Monoclinic   6. SCANNING TABLES   Laue class $C_{2h} - 2/m$

No. 5   C2

C_2^3

CELL CHOICE 1

$$\mathcal{G} = C121 \quad \text{UNIQUE AXIS } b$$

$$\mathcal{G} = A112 \quad \text{UNIQUE AXIS } c$$

Orientation orbit (hkl)	Conventional basis of the scanning group $\mathbf{a}'$ $\mathbf{b}'$ $\mathbf{d}$			Scanning group $\mathcal{H}$	Linear orbit $s\mathbf{d}$	Sectional layer group $\mathcal{L}(s\mathbf{d})$	
UNIQUE AXIS b (010) UNIQUE AXIS c (001)	$\mathbf{c}$ $\mathbf{a}$	$\mathbf{a}$ $\mathbf{b}$	$\mathbf{b}$ $\mathbf{c}$	$A112$	$[s\mathbf{d}, (s+\frac{1}{2})\mathbf{d}]$	$p112$	L03
UNIQUE AXIS b ($n0m$) UNIQUE AXIS c ($mn0$)	$\mathbf{b}$ $\mathbf{c}$	$n\mathbf{c} - m\mathbf{a}$ $n\mathbf{a} - m\mathbf{b}$	$p\mathbf{c} + q\mathbf{a}$ $p\mathbf{a} + q\mathbf{b}$				
		n odd p even	q odd	$B211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s+\frac{1}{2})\mathbf{d}]$	$p211$ $p2_111$ $p1$	L08 L09 L01
		n even p odd	m odd	$C211$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ $[s\mathbf{d}, -s\mathbf{d}]$	$c211$ $\widehat{p}1$	L10 L01
		n odd p odd		$I211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s+\frac{1}{2})\mathbf{d}]$	$p211$ $p2_111 (\mathbf{b}'/4)$ $p1$	L08 L09 L01

No. 5   C2

C_2^3

CELL CHOICE 2

$$\mathcal{G} = A121 \quad \text{UNIQUE AXIS } b$$

$$\mathcal{G} = B112 \quad \text{UNIQUE AXIS } c$$

Orientation orbit (hkl)	Conventional basis of the scanning group $\mathbf{a}'$ $\mathbf{b}'$ $\mathbf{d}$			Scanning group $\mathcal{H}$	Linear orbit $s\mathbf{d}$	Sectional layer group $\mathcal{L}(s\mathbf{d})$	
UNIQUE AXIS b (010) UNIQUE AXIS c (001)	$\mathbf{c}$ $\mathbf{a}$	$\mathbf{a}$ $\mathbf{b}$	$\mathbf{b}$ $\mathbf{c}$	$B112$	$[s\mathbf{d}, (s+\frac{1}{2})\mathbf{d}]$	$p112$	L03
UNIQUE AXIS b ($n0m$) UNIQUE AXIS c ($mn0$)	$\mathbf{b}$ $\mathbf{c}$	$n\mathbf{c} - m\mathbf{a}$ $n\mathbf{a} - m\mathbf{b}$	$p\mathbf{c} + q\mathbf{a}$ $p\mathbf{a} + q\mathbf{b}$				
		n odd	m even q odd	$C211$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ $[s\mathbf{d}, -s\mathbf{d}]$	$c211$ $\widehat{p}1$	L10 L01
			m odd q odd	$I211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s+\frac{1}{2})\mathbf{d}]$	$p211$ $p2_111 (\mathbf{b}'/4)$ $p1$	L08 L09 L01
		p odd	m odd q even	$B211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s+\frac{1}{2})\mathbf{d}]$	$p211$ $p2_111$ $p1$	L08 L09 L01

No. 5   C2 C_2^3

$$\mathcal{G} = I121 \quad \text{UNIQUE AXIS } b$$

CELL CHOICE 3

$$\mathcal{G} = I112 \quad \text{UNIQUE AXIS } c$$

Orientation orbit (hkl)	Conventional basis of the scanning group $\mathbf{a}'$ $\mathbf{b}'$ $\mathbf{d}$			Scanning group $\mathcal{H}$	Linear orbit $s\mathbf{d}$	Sectional layer group $\mathcal{L}(s\mathbf{d})$	
UNIQUE AXIS b (010)	$\mathbf{c}$	$\mathbf{a}$	$\mathbf{b}$	$I112$	$[s\mathbf{d}, (s+\frac{1}{2})\mathbf{d}]$	$p112$	L03
UNIQUE AXIS c (001)	$\mathbf{a}$	$\mathbf{b}$	$\mathbf{c}$				
UNIQUE AXIS b ($n0m$)	$\mathbf{b}$	$n\mathbf{c} - m\mathbf{a}$	$p\mathbf{c} + q\mathbf{a}$				
UNIQUE AXIS c ($mn0$)	$\mathbf{c}$	$n\mathbf{a} - m\mathbf{b}$	$p\mathbf{a} + q\mathbf{b}$				
		n odd	m even	$I211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p211$	L08
		p even	q odd		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$	$p2_111$ $(\mathbf{b}'/4)$	L09
		or			$[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p1$	L01
		n even	m odd				
		p odd	q even				
		p odd	q odd	$B211$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p211$	L08
					$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$	$p2_111$	L09
					$[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p1$	L01
		n odd	m odd	$C211$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$	$c211$	L10
					$[s\mathbf{d}, -s\mathbf{d}]$	$\widehat{p}1$	L01

Geometric class $C_s - 11m$

No. 6   Pm C_s^1

$$\mathcal{G} = P1m1 \quad \text{UNIQUE AXIS } b$$

$$\mathcal{G} = P11m \quad \text{UNIQUE AXIS } c$$

Orientation orbit (hkl)	Conventional basis of the scanning group $\mathbf{a}'$ $\mathbf{b}'$ $\mathbf{d}$			Scanning group $\mathcal{H}$	Linear orbit $s\mathbf{d}$	Sectional layer group $\mathcal{L}(s\mathbf{d})$	
UNIQUE AXIS b (010)	$\mathbf{c}$	$\mathbf{a}$	$\mathbf{b}$	$P11m$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$	$p11m$	L04
UNIQUE AXIS c (001)	$\mathbf{a}$	$\mathbf{b}$	$\mathbf{c}$		$[s\mathbf{d}, -s\mathbf{d}]$	$p1$	L01
UNIQUE AXIS b ($n0m$)	$\mathbf{b}$	$n\mathbf{c} - m\mathbf{a}$	$p\mathbf{c} + q\mathbf{a}$	$Pm11$	$s\mathbf{d}$	$pm11$	L11
UNIQUE AXIS c ($mn0$)	$\mathbf{c}$	$n\mathbf{a} - m\mathbf{b}$	$p\mathbf{a} + q\mathbf{b}$				