9.4. Punktgruppen/Kristallklassen (Forts.)

9.4.2. Übersichtstabelle der 2- und 3-dimensionalen Punktgruppen

Tabelle der 2-dimensionalen Punktgruppen

Nr.	Hermann-Mauguin	Schön-flies-	Koordinaten-System	Nr.	Hermann-Mauguin	Schön-flies-	Koordinaten-System
	Symbol				Symbol		
1	1	C_1	schiefwinklig	7	311	C_3	hexagonal
2	2	C_2	(a $\neq$ b; γ beliebig)	8	3m1	C_{3v}	a = b; $\gamma = 120^o$)
				9	611	C_6	
3	1m1	C_m	rechtwinklig	10	6mm	C_{6v}	
4	2mm	C_{2v}	(a $\neq$ b; $\gamma = 90^o$)				
5	411	C_4	quadratisch				
6	4mm	C_{4v}	(a = b; $\gamma = 90^o$)				

Tabelle der 3-dimensionalen Punktgruppen/Kristallklassen

Nr.	Herman-Mauguin		Schön-	Koordinaten-	Nr.	Herman-Mauguin		Schön-	Koordinaten-
	Kurz-	Lang-	flies-	system		Kurz-	Lang-	flies-	system
	symbol					symbol			
1	1	1	C_1	triklin	16	3	3	C_3	trigonal
2	$\bar{1}$	$\bar{1}$	C_i	($a \neq b \neq c; \alpha \neq \beta \neq \gamma$)	17	$\bar{3}$	$\bar{3}$	S_6	(hexagonale A.)
					18	3m1	3m1	C_{3v}	($a = b \neq c$
3	m	1m1	C_s	monoklin	19	321	321	D_3	$\alpha = \beta = 90^o$;
4	2	121	C_2	($a \neq b \neq c$,	20	$\bar{3}m1$	$\bar{3}\frac{2}{m}1$	D_{3d}	$\gamma = 120^o$)
5	$\frac{2}{m}$	$1\frac{2}{m}1$	C_{2h}	$\alpha = \gamma = 90^o; \beta \neq 90^o$)					
					21	6	6	C_6	hexagonal
6	mm2	mm2	C_{2v}	orthorhombisch	22	$\bar{6}$	$\bar{6}$	C_{3h}	($a = b \neq c$
7	222	222	D_2	($a \neq b \neq c$,	23	$\frac{6}{m}$	$\frac{6}{m}$	C_{6h}	$\alpha = \beta = 90^o$;
8	mmm	$\frac{2}{m}\frac{2}{m}\frac{2}{m}$	D_{2h}	$\alpha = \beta = \gamma = 90^o$)	24	$\bar{6}m2$	$\bar{6}m2$	D_{3h}	$\gamma = 120^o$)
					25	6mm	6mm	C_{6v}	
9	4	4	C_4	tetragonal	26	622	622	D_6	
10	$\bar{4}$	$\bar{4}$	S_4	($a = b \neq c$	27	$\frac{6}{m}mm$	$\frac{6}{m}\frac{2}{m}\frac{2}{m}$	D_{6h}	
11	$\frac{4}{m}$	$\frac{4}{m}$	C_{4h}	$\alpha = \beta = \gamma = 90^o$)					
12	4mm	4mm	C_{4v}		28	23	23	T	kubisch
13	$\bar{4}2m$	$\bar{4}2m$	D_{2d}		29	$m\bar{3}$	$\frac{2}{m}\bar{3}$	T_h	($a = b = c$
14	422	422	D_4		30	$\bar{4}3m$	$\bar{4}3m$	T_d	$\alpha = \beta = \gamma = 90^o$)
15	$\frac{4}{m}mm$	$\frac{4}{m}\frac{2}{m}\frac{2}{m}$	D_{4h}		31	432	432	O	
					32	$m\bar{3}m$	$\frac{4}{m}\bar{3}\frac{2}{m}$	O_h	

9.5. Punktgruppenbestimmung