

## Monoclinic

## 6. SCANNING TABLES

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

 No. 7  $Pc$ 
 $C_s^2$ 

$$\mathcal{G} = P1c1 \quad \text{UNIQUE AXIS } b$$

CELL CHOICE 1

$$\mathcal{G} = P11a \quad \text{UNIQUE AXIS } c$$

Orientation orbit ( <i>hkl</i> )	Conventional basis of the scanning group <b>a'</b> <b>b'</b> <b>d</b>	Scanning group $\mathcal{H}$	Linear orbit <b>sd</b>	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS <i>b</i> (010)	<b>c</b> <b>a</b> <b>b</b>	$P11a$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ [ $\mathbf{sd}, -\mathbf{sd}$ ]	$p11a$	L05
UNIQUE AXIS <i>c</i> (001)	<b>a</b> <b>b</b> <b>c</b>			$p1$	L01
UNIQUE AXIS <i>b</i> ( <i>n0m</i> )	<b>b</b> $n\mathbf{c} - m\mathbf{a}$ $p\mathbf{c} + q\mathbf{a}$				
UNIQUE AXIS <i>c</i> ( <i>mn0</i> )	<b>c</b> $n\mathbf{a} - m\mathbf{b}$ $p\mathbf{a} + q\mathbf{b}$ <i>n</i> odd <i>m</i> even <i>q</i> odd <i>m</i> odd <i>q</i> odd <i>m</i> odd <i>p</i> odd <i>q</i> even	$Pb11$	$\mathbf{sd}$	$pb11$	L12
		$Pn11$	[ $\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}$ ]	$p1$	L01
		$Pc11$	[ $\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}$ ]	$p1$	L01

 No. 7  $Pc$ 
 $C_s^2$ 

$$\mathcal{G} = P1n1 \quad \text{UNIQUE AXIS } b$$

CELL CHOICE 2

$$\mathcal{G} = P11n \quad \text{UNIQUE AXIS } c$$

Orientation orbit ( <i>hkl</i> )	Conventional basis of the scanning group <b>a'</b> <b>b'</b> <b>d</b>	Scanning group $\mathcal{H}$	Linear orbit <b>sd</b>	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS <i>b</i> (010)	<b>c</b> <b>a</b> <b>b</b>	$P11n$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$ [ $\mathbf{sd}, -\mathbf{sd}$ ]	$p11n$	L05
UNIQUE AXIS <i>c</i> (001)	<b>a</b> <b>b</b> <b>c</b>			$p1$	L01
UNIQUE AXIS <i>b</i> ( <i>n0m</i> )	<b>b</b> $n\mathbf{c} - m\mathbf{a}$ $p\mathbf{c} + q\mathbf{a}$				
UNIQUE AXIS <i>c</i> ( <i>mn0</i> )	<b>c</b> $n\mathbf{a} - m\mathbf{b}$ $p\mathbf{a} + q\mathbf{b}$ <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 <i>n</i> odd <i>m</i> odd	$Pn11$	[ $\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}$ ]	$p1$	L01
		$Pc11$	[ $\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}$ ]	$p1$	L01
		$Pb11$	$\mathbf{sd}$	$pb11$	L12

No. 7  $Pc$

$C_s^2$

CELL CHOICE 3

$$\mathcal{G} = P1a1 \text{ UNIQUE AXIS } b$$

$$\mathcal{G} = P11b \text{ UNIQUE AXIS } c$$

Orientation orbit ( $hkl$ )	Conventional basis of the scanning group $\mathbf{a}' \quad \mathbf{b}' \quad \mathbf{d}$	Scanning group $\mathcal{H}$	Linear orbit $\mathbf{sd}$	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS $b$ (010)	$\mathbf{c} \quad \mathbf{a} \quad \mathbf{b}$	$P11b$	$0\mathbf{d}, \frac{1}{2}\mathbf{d}$	$p11b$	L05
UNIQUE AXIS $c$ (001)	$\mathbf{a} \quad \mathbf{b} \quad \mathbf{c}$		$[\mathbf{sd}, -\mathbf{sd}]$	$p1$	L01
UNIQUE AXIS $b$ ( $n0m$ )	$\mathbf{b} \quad n\mathbf{c} - m\mathbf{a} \quad p\mathbf{c} + q\mathbf{a}$				
UNIQUE AXIS $c$ ( $mn0$ )	$\mathbf{c} \quad n\mathbf{a} - m\mathbf{b} \quad pa + qb$ $n$ odd $p$ even $n$ even $p$ odd $n$ odd $p$ odd	$Pc11$	$[\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}]$	$p1$	L01
		$Pb11$	$\mathbf{sd}$	$pb11$	L12
		$Pn11$	$[\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}]$	$p1$	L01

No. 8  $Cm$

$C_s^3$

CELL CHOICE 1

$$\mathcal{G} = C1m1 \text{ UNIQUE AXIS } b$$

$$\mathcal{G} = A11m \text{ UNIQUE AXIS } c$$

Orientation orbit ( $hkl$ )	Conventional basis of the scanning group $\mathbf{a}' \quad \mathbf{b}' \quad \mathbf{d}$	Scanning group $\mathcal{H}$	Linear orbit $\mathbf{sd}$	Sectional layer group $\mathcal{L}(\mathbf{sd})$	
UNIQUE AXIS $b$ (010)	$\mathbf{c} \quad \mathbf{a} \quad \mathbf{b}$	$A11m$	$[0\mathbf{d}, \frac{1}{2}\mathbf{d}]$	$p11m$	L04
UNIQUE AXIS $c$ (001)	$\mathbf{a} \quad \mathbf{b} \quad \mathbf{c}$		$[\frac{1}{4}\mathbf{d}, \frac{3}{4}\mathbf{d}]$ $[\pm\mathbf{sd}, (\pm s + \frac{1}{2})\mathbf{d}]$	$p11b$	L05
				$p1$	L01
UNIQUE AXIS $b$ ( $n0m$ )	$\mathbf{b} \quad n\mathbf{c} - m\mathbf{a} \quad p\mathbf{c} + q\mathbf{a}$				
UNIQUE AXIS $c$ ( $mn0$ )	$\mathbf{c} \quad n\mathbf{a} - m\mathbf{b} \quad pa + qb$ $n$ odd $p$ even $n$ even $p$ odd $n$ odd $p$ odd	$Bm11$	$[\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}]$	$pm11$	L11
		$Cm11$	$\mathbf{sd}$	$cm11$	L13
		$Im11$	$[\mathbf{sd}, (s + \frac{1}{2})\mathbf{d}]$	$pm11$	L11