

Laue class $C_{2h} - 2/m$

6. SCANNING TABLES

Monoclinic

 No. 11 $P2_1/m$
 $\mathcal{G} = P12_1/m1$ UNIQUE AXIS b
 C_{2h}^2
 $\mathcal{G} = P112_1/m$ UNIQUE AXIS c

Orientation orbit (hkl)	Conventional basis of the scanning group \mathbf{a}' \mathbf{b}' \mathbf{d}	Scanning group \mathcal{H}	Linear orbit \mathbf{sd}	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS b (010)	\mathbf{c} \mathbf{a} \mathbf{b}	$P112_1/m$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p\bar{1}$	L02
UNIQUE AXIS c (001)	\mathbf{a} \mathbf{b} \mathbf{c}		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm\mathbf{sd}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p11m$ $p1$	L04 L01
UNIQUE AXIS b ($n0m$)	\mathbf{b} $n\mathbf{c} - m\mathbf{a}$ $p\mathbf{c} + q\mathbf{a}$	$P2_1/m11$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$	$p2_1/m11$	L15
UNIQUE AXIS c ($mn0$)	\mathbf{c} $na - mb$ $pa + qb$		$[\mathbf{sd}, -\mathbf{sd}]$	$pm11$ ($\mathbf{a}'/4$)	L11

 No. 12 $C2/m$
 $\mathcal{G} = C12/m1$ UNIQUE AXIS b
 C_{2h}^3

CELL CHOICE 1

 $\mathcal{G} = A112/m$ UNIQUE AXIS c

Orientation orbit (hkl)	Conventional basis of the scanning group \mathbf{a}' \mathbf{b}' \mathbf{d}	Scanning group \mathcal{H}	Linear orbit \mathbf{sd}	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS b (010)	\mathbf{c} \mathbf{a} \mathbf{b}	$A112/m$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p112/m$	L06
UNIQUE AXIS c (001)	\mathbf{a} \mathbf{b} \mathbf{c}		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm\mathbf{sd}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p112/b$ ($\mathbf{b}/4$) $p112$	L07 L03
UNIQUE AXIS b ($n0m$)	\mathbf{b} $n\mathbf{c} - m\mathbf{a}$ $p\mathbf{c} + q\mathbf{a}$	$B2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p2/m11$	L14
UNIQUE AXIS c ($mn0$)	\mathbf{c} $na - mb$ $pa + qb$		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm\mathbf{sd}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2_1/m11$ ($\mathbf{a}'/4$) $pm11$	L15 L11
	n even m odd p odd		$C2/m11$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ $[\mathbf{sd}, -\mathbf{sd}]$	$c2/m11$ $cm11$
	n odd p even q odd	$I2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p2/m11$	L14
	n odd p odd		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm\mathbf{sd}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2_1/m11$ [$(\mathbf{a}' + \mathbf{b}')/4$] $pm11$	L15 L11

No. 12 $C2/m$

C_{2h}^3

$$\mathcal{G} = A12/m1 \quad \text{UNIQUE AXIS } b$$

CELL CHOICE 2

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

Orientation orbit (<i>hkl</i>)	Conventional basis of the scanning group a' b' d	Scanning group \mathcal{H}	Linear orbit sd	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS <i>b</i> (010)	c a b	$B112/m$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p112/m$	L06
UNIQUE AXIS <i>c</i> (001)	a b c		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p112/a$ (a /4) $p112$	L07 L03
UNIQUE AXIS <i>b</i> (<i>n</i> 0 <i>m</i>)	b $nc - ma$ $pc + qa$				
UNIQUE AXIS <i>c</i> (<i>mn</i> 0)	c $na - mb$ $pa + qb$ <i>n</i> odd <i>m</i> even <i>q</i> odd <i>m</i> odd <i>q</i> odd	$C2/m11$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ $[s\mathbf{d}, -s\mathbf{d}]$	$c2/m11$ $cm11$	L18 L13
		$I2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2/m11$ $p2_1/m11$ [(a' + b')/4] $pm11$	L14 L15 L11
	<i>p</i> odd <i>q</i> even	$B2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2/m11$ $p2_1/m11$ (a' /4) $pm11$	L14 L15 L11

No. 12 $C2/m$

C_{2h}^3

$$\mathcal{G} = I12/m1 \quad \text{UNIQUE AXIS } b$$

CELL CHOICE 3

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

Orientation orbit (<i>hkl</i>)	Conventional basis of the scanning group a' b' d	Scanning group \mathcal{H}	Linear orbit sd	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS <i>b</i> (010)	c a b	$I112/m$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p112/m$	L06
UNIQUE AXIS <i>c</i> (001)	a b c		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p112/n$ [(a + b)/4] $p112$	L07 L03
UNIQUE AXIS <i>b</i> (<i>n</i> 0 <i>m</i>)	b $nc - ma$ $pc + qa$				
UNIQUE AXIS <i>c</i> (<i>mn</i> 0)	c $na - mb$ $pa + qb$ <i>n</i> odd <i>m</i> even <i>p</i> even <i>q</i> odd or <i>n</i> even <i>m</i> odd <i>p</i> odd <i>q</i> even <i>p</i> odd <i>q</i> odd	$I2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2/m11$ $p2_1/m11$ [(a' + b')/4] $pm11$	L14 L15 L11
		$B2/m11$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$ $[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm s\mathbf{d}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p2/m11$ $p2_1/m11$ (a' /4) $pm11$	L14 L15 L11
	<i>n</i> odd <i>m</i> odd	$C2/m11$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ $[s\mathbf{d}, -s\mathbf{d}]$	$c2/m11$ $cm11$	L18 L13