}C_1}{512}-\frac{\sqrt{124355}C_{11}}{512}+\frac{57\sqrt{14}C_3}{512}-\frac{41\sqrt{15}C_5}{512}+\frac{17\sqrt{17}C_7}{512}+\frac{\sqrt{4845}C_9}{512}$
143	A_u	Au	22	–	$\mathbb{Q}_{11}^{(h,A_u,22)}$	Qh(11, Au, 22,)	$\frac{21\sqrt{130}S_1}{512}-\frac{\sqrt{124355}S_{11}}{512}+\frac{57\sqrt{14}S_3}{512}+\frac{41\sqrt{15}S_5}{512}+\frac{17\sqrt{17}S_7}{512}-\frac{\sqrt{4845}S_9}{512}$
144	A_u	Au	23	–	$\mathbb{Q}_{11}^{(h,A_u,23)}$	Qh(11, Au, 23,)	C_2