

Character Table 11

The Groups $C_{\infty v}$ and $D_{\infty h}$

$C_{\infty v}$	E	$2C_{\infty}^{\phi}$	...	$\infty\sigma_v$		
$A_1 \equiv \Sigma^+$	1	1	...	1	z	$x^2 + y^2, z^2$
$A_2 \equiv \Sigma^-$	1	1	...	-1	R_z	
$E_1 \equiv \Pi$	2	$2 \cos \phi$	...	0	$(x, y) (R_x, R_y)$	(xz, yz)
$E_2 \equiv \Delta$	2	$2 \cos 2\phi$	...	0		$(x^2 - y^2, 2xy)$
$E_3 \equiv \Phi$	2	$2 \cos 3\phi$	...	0		
...		
...		

$D_{\infty h}$	E	$2C_{\infty}^{\phi}$	...	$\infty\sigma_v$	i	$2S_{\infty}^{\phi}$...	∞C_2	
Σ_g^+	1	1	...	1	1	1	...	1	$x^2 + y^2, z^2$
Σ_g^-	1	1	...	-1	1	1	...	-1	R_z
Π_g	2	$2 \cos \phi$	...	0	2	$-2 \cos \phi$	...	0	$(R_x, R_y) (xz, yz)$
Δ_g	2	$2 \cos 2\phi$	...	0	2	$2 \cos 2\phi$	...	0	$(x^2 - y^2, 2xy)$
...	
Σ_u^+	1	1	...	1	-1	-1	...	-1	z
Σ_u^-	1	1	...	-1	-1	-1	...	1	
Π_u	2	$2 \cos \phi$	...	0	-2	$2 \cos \phi$	...	0	(x, y)
Δ_u	2	$2 \cos 2\phi$	...	0	-2	$-2 \cos 2\phi$	...	0	
...	