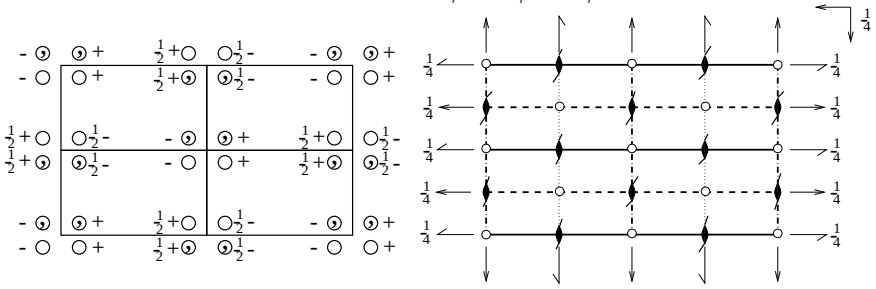
2.4. Raumgruppen (Forts.)

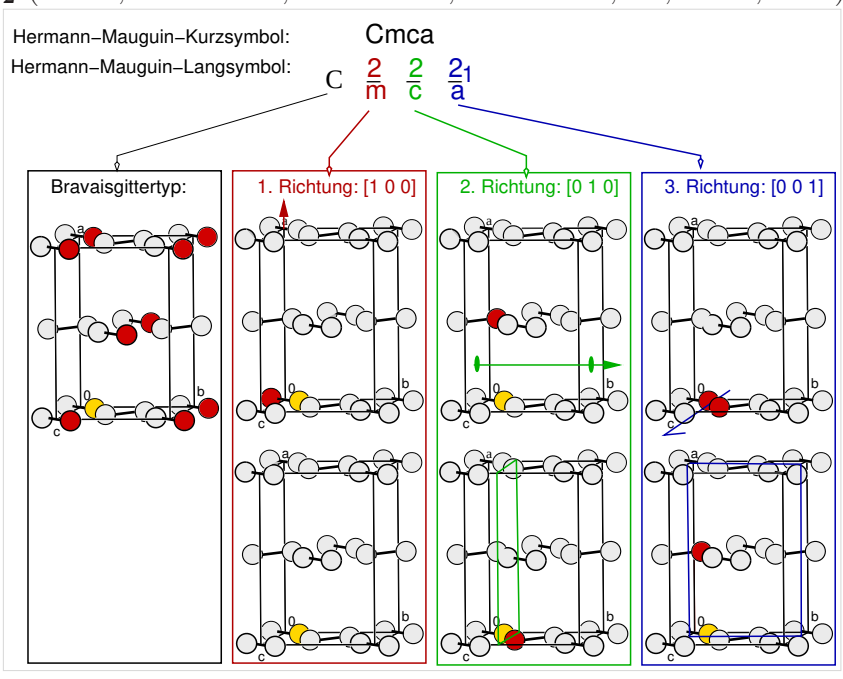
Auszug aus den *Internationalen Tabellen*

Cmca

Orthorhombic mmm C 2/m 2/c 2_1/a No. 64 D_{2h}^{18}



Origin at centre (2/m)

Number of positions, Wyckoff notation, and point symmetry			Co-ordinates of equivalent positions	Conditions limiting possible reflections
			(0,0,0; $\frac{1}{2},\frac{1}{2},0$)+	
16	g	1	x, y, z; x, $\bar{y}$, $\bar{z}$; x, $\frac{1}{2}-y$, $\frac{1}{2}+z$; x, $\frac{1}{2}+y$, $\frac{1}{2}-z$; $\bar{x}$, $\bar{y}$, $\bar{z}$; $\bar{x}$, y, z; $\bar{x}$, $\frac{1}{2}+y$, $\frac{1}{2}-z$; $\bar{x}$, $\frac{1}{2}-y$, $\frac{1}{2}+z$.	hkl: h+k=2n 0kl: (k=2n) h0l: l=2n; (h=2n) hk0: h=2n; (k=2n) h00: (h=2n) 0k0: (k=2n) 00l: (l=2n)
				Special: as above, plus
8	f	m	0, y, z; 0, $\bar{y}$, $\bar{z}$; $\frac{1}{2}$, y, $\frac{1}{2}-z$; $\frac{1}{2}$, $\bar{y}$, $\frac{1}{2}+z$.	no extra conditions
8	e	2	$\frac{1}{4}$, y, $\frac{1}{4}$; $\frac{3}{4}$, $\bar{y}$, $\frac{3}{4}$; $\frac{3}{4}$, y, $\frac{1}{4}$; $\frac{1}{4}$, $\bar{y}$, $\frac{3}{4}$.	hkl: h=2n; (k=2n)
8	d	2	x, 0, 0; $\bar{x}$, 0, 0, x, $\frac{1}{2}$, $\frac{1}{2}$; $\bar{x}$, $\frac{1}{2}$, $\frac{1}{2}$.	hkl: k+l=2n; (l+h=2n)
8	c	$\bar{1}$	$\frac{1}{4}$, $\frac{1}{4}$, 0; $\frac{1}{4}$, $\frac{3}{4}$, 0; $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{2}$; $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{2}$;.	hkl: h,l=2n; (k=2n)
4	b	2/m	$\frac{1}{2}$, 0, 0; $\frac{1}{2}$, $\frac{1}{2}$, $\frac{1}{2}$	
4	a	2/m	0, 0, 0; 0, $\frac{1}{2}$, $\frac{1}{2}$.	
			Symmetry of special projections	
(001) pmm; a'=a/2, b'=b/2			(100) pgm; b'=b/2, c'=c	(010) pmm; c'=c/2, a'=a/2

Beispiel: I_2 (Cmca, a=7.255 Å, b=4.795 Å, c=9.780 Å, I:0, 0.150,0.117)