

2.4. Raumgruppen (Forts.)

Auszug aus den Internationalen Tabellen

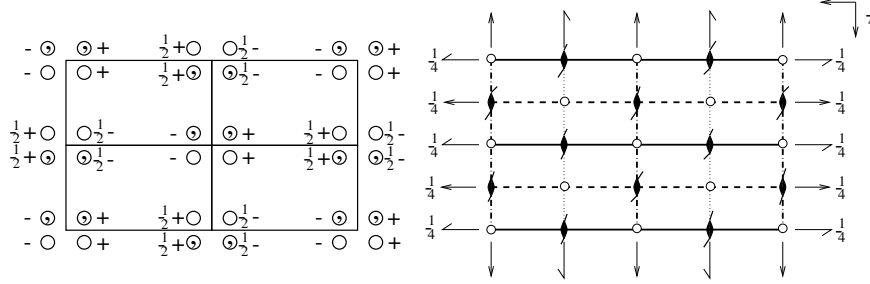
Cmca
D_{2h}¹⁸

Orthorhombic

mmm

C 2/m 2/c 2₁/a

No. 64



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; 1/2, 1/2, 0)+ | |
| 16 | g | 1 | x, y, z; x, \bar{y} , \bar{z} ; x, 1/2 - y, 1/2 + z; x, 1/2 + y, 1/2 - z; \bar{x} , \bar{y} , \bar{z} ; \bar{x} , y, z; \bar{x} , 1/2 + y, 1/2 - z; \bar{x} , 1/2 - y, 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) |
| 8 | f | m | 0, y, z; 0, \bar{y} , \bar{z} ; 1/2, y, 1/2 - z; 1/2, \bar{y} , 1/2 + z. | Special: as above, plus no extra conditions |
| 8 | e | 2 | 1/4, y, 1/4; 3/4, \bar{y} , 3/4; 3/4, y, 1/4; 1/4, \bar{y} , 3/4. | hkl: h=2n; (k=2n) |
| 8 | d | 2 | x, 0, 0; \bar{x} , 0, 0, x, 1/2, 1/2; \bar{x} , 1/2, 1/2. | hkl: k+l=2n; (l+h=2n) |
| 8 | c | $\bar{1}$ | 1/4, 1/4, 0; 1/4, 3/4, 0; 1/4, 1/4, 1/2; 1/4, 3/4, 1/2. | hkl: h,l=2n; (k=2n) |
| 4 | b | 2/m | 1/2, 0, 0; 1/2, 1/2, 1/2 | |
| 4 | a | 2/m | 0, 0, 0; 0, 1/2, 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: I₂ (Cmca, a=7.255 Å, b=4.795 Å, c=9.780 Å, I:0, 0.150,0.117)

