CHARACTER TABLE FOR C_{nv} POINT GROUP

Character table for C_{2v} point group

	E	C_2 (z)	σ_v(xz)	σ_v(yz)	Linear Functions, Rotations	Quadratic
A_1	1	1	1	1	z	x^2, y^2, z^2
A_2	1	1	-1	-1	R_z	xy
B_1	1	-1	1	-1	x, R_y	xz
B_2	1	-1	-1	1	y, R_x	yz

Character table for C_{3v} point group

	E	$2C_3$ (z)	$3\sigma_v$	Linear Functions, Rotations	Quadratic
A_1	1	1	1	z	x^2+y^2, z^2
A_2	1	1	-1	R_z	
E	2	-1	0	(x, y) (R_x,R_y)	(x^2-y^2, xy) (xz, yz)

Character table for C_{4v} point group

	E	$2C_4$ (z)	C_2	$2\sigma_v$	$2\sigma_d$	Linear Functions, Rotations	Quadratic
A_1	1	1	1	1	1	z	x^2+y^2, z^2
A_2	1	1	1	-1	-1	R_z	
B_1	1	-1	1	1	-1		x^2-y^2
B_2	1	-1	1	-1	1		xy
E	2	0	-2	0	0	(x, y) (R_x, R_y)	(xz, yz)

Character table for C_{5v} point group

	E	$2C_5$ (z)	$2(C_5)^2$	$5\sigma_v$	Linear Functions, Rotations	Quadratic
A_1	1	1	1	1	z	x^2+y^2, z^2
A_2	1	1	1	-1	R_z	
E_1	2	$2\cos(2\pi/5)$	$2\cos(4\pi/5)$	0	(x, y) (R_x, R_y)	(xz, yz)
E_2	2	$2\cos(4\pi/5)$	$2\cos(2\pi/5)$	0		(x^2-y^2, xy)

Character table for C_{6v} point group

	E	$2C_6$ (z)	$2C_3$ (z)	C_2 (z)	$3\sigma_v$	$3\sigma_d$	Linear Functions, Rotations	Quadratic
A_1	1	1	1	1	1	1	z	x^2+y^2, z^2
A_2	1	1	1	1	-1	-1	R_z	
B_1	1	-1	1	-1	1	-1		
B_2	1	-1	1	-1	-1	1		
E_1	2	1	-1	-2	0	0	(x, y) (R_x, R_y)	(xz, yz)
E_2	2	-1	-1	2	0	0		(x^2-y^2, xy)