Charakterentabelle für Punktgruppe C_{2v}

C_{2v}	E	C_2 (z)	$\sigma_v(xz)$	$\sigma_v(yz)$	h = 4, lineare Fkt., Rotation	quadratische Fkt.	kubische Fkt.
A_1	+1	+1	+1	+1	z	x^2, y^2, z^2	z^3, x^2z, y^2z
A_2	+1	+1	-1	-1	R_z	xy	xyz
B_1	+1	-1	+1	-1	x, R_y	xz	xz^2, x^3, xy^2
B_2	+1	-1	-1	+1	y, R_x	yz	yz^2, y^3, x^2y

Quelle: http://www.pci.tu-bs.de/aggericke/PC2/Punktgruppen

Charakterentabelle für Punktgruppe D_{6h}

(x axis coincident with C'_2 axis)

D_{6h}	E	$2C_6$ (z)	$2C_3$	C_2	$3C'_2$	$3C''_2$	i	$2S_3$	$2S_6$	σ_h (xy)	$3\sigma_d$	$3\sigma_v$	h = 24, lineare Fkt., Rotation	quadratische Fkt.	kubische Fkt.
A_{1g}	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	-	x^2+y^2, z^2	-
A_{2g}	+1	+1	+1	+1	-1	-1	+1	+1	+1	+1	-1	-1	R_z	-	-
B_{1g}	+1	-1	+1	-1	+1	-1	+1	-1	+1	-1	+1	-1	-	-	-
B_{2g}	+1	-1	+1	-1	-1	+1	+1	-1	+1	-1	-1	+1	-	-	-
E_{1g}	+2	+1	-1	-2	0	0	+2	+1	-1	-2	0	0	(R_x, R_y)	(xz, yz)	-
E_{2g}	+2	-1	-1	+2	0	0	+2	-1	-1	+2	0	0	-	(x^2-y^2, xy)	-
A_{1u}	+1	+1	+1	+1	+1	+1	-1	-1	-1	-1	-1	-1	-	-	-
A_{2u}	+1	+1	+1	+1	-1	-1	-1	-1	-1	-1	+1	+1	z	-	z^3, $z(x^2+y^2)$
B_{1u}	+1	-1	+1	-1	+1	-1	-1	+1	-1	+1	-1	+1	-	-	$x(x^2-3y^2)$
B_{2u}	+1	-1	+1	-1	-1	+1	-1	+1	-1	+1	+1	-1	-	-	$y(3x^2-y^2)$
E_{1u}	+2	+1	-1	-2	0	0	-2	-1	+1	+2	0	0	(x, y)	-	(xz^2, yz^2) $[x(x^2+y^2), y(x^2+y^2)]$
E_{2u}	+2	-1	-1	+2	0	0	-2	+1	+1	-2	0	0	-	-	$[xyz, z(x^2-y^2)]$

Quelle: http://www.pci.tu-bs.de/aggericke/PC2/Punktgruppen

Charakterentabelle für Punktgruppe T_d

T_d	E	$8C_3$	$3C_2$	$6S_4$	$6\sigma_d$	h = 24, lineare Fkt., Rotation	quadratische Fkt.	kubische Fkt.
A_1	+1	+1	+1	+1	+1	-	$x^2+y^2+z^2$	xyz
A_2	+1	+1	+1	-1	-1	-	-	-
E	+2	-1	+2	0	0	-	$(2z^2-x^2-y^2, x^2-y^2)$	-
T_1	+3	0	-1	+1	-1	(R_x, R_y, R_z)	-	$[x(z^2-y^2), y(z^2-x^2), z(x^2-y^2)]$
T_2	+3	0	-1	-1	+1	(x, y, z)	(xy, xz, yz)	(x^3, y^3, z^3) $[x(z^2+y^2), y(z^2+x^2), z(x^2+y^2)]$

Quelle: http://www.pci.tu-bs.de/aggericke/PC2/Punktgruppen

Charakterentabelle für Punktgruppe I_h

I_h	E	$12C_5$	$12(C_5)^2$	$20C_3$	$15C_2$	i	$12S_{10}$	$12(S_{10})^3$	$20S_6$	15σ	h = 120, lineare Fkt., Rotation	quadratische Fkt.	kubische Fkt.
A_g	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1	-	$x^2+y^2+z^2$	-
T_{1g}	+3	$-2\cos(4\pi/5)$	$-2\cos(2\pi/5)$	0	-1	+3	$-2\cos(2\pi/5)$	$-2\cos(4\pi/5)$	0	-1	(R_x, R_y, R_z)	-	-
T_{2g}	+3	$-2\cos(2\pi/5)$	$-2\cos(4\pi/5)$	0	-1	+3	$-2\cos(4\pi/5)$	$-2\cos(2\pi/5)$	0	-1	-	-	-
G_g	+4	-1	-1	+1	0	+4	-1	-1	+1	0	-	-	-
H_g	+5	0	0	-1	+1	+5	0	0	-1	+1	-	$[2z^2-x^2-y^2, x^2-y^2, xy, xz, yz]$	-
A_u	+1	+1	+1	+1	+1	-1	-1	-1	-1	-1	-	-	-
T_{1u}	+3	$-2\cos(4\pi/5)$	$-2\cos(2\pi/5)$	0	-1	-3	$+2\cos(2\pi/5)$	$+2\cos(4\pi/5)$	0	+1	(x, y, z)	-	$[x(z^2+y^2), y(z^2+x^2), z(x^2+y^2)]$
T_{2u}	+3	$-2\cos(2\pi/5)$	$-2\cos(4\pi/5)$	0	-1	-3	$+2\cos(4\pi/5)$	$+2\cos(2\pi/5)$	0	+1	-	-	$[x^3, y^3, z^3]$
G_u	+4	-1	-1	+1	0	-4	+1	+1	-1	0	-	-	$[x(z^2-y^2), y(z^2-x^2), z(x^2-y^2), xyz]$
H_u	+5	0	0	-1	+1	-5	0	0	+1	-1	-	-	-

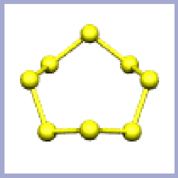
Quelle: http://www.pci.tu-bs.de/aggericke/PC2/Punktgruppen

Charakterentabelle für Punktgruppe D_{4d}

(x axis coincident with C'_2 axis)

D_{4d}	E	$2S_8$	$2C_4$	$2(S_8)^3$	C_2	$4C'_2$	$4\sigma_d$	h = 16, lineare Fkt., Rotation	quadratische Fkt.	kubische Fkt.
A_1	+1	+1	+1	+1	+1	+1	+1	-	x^2+y^2, z^2	-
A_2	+1	+1	+1	+1	+1	-1	-1	R_z	-	-
B_1	+1	-1	+1	-1	+1	+1	-1	-	-	-
B_2	+1	-1	+1	-1	+1	-1	+1	z	-	z^3, $z(x^2+y^2)$
E_1	+2	$+(2)^{½}$	0	$-(2)^{½}$	-2	0	0	(x, y)	-	(xz^2, yz^2) $[x(x^2+y^2), y(x^2+y^2)]$
E_2	+2	0	-2	0	+2	0	0	-	(x^2-y^2, xy)	$[xyz, z(x^2-y^2)]$
E_3	+2	$-(2)^{½}$	0	$+(2)^{½}$	-2	0	0	(R_x, R_y)	(xz, yz)	$[y(3x^2-y^2), x(x^2-3y^2)]$

D_{4d}



S_8

Anzahl der Symmetrieelemente	h = 16
Anzahl der irreduziblen Darstellungen	n = 7
abelsche Gruppe ?	nein
Untergruppen	C_s , C_2 , C_4 , D_2 , D_4 , C_{2v} , C_{4v} , S_8
chiral ?	nein

Quelle: http://www.pci.tu-bs.de/aggericke/PC2/Punktgruppen