

Compatible Relation

表1 O_h subgroup

O_h	A_{1g}	A_{2g}	E_g	E_g	T_{1g}	T_{1g}	T_{1g}	T_{2g}	T_{2g}	T_{2g}	A_{1u}	A_{2u}	E_u	E_u	T_{1u}	T_{1u}	T_{1u}	T_{2u}	T_{2u}	T_{2u}
T_d	A_1	A_2	E	E	T_1	T_1	T_1	T_2	T_2	T_2	A_2	A_1	E	E	T_2	T_2	T_2	T_1	T_1	T_1
O	A_1	A_2	E	E	T_1	T_1	T_1	T_2	T_2	T_2	A_1	A_2	E	E	T_1	T_1	T_1	T_2	T_2	T_2
T_h	A_g	A_g	$E_g^{(a)}$	$E_g^{(b)}$	T_g	T_g	T_g	T_g	T_g	T_g	A_u	A_u	$E_u^{(a)}$	$E_u^{(b)}$	T_u	T_u	T_u	T_u	T_u	T_u
T	A	A	$E^{(a)}$	$E^{(b)}$	T	T	T	T	T	T	A	A	$E^{(a)}$	$E^{(b)}$	T	T	T	T	T	T
D_{4h}	A_{1g}	B_{1g}	A_{1g}	B_{1g}	E_g	E_g	A_{2g}	E_g	E_g	B_{2g}	A_{1u}	B_{1u}	A_{1u}	B_{1u}	E_u	E_u	A_{2u}	E_u	E_u	B_{2u}
$D_{2d} (-42m)$	A_1	B_1	A_1	B_1	E	E	A_2	E	E	B_2	B_1	A_1	B_1	A_1	E	E	B_2	E	E	A_2
$D_{2d} - 1 (-4m2)$	A_1	B_2	A_1	B_2	E	E	A_2	E	E	B_1	B_1	A_2	B_1	A_2	E	E	B_2	E	E	A_1
C_{4v}	A_1	B_1	A_1	B_1	E	E	A_2	E	E	B_2	A_2	B_2	A_2	B_2	E	E	A_1	E	E	B_1
D_4	A_1	B_1	A_1	B_1	E	E	A_2	E	E	B_2	A_1	B_1	A_1	B_1	E	E	A_2	E	E	B_2
C_{4h}	A_g	B_g	A_g	B_g	$E_g^{(a)}$	$E_g^{(b)}$	A_g	$E_g^{(b)}$	$E_g^{(a)}$	B_g	A_u	B_u	A_u	B_u	$E_u^{(a)}$	$E_u^{(b)}$	A_u	$E_u^{(b)}$	$E_u^{(a)}$	B_u
S_4	A	B	A	B	$E^{(b)}$	$E^{(a)}$	A	$E^{(a)}$	$E^{(b)}$	B	B	A	B	A	$E^{(a)}$	$E^{(b)}$	B	$E^{(b)}$	$E^{(a)}$	A
C_4	A	B	A	B	$E^{(a)}$	$E^{(b)}$	A	$E^{(b)}$	$E^{(a)}$	B	A	B	A	B	$E^{(a)}$	$E^{(b)}$	A	$E^{(b)}$	$E^{(a)}$	B
D_{2h}	A_g	A_g	A_g	A_g	B_{3g}	B_{2g}	B_{1g}	B_{3g}	B_{2g}	B_{1g}	A_u	A_u	A_u	A_u	B_{3u}	B_{2u}	B_{1u}	B_{3u}	B_{2u}	B_{1u}
C_{2v}	A_1	A_1	A_1	A_1	B_2	B_1	A_2	B_2	B_1	A_2	A_2	A_2	A_2	A_2	B_1	B_2	A_1	B_1	B_2	A_1
D_2	A	A	A	A	B_3	B_2	B_1	B_3	B_2	B_1	A	A	A	A	B_3	B_2	B_1	B_3	B_2	B_1
C_{2h}	A_g	A_g	A_g	A_g	B_g	A_g	B_g	B_g	A_g	B_g	A_u	A_u	A_u	A_u	B_u	A_u	B_u	B_u	A_u	B_u
C_s	A'	A'	A'	A'	A''	A'	A''	A''	A'	A''	A''	A''	A''	A''	A'	A''	A'	A'	A''	A'
C_2	A	A	A	A	B	A	B	B	A	B	A	A	A	A	B	A	B	B	A	B
C_i	A_g	A_g	A_g	A_g	A_g	A_g	A_g	A_g	A_g	A_g	A_u	A_u	A_u	A_u	A_u	A_u	A_u	A_u	A_u	A_u
C_1	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

表 2 D_{6h} subgroup

D_{6h}	A_{1g}	A_{2g}	B_{1g}	B_{2g}	E_{1g}	E_{1g}	E_{2g}	E_{2g}	A_{1u}	A_{2u}	B_{1u}	B_{2u}	E_{1u}	E_{1u}	E_{2u}	E_{2u}
$D_{3h} (-6m2)$	A'_1	A'_2	A''_1	A''_2	E''	E''	E'	E'	A''_1	A''_2	A'_1	A'_2	E'	E'	E''	E''
$D_{3h} - 1 (-62m)$	A'_1	A'_2	A''_2	A''_1	E''	E''	E'	E'	A''_1	A''_2	A'_2	A'_1	E'	E'	E''	E''
C_{6v}	A_1	A_2	B_2	B_1	E_1	E_1	E_2	E_2	A_2	A_1	B_1	B_2	E_1	E_1	E_2	E_2
D_6	A_1	A_2	B_1	B_2	E_1	E_1	E_2	E_2	A_1	A_2	B_1	B_2	E_1	E_1	E_2	E_2
C_{6h}	A_g	A_g	B_g	B_g	$E_{1g}^{(a)}$	$E_{1g}^{(b)}$	$E_{2g}^{(a)}$	$E_{2g}^{(b)}$	A_u	A_u	B_u	B_u	$E_{1u}^{(a)}$	$E_{1u}^{(b)}$	$E_{2u}^{(a)}$	$E_{2u}^{(b)}$
C_{3h}	A'	A'	A''	A''	$E''^{(a)}$	$E''^{(b)}$	$E'^{(a)}$	$E'^{(b)}$	A''	A''	A'	A'	$E'^{(a)}$	$E'^{(b)}$	$E''^{(a)}$	$E''^{(b)}$
C_6	A	A	B	B	$E_1^{(a)}$	$E_1^{(b)}$	$E_2^{(a)}$	$E_2^{(b)}$	A	A	B	B	$E_1^{(a)}$	$E_1^{(b)}$	$E_2^{(a)}$	$E_2^{(b)}$
$D_{3d} (-31m)$	A_{1g}	A_{2g}	A_{1g}	A_{2g}	E_g	E_g	E_g	E_g	A_{1u}	A_{2u}	A_{1u}	A_{2u}	E_u	E_u	E_u	E_u
$D_{3d} - 1 (-3m1)$	A_{1g}	A_{2g}	A_{2g}	A_{1g}	E_g	E_g	E_g	E_g	A_{1u}	A_{2u}	A_{2u}	A_{1u}	E_u	E_u	E_u	E_u
$C_{3v} (3m1)$	A_1	A_2	A_2	A_1	E	E	E	E	A_2	A_1	A_1	A_2	E	E	E	E
$C_{3v} - 1 (31m)$	A_1	A_2	A_1	A_2	E	E	E	E	A_2	A_1	A_2	A_1	E	E	E	E
$D_3 (312)$	A_1	A_2	A_1	A_2	E	E	E	E	A_1	A_2	A_1	A_2	E	E	E	E
$D_3 - 1 (321)$	A_1	A_2	A_2	A_1	E	E	E	E	A_1	A_2	A_2	A_1	E	E	E	E
C_{3i}	A_g	A_g	A_g	A_g	$E_g^{(a)}$	$E_g^{(b)}$	$E_g^{(a)}$	$E_g^{(b)}$	A_u	A_u	A_u	A_u	$E_u^{(a)}$	$E_u^{(b)}$	$E_u^{(a)}$	$E_u^{(b)}$
C_3	A	A	A	A	$E^{(a)}$	$E^{(b)}$	$E^{(a)}$	$E^{(b)}$	A	A	A	A	$E^{(a)}$	$E^{(b)}$	$E^{(a)}$	$E^{(b)}$