Commonly Used Correlation Tables

C_{2v}	C_2	$C_s, \sigma\,(xz)$	$C_s, \sigma\,(yz)$
A_1	A	A'	A'
A_2	A	A''	A''
B_1	B	A'	A''
B_2	B	A''	A'

C_{3v}	C_3	C_s
A_1	A	A'
A_2	A	A''
E	$\{E\}$	$A' + A''$

C_{4v}	C_4	$C_{2v},\,\sigma_v$	$C_{2v},\,\sigma_d$	C_2	$C_s,\,\sigma_v$	$C_s,\,\sigma_d$
A_1	A	A_1	A_1	A	A'	A'
A_2	A	A_2	A_2	A	A''	A''
B_1	B	A_1	A_2	A	A'	A''
B_2	B	A_2	A_1	A	A''	A'
E	E	$B_1 + B_2$	$B_1 + B_2$	$2B$	$A' + A''$	$A' + A''$

D_{4h}	D_4	C_{4v}	C_{4h}	C_4	D_{2h} C_2'	D_{2h} C_2''	D_{2d} $C_2' \to C_2'$	D_{2d} $C_2'' \to C_2'$	S_4	$D_2 C_2'$
A_{1g}	A_1	A_1	A_g	A	A_g	A_g	A_1	A_1	A	A
A_{2g}	A_2	A_2	A_g	A	B_{1g}	B_{1g}	A_2	A_2	A	B_1
B_{1g}	B_1	B_1	B_g	B	A_g	B_{1g}	B_1	B_2	B	A
B_{2g}	B_2	B_2	B_g	B	B_{1g}	A_g	B_2	B_1	B	B_1
E_g	E	E	$\{E_g\}$	$\{E\}$	$B_{2g} + B_{3g}$	$B_{2g} + B_{3g}$	E	E	$\{E\}$	$B_2 + B_3$
A_{1u}	A_1	A_2	A_u	A	A_u	A_u	B_1	B_1	B	A
A_{2u}	A_2	A_1	A_u	A	B_{1u}	B_{1u}	B_2	B_2	B	B_1
B_{1u}	B_1	B_2	B_u	B	A_u	B_{1u}	A_1	A_2	A	A
B_{2u}	B_2	B_1	B_u	B	B_{1u}	A_u	A_2	A_1	A	B_1
E_u	E	E	$\{E_u\}$	$\{E\}$	$B_{2u} + B_{3u}$	$B_{2u} + B_{3u}$	E	E	$\{E\}$	$B_2 + B_3$

T_d	T	C_{3v}	C_{2v}	D_{2d}
A_1	A	A_1	A_1	A_1
A_2	A	A_2	A_2	B_1
E	$\{E\}$	E	$A_1 + A_2$	$A_1 + B_1$
T_1	T	$A_2 + E$	$A_2 + B_1 + B_2$	$A_2 + E$
T_2	T	$A_1 + E$	$A_1 + B_1 + B_2$	$B_2 + E$

O_h	O	T_d	T_h	D_{4h}	D_{3d}
A_{1g}	A_1	A_1	A_g	A_{1g}	A_{1g}
A_{2g}	A_2	A_2	A_g	B_{1g}	A_{2g}
E_g	E	E	$\{E_g\}$	$A_{1g} + B_{1g}$	E_g
T_{1g}	T_1	T_1	T_g	$A_{2g} + E_g$	$A_{2g} + E_g$
T_{2g}	T_2	T_2	T_g	$B_{2g} + E_g$	$A_{1g} + E_g$
A_{1u}	A_1	A_2	A_u	A_{1u}	A_{1u}
A_{2u}	A_2	A_1	A_u	B_{1u}	A_{2u}
E_u	E	E	$\{E_u\}$	$A_{1u} + B_{1u}$	E_u
T_{1u}	T_1	T_2	T_u	$A_{2u} + E_u$	$A_{2u} + E_u$
T_{2u}	T_2	T_1	T_u	$B_{2u} + E_u$	$A_{1u} + E_u$

$C_{\infty v}$		C_{2v}
$A_1 = \Sigma^+$		A_1
$A_2 = \Sigma^-$		A_2
$E_1 = \Pi$		$B_1 + B_2$
$E_2 = \Delta$		$A_1 + A_2$

$D_{\infty h}$		D_{2h}
Σ_g^+		A_g
Σ_g^-		B_{1g}
Π_g		$B_{2g} + B_{3g}$
Δ_g		$A_g + B_{1g}$
Σ_u^+		B_{1u}
Σ_u^-		A_u
Π_u		$B_{2u} + B_{3u}$
Δ_u		$A_u + B_{1u}$