

Character Table 10

The Groups I, I_h

I	E	$12C_5$	$12C_5^2$	$20C_3$	$15C_2$	
A	1	1	1	1	1	$\eta^\pm = \frac{1}{2} \left(1 \pm 5^{\frac{1}{2}} \right)$ $x^2+y^2+z^2$
T_1	3	η^+	η^-	0	-1	(x, y, z) (R_x, R_y, R_z)
T_2	3	η^-	η^+	0	-1	
G	4	-1	-1	1	0	
H	5	0	0	-1	1	$(2z^2 - x^2 - y^2,$ $\sqrt{3} (x^2 - y^2)$ $xy, yz, zx)$

I_h	E	$12C_5$	$12C_5^2$	$20C_3$	$15C_2$	i	$12S_{10}$	$12S_{10}^3$	$20S_6$	15σ	
A_g	1	1	1	1	1	1	1	1	1	1	$\eta^\pm = \frac{1}{2} \left(1 \pm 5^{\frac{1}{2}} \right)$ $x^2 + y^2 + z^2$
T_{1g}	3	η^+	η^-	0	-1	3	η^-	η^+	0	-1	(R_x, R_y, R_z)
T_{2g}	3	η^-	η^+	0	-1	3	η^+	η^-	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	$(2z^2 - x^2 - y^2,$ $\sqrt{3} (x^2 - y^2)$ (xy, yz, zx)
A_u	1	1	1	1	1	1	-1	-1	-1	-1	
T_{1u}	3	η^+	η^-	0	-1	3	η^-	η^+	0	1	(x, y, z)
T_{2u}	3	η^-	η^+	0	-1	3	η^+	η^-	0	1	
G_u	4	-1	-1	1	0	4	1	1	-1	0	
H_u	5	0	0	-1	1	5	0	0	1	-1	