

Ama2

No. 40

 C_{2v}^{16}

Axes		Coordinates	Wyckoff positions		
			4a	4b	8c
I Maximal translationengleiche subgroups					
[2] A1a1 (9)			4a	4a	4×2a
≅ C1c1	c, -b, a	$z, -y, x$			
[2] Pm11 (6)		$\mathbf{a}, \frac{1}{2}(\mathbf{b}-\mathbf{c}), \frac{1}{2}(\mathbf{b}+\mathbf{c})$	2c	1a; 1b	2×2c
≅ P1m1	$\frac{1}{2}(\mathbf{b}+\mathbf{c}), \mathbf{a}, \frac{1}{2}(\mathbf{b}-\mathbf{c})$	$y+z, x+\frac{1}{4}, y-z$			
[2] A112 (5)			2a; 2b	4c	2×4c
II Maximal klassengleiche subgroups					
Loss of centring translations					
[2] Pnn2 (34)			2a; 2b	4c	2×4c
[2] Pna2 ₁ (33)		$x, y+\frac{1}{4}, z$	4a	4a	2×4a
[2] Pmn2 ₁ (31)		$x+\frac{1}{4}, y+\frac{1}{4}, z$	4b	2×2a	2×4b
[2] Pma2 (28)			2a; 2b	2×2c	2×4d
Enlarged unit cell, isomorphic					
[3] Ama2	3a, b, c	$\frac{1}{3}x, y, z; \pm(\frac{1}{3}, 0, 0)$	4a; 8c	4b; 8c	3×8c
[p] Ama2	pa, b, c	$\frac{1}{p}x, y, z; +(\frac{u}{p}, 0, 0)$	$4a; \frac{p-1}{2} \times 8c$	$4b; \frac{p-1}{2} \times 8c$	$p \times 8c$
		$p = \text{prime} > 2; u = 1, \dots, p-1$			
[3] Ama2	a, 3b, c	$x, \frac{1}{3}y, z; \pm(0, \frac{1}{3}, 0)$	4a; 8c	3×4b	3×8c
[p] Ama2	a, pb, c	$x, \frac{1}{p}y, z; +(\frac{u}{p}, 0, 0)$	$4a; \frac{p-1}{2} \times 8c$	$p \times 4b$	$p \times 8c$
		$p = \text{prime} > 2; u = 1, \dots, p-1$			
[3] Ama2	a, b, 3c	$x, y, \frac{1}{3}z; \pm(0, 0, \frac{1}{3})$	3×4a	3×4b	3×8c
[p] Ama2	a, b, pc	$x, y, \frac{1}{p}z; +(\frac{u}{p}, 0, 0)$	$p \times 4a$	$p \times 4b$	$p \times 8c$
		$p = \text{prime} > 2; u = 1, \dots, p-1$			

Nonconventional settings

interchange letters and sequences in Hermann–Mauguin symbols, axes and coordinates:

B2mb	$A \rightarrow B; C \rightarrow A$	$a \rightarrow b; c \rightarrow a$	$\mathbf{a} \rightarrow \mathbf{b} \rightarrow \mathbf{c} \rightarrow \mathbf{a}$	$x \rightarrow y \rightarrow z \rightarrow x$
Cc2m	$A \rightarrow C; C \rightarrow B$	$a \rightarrow c; c \rightarrow b$	$\mathbf{a} \leftarrow \mathbf{b} \leftarrow \mathbf{c} \leftarrow \mathbf{a}$	$x \leftarrow y \leftarrow z \leftarrow x$
Bbm2	$A \rightarrow B$	$a \rightarrow b$	$\mathbf{a} \rightleftharpoons -\mathbf{b}$	$x \rightleftharpoons -y$
C2cm	$A \rightleftharpoons C$	$a \rightleftharpoons c$	$\mathbf{a} \rightleftharpoons -\mathbf{c}$	$x \rightleftharpoons -z$
Am2a	$C \rightarrow B$	$c \rightarrow b$	$\mathbf{b} \rightleftharpoons -\mathbf{c}$	$y \rightleftharpoons -z$