

D_{4h}	E	$2C_4$	C_2	$2C_2'$	$2C_2''$	i	$2S_4$	σ_h	$2\sigma_v$	$2\sigma_d$			
A_{1g}	1	1	1	1	1	1	1	1	1	1	R_z	$x^2 + y^2, z^2$	
A_{2g}	1	1	1	-1	-1	1	1	1	-1	-1			
B_{1g}	1	-1	1	1	-1	1	-1	1	1	-1	(R_x, R_y)	$x^2 - y^2$	
B_{2g}	1	-1	1	-1	1	1	-1	1	-1	1			
E_g	2	0	-2	0	0	2	0	-2	0	0	z	xy	
A_{1u}	1	1	1	1	1	-1	-1	-1	-1	-1			
A_{2u}	1	1	1	-1	-1	-1	-1	-1	1	1	(R_x, R_y)	(xz, yz)	
B_{1u}	1	-1	1	1	-1	-1	1	-1	-1	1			
B_{2u}	1	-1	1	-1	1	-1	1	-1	1	-1	z	z^3	
E_u	2	0	-2	0	0	-2	0	2	0	0			
$\Gamma_{x,y,z}$	3	1	-1	-1	-1	-3	-1	1	1	1	(x, y)	xyz	$z(x^2 - y^2)$
												$(xz^2, yz^2), [x(x^2 - 3y^2), y(3x^2 - y^2)]$	