β-B (R-105) Structure: A_hR105_166_ac9h4i-001

This structure originally had the label `A_hR105_166_bc9h4i`. Calls to that address will be redirected here.

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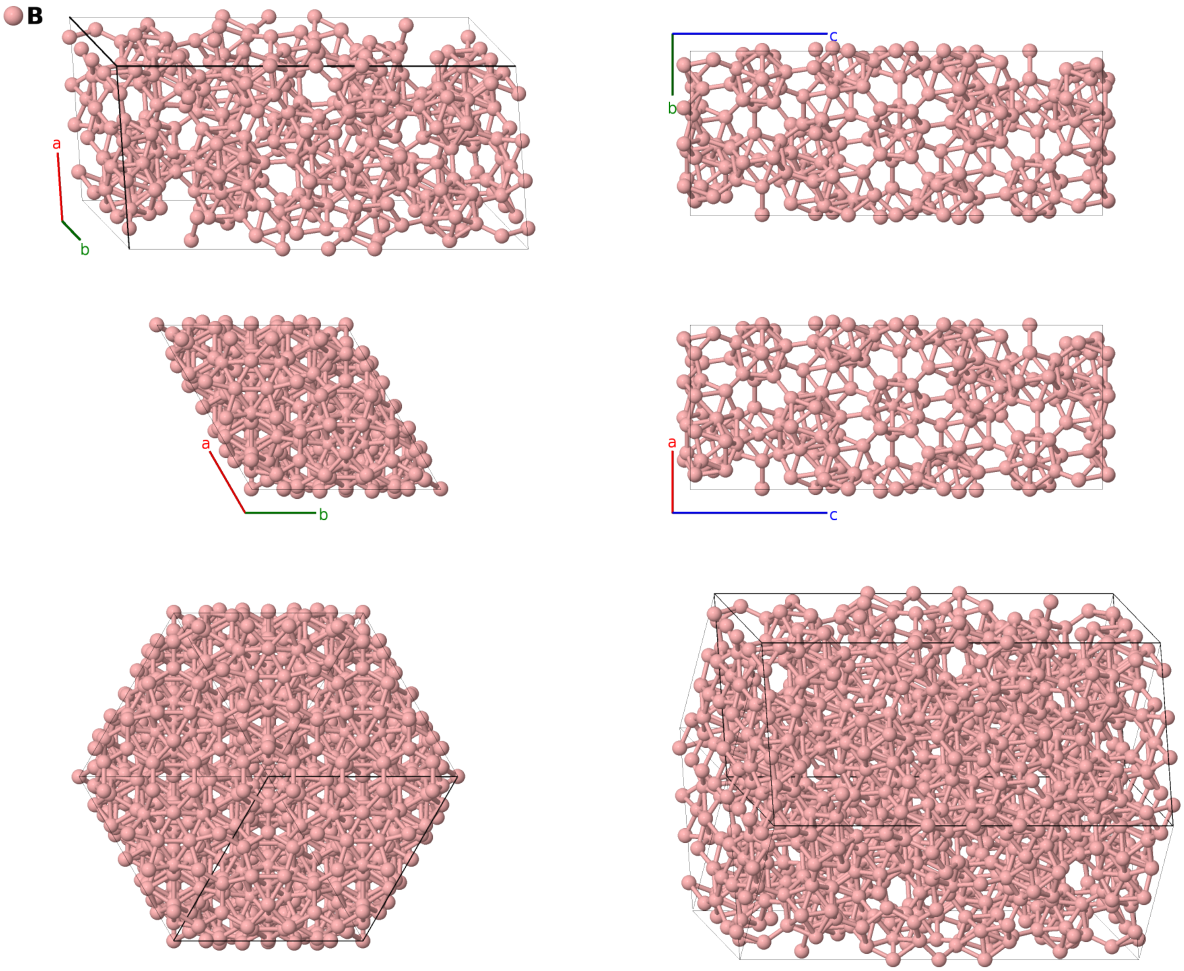
https://aflow.org/p/Y6TF

https://aflow.org/p/A_hR105_166_ac9h4i-001



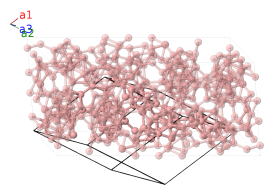
Prototype	B
AFLOW prototype label	A_hR105_166_ac9h4i-001
ICSD	14288
Pearson symbol	hR105
Space group number	166
Space group symbol	$R\bar{3}m$

AFLOW prototype command `aflow --proto=A_hR105_166_ac9h4i-001`
`--params=`$a, c/a, x_2, x_3, z_3, x_4, z_4, x_5, z_5, x_6, z_6, x_7, z_7, x_8, z_8, x_9, z_9, x_{10}, z_{10}, x_{11}, z_{11}, x_{12}, y_{12}, z_{12}, x_{13}, y_{13}, z_{13}, x_{14}, y_{14}, z_{14}, x_{15}, y_{15}, z_{15}$

- This is apparently the ground state of boron, with 105 atoms in the unit cell.
- (Donohue, 1982) gives two possible sets of internal coordinates for the atoms on page 64. We use the second set (Geist, 1970), as it has no partially filled sites.
- Note the relationship between the icosahedra in this structure, α-B and T-50 B.
- Hexagonal settings for rhombohedral structures can be obtained with the option `--hex`.

Rhombohedral primitive vectors

$$\mathbf{a_1} = \frac{1}{2}a\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + \frac{1}{3}c\,\hat{\mathbf{z}}$$
$$\mathbf{a_2} = \frac{1}{\sqrt{3}}a\,\hat{\mathbf{y}} + \frac{1}{3}c\,\hat{\mathbf{z}}$$
$$\mathbf{a_3} = -\frac{1}{2}a\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + \frac{1}{3}c\,\hat{\mathbf{z}}$$



Basis vectors

		Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$	=	0	=	0	(1a)	B I
$\mathbf{B_2}$	=	$x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$cx_2\,\hat{\mathbf{z}}$	(2c)	B II
$\mathbf{B_3}$	=	$-x_2\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$-cx_2\,\hat{\mathbf{z}}$	(2c)	B II
$\mathbf{B_4}$	=	$x_3\,\mathbf{a}_1 + x_3\,\mathbf{a}_2 + z_3\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_3 - z_3)\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_3 - z_3)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_5}$	=	$z_3\,\mathbf{a}_1 + x_3\,\mathbf{a}_2 + x_3\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_3 - z_3)\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_3 - z_3)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_6}$	=	$x_3\,\mathbf{a}_1 + z_3\,\mathbf{a}_2 + x_3\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_3 - z_3)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_7}$	=	$-z_3\,\mathbf{a}_1 - x_3\,\mathbf{a}_2 - x_3\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_3 - z_3)\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_3 - z_3)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_8}$	=	$-x_3\,\mathbf{a}_1 - x_3\,\mathbf{a}_2 - z_3\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_3 - z_3)\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_3 - z_3)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_9}$	=	$-x_3\,\mathbf{a}_1 - z_3\,\mathbf{a}_2 - x_3\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_3 - z_3)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_3 + z_3)\,\hat{\mathbf{z}}$	(6h)	B III
$\mathbf{B_{10}}$	=	$x_4\,\mathbf{a}_1 + x_4\,\mathbf{a}_2 + z_4\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_4 - z_4)\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_4 - z_4)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{11}}$	=	$z_4\,\mathbf{a}_1 + x_4\,\mathbf{a}_2 + x_4\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_4 - z_4)\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_4 - z_4)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{12}}$	=	$x_4\,\mathbf{a}_1 + z_4\,\mathbf{a}_2 + x_4\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_4 - z_4)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{13}}$	=	$-z_4\,\mathbf{a}_1 - x_4\,\mathbf{a}_2 - x_4\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_4 - z_4)\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_4 - z_4)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{14}}$	=	$-x_4\,\mathbf{a}_1 - x_4\,\mathbf{a}_2 - z_4\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_4 - z_4)\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_4 - z_4)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{15}}$	=	$-x_4\,\mathbf{a}_1 - z_4\,\mathbf{a}_2 - x_4\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_4 - z_4)\,\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_4 + z_4)\,\hat{\mathbf{z}}$	(6h)	B IV
$\mathbf{B_{16}}$	=	$x_5\,\mathbf{a}_1 + x_5\,\mathbf{a}_2 + z_5\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_5 - z_5)\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_5 - z_5)\,\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_5 + z_5)\,\hat{\mathbf{z}}$	(6h)	B V

$\mathbf{B_{17}}$	=	$z_5\,\mathbf{a}_1 + x_5\,\mathbf{a}_2 + x_5\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_5 - z_5)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_5 - z_5)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_5 + z_5)\;\hat{\mathbf{z}}$	(6h)	B V
$\mathbf{B_{18}}$	=	$x_5\,\mathbf{a}_1 + z_5\,\mathbf{a}_2 + x_5\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_5 - z_5)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_5 + z_5)\;\hat{\mathbf{z}}$	(6h)	B V
$\mathbf{B_{19}}$	=	$-z_5\,\mathbf{a}_1 - x_5\,\mathbf{a}_2 - x_5\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_5 - z_5)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_5 - z_5)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_5 + z_5)\;\hat{\mathbf{z}}$	(6h)	B V
$\mathbf{B_{20}}$	=	$-x_5\,\mathbf{a}_1 - x_5\,\mathbf{a}_2 - z_5\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_5 - z_5)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_5 - z_5)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_5 + z_5)\;\hat{\mathbf{z}}$	(6h)	B V
$\mathbf{B_{21}}$	=	$-x_5\,\mathbf{a}_1 - z_5\,\mathbf{a}_2 - x_5\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_5 - z_5)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_5 + z_5)\;\hat{\mathbf{z}}$	(6h)	B V
$\mathbf{B_{22}}$	=	$x_6\,\mathbf{a}_1 + x_6\,\mathbf{a}_2 + z_6\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_6 - z_6)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_6 - z_6)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{23}}$	=	$z_6\,\mathbf{a}_1 + x_6\,\mathbf{a}_2 + x_6\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_6 - z_6)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_6 - z_6)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{24}}$	=	$x_6\,\mathbf{a}_1 + z_6\,\mathbf{a}_2 + x_6\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_6 - z_6)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{25}}$	=	$-z_6\,\mathbf{a}_1 - x_6\,\mathbf{a}_2 - x_6\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_6 - z_6)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_6 - z_6)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{26}}$	=	$-x_6\,\mathbf{a}_1 - x_6\,\mathbf{a}_2 - z_6\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_6 - z_6)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_6 - z_6)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{27}}$	=	$-x_6\,\mathbf{a}_1 - z_6\,\mathbf{a}_2 - x_6\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_6 - z_6)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_6 + z_6)\;\hat{\mathbf{z}}$	(6h)	B VI
$\mathbf{B_{28}}$	=	$x_7\,\mathbf{a}_1 + x_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_7 - z_7)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_7 - z_7)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{29}}$	=	$z_7\,\mathbf{a}_1 + x_7\,\mathbf{a}_2 + x_7\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_7 - z_7)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_7 - z_7)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{30}}$	=	$x_7\,\mathbf{a}_1 + z_7\,\mathbf{a}_2 + x_7\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_7 - z_7)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{31}}$	=	$-z_7\,\mathbf{a}_1 - x_7\,\mathbf{a}_2 - x_7\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_7 - z_7)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_7 - z_7)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{32}}$	=	$-x_7\,\mathbf{a}_1 - x_7\,\mathbf{a}_2 - z_7\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_7 - z_7)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_7 - z_7)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{33}}$	=	$-x_7\,\mathbf{a}_1 - z_7\,\mathbf{a}_2 - x_7\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_7 - z_7)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_7 + z_7)\;\hat{\mathbf{z}}$	(6h)	B VII
$\mathbf{B_{34}}$	=	$x_8\,\mathbf{a}_1 + x_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_8 - z_8)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_8 - z_8)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{35}}$	=	$z_8\,\mathbf{a}_1 + x_8\,\mathbf{a}_2 + x_8\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_8 - z_8)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_8 - z_8)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{36}}$	=	$x_8\,\mathbf{a}_1 + z_8\,\mathbf{a}_2 + x_8\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_8 - z_8)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{37}}$	=	$-z_8\,\mathbf{a}_1 - x_8\,\mathbf{a}_2 - x_8\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_8 - z_8)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_8 - z_8)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{38}}$	=	$-x_8\,\mathbf{a}_1 - x_8\,\mathbf{a}_2 - z_8\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_8 - z_8)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_8 - z_8)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{39}}$	=	$-x_8\,\mathbf{a}_1 - z_8\,\mathbf{a}_2 - x_8\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_8 - z_8)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_8 + z_8)\;\hat{\mathbf{z}}$	(6h)	B VIII
$\mathbf{B_{40}}$	=	$x_9\,\mathbf{a}_1 + x_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_9 - z_9)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_9 - z_9)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_9 + z_9)\;\hat{\mathbf{z}}$	(6h)	B IX
$\mathbf{B_{41}}$	=	$z_9\,\mathbf{a}_1 + x_9\,\mathbf{a}_2 + x_9\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_9 - z_9)\;\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,(x_9 - z_9)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_9 + z_9)\;\hat{\mathbf{z}}$	(6h)	B IX
$\mathbf{B_{42}}$	=	$x_9\,\mathbf{a}_1 + z_9\,\mathbf{a}_2 + x_9\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_9 - z_9)\;\hat{\mathbf{y}} + \frac{1}{3}c\,(2x_9 + z_9)\;\hat{\mathbf{z}}$	(6h)	B IX
$\mathbf{B_{43}}$	=	$-z_9\,\mathbf{a}_1 - x_9\,\mathbf{a}_2 - x_9\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_9 - z_9)\;\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,(x_9 - z_9)\;\hat{\mathbf{y}} - \frac{1}{3}c\,(2x_9 + z_9)\;\hat{\mathbf{z}}$	(6h)	B IX

$\mathbf{B_{44}}$	=	$-x_9\,\mathbf{a}_1 - x_9\,\mathbf{a}_2 - z_9\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_9 - z_9)\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_9 - z_9)\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_9 + z_9)\,\mathbf{\hat{z}}$	(6h)	B IX
$\mathbf{B_{45}}$	=	$-x_9\,\mathbf{a}_1 - z_9\,\mathbf{a}_2 - x_9\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_9 - z_9)\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_9 + z_9)\,\mathbf{\hat{z}}$	(6h)	B IX
$\mathbf{B_{46}}$	=	$x_{10}\,\mathbf{a}_1 + x_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{10} - z_{10})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{47}}$	=	$z_{10}\,\mathbf{a}_1 + x_{10}\,\mathbf{a}_2 + x_{10}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{10} - z_{10})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{48}}$	=	$x_{10}\,\mathbf{a}_1 + z_{10}\,\mathbf{a}_2 + x_{10}\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{49}}$	=	$-z_{10}\,\mathbf{a}_1 - x_{10}\,\mathbf{a}_2 - x_{10}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{10} - z_{10})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{50}}$	=	$-x_{10}\,\mathbf{a}_1 - x_{10}\,\mathbf{a}_2 - z_{10}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{10} - z_{10})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{51}}$	=	$-x_{10}\,\mathbf{a}_1 - z_{10}\,\mathbf{a}_2 - x_{10}\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_{10} - z_{10})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{10} + z_{10})\,\mathbf{\hat{z}}$	(6h)	B X
$\mathbf{B_{52}}$	=	$x_{11}\,\mathbf{a}_1 + x_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{11} - z_{11})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{53}}$	=	$z_{11}\,\mathbf{a}_1 + x_{11}\,\mathbf{a}_2 + x_{11}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{11} - z_{11})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{54}}$	=	$x_{11}\,\mathbf{a}_1 + z_{11}\,\mathbf{a}_2 + x_{11}\,\mathbf{a}_3$	=	$-\frac{1}{\sqrt{3}}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{55}}$	=	$-z_{11}\,\mathbf{a}_1 - x_{11}\,\mathbf{a}_2 - x_{11}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{11} - z_{11})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{56}}$	=	$-x_{11}\,\mathbf{a}_1 - x_{11}\,\mathbf{a}_2 - z_{11}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{11} - z_{11})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{57}}$	=	$-x_{11}\,\mathbf{a}_1 - z_{11}\,\mathbf{a}_2 - x_{11}\,\mathbf{a}_3$	=	$\frac{1}{\sqrt{3}}a\,(x_{11} - z_{11})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(2x_{11} + z_{11})\,\mathbf{\hat{z}}$	(6h)	B XI
$\mathbf{B_{58}}$	=	$x_{12}\,\mathbf{a}_1 + y_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{12} - z_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{12} - 2y_{12} + z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{59}}$	=	$z_{12}\,\mathbf{a}_1 + x_{12}\,\mathbf{a}_2 + y_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{12} - z_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{12} - y_{12} - z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{60}}$	=	$y_{12}\,\mathbf{a}_1 + z_{12}\,\mathbf{a}_2 + x_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{12} - y_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{12} + y_{12} - 2z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{61}}$	=	$-z_{12}\,\mathbf{a}_1 - y_{12}\,\mathbf{a}_2 - x_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{12} - z_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{12} - 2y_{12} + z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{62}}$	=	$-y_{12}\,\mathbf{a}_1 - x_{12}\,\mathbf{a}_2 - z_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{12} - z_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{12} - y_{12} - z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{63}}$	=	$-x_{12}\,\mathbf{a}_1 - z_{12}\,\mathbf{a}_2 - y_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{12} - y_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{12} + y_{12} - 2z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{64}}$	=	$-x_{12}\,\mathbf{a}_1 - y_{12}\,\mathbf{a}_2 - z_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{12} - z_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{12} - 2y_{12} + z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{65}}$	=	$-z_{12}\,\mathbf{a}_1 - x_{12}\,\mathbf{a}_2 - y_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{12} - z_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{12} - y_{12} - z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12} + y_{12} + z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII

$\mathbf{B_{66}}$	=	$-y_{12}\,\mathbf{a}_1 - z_{12}\,\mathbf{a}_2 - x_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{12}-y_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{12}+y_{12}-2z_{12})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{12}+y_{12}+z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{67}}$	=	$z_{12}\,\mathbf{a}_1 + y_{12}\,\mathbf{a}_2 + x_{12}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{12}-z_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{12}-2y_{12}+z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12}+y_{12}+z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{68}}$	=	$y_{12}\,\mathbf{a}_1 + x_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{12}-z_{12})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{12}-y_{12}-z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12}+y_{12}+z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{69}}$	=	$x_{12}\,\mathbf{a}_1 + z_{12}\,\mathbf{a}_2 + y_{12}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{12}-y_{12})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{12}+y_{12}-2z_{12})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{12}+y_{12}+z_{12})\,\mathbf{\hat{z}}$	(12i)	B XII
$\mathbf{B_{70}}$	=	$x_{13}\,\mathbf{a}_1 + y_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{13}-z_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{13}-2y_{13}+z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{71}}$	=	$z_{13}\,\mathbf{a}_1 + x_{13}\,\mathbf{a}_2 + y_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{13}-z_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{13}-y_{13}-z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{72}}$	=	$y_{13}\,\mathbf{a}_1 + z_{13}\,\mathbf{a}_2 + x_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{13}-y_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{13}+y_{13}-2z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{73}}$	=	$-z_{13}\,\mathbf{a}_1 - y_{13}\,\mathbf{a}_2 - x_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{13}-z_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{13}-2y_{13}+z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{74}}$	=	$-y_{13}\,\mathbf{a}_1 - x_{13}\,\mathbf{a}_2 - z_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{13}-z_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{13}-y_{13}-z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{75}}$	=	$-x_{13}\,\mathbf{a}_1 - z_{13}\,\mathbf{a}_2 - y_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{13}-y_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{13}+y_{13}-2z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{76}}$	=	$-x_{13}\,\mathbf{a}_1 - y_{13}\,\mathbf{a}_2 - z_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{13}-z_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{13}-2y_{13}+z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{77}}$	=	$-z_{13}\,\mathbf{a}_1 - x_{13}\,\mathbf{a}_2 - y_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{13}-z_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{13}-y_{13}-z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{78}}$	=	$-y_{13}\,\mathbf{a}_1 - z_{13}\,\mathbf{a}_2 - x_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{13}-y_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{13}+y_{13}-2z_{13})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{79}}$	=	$z_{13}\,\mathbf{a}_1 + y_{13}\,\mathbf{a}_2 + x_{13}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{13}-z_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{13}-2y_{13}+z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{80}}$	=	$y_{13}\,\mathbf{a}_1 + x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{13}-z_{13})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{13}-y_{13}-z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII
$\mathbf{B_{81}}$	=	$x_{13}\,\mathbf{a}_1 + z_{13}\,\mathbf{a}_2 + y_{13}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{13}-y_{13})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{13}+y_{13}-2z_{13})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{13}+y_{13}+z_{13})\,\mathbf{\hat{z}}$	(12i)	B XIII

$\mathbf{B_{82}}$	=	$x_{14}\,\mathbf{a}_1 + y_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{14} - z_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{14} - 2y_{14} + z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{83}}$	=	$z_{14}\,\mathbf{a}_1 + x_{14}\,\mathbf{a}_2 + y_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{14} - z_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{14} - y_{14} - z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{84}}$	=	$y_{14}\,\mathbf{a}_1 + z_{14}\,\mathbf{a}_2 + x_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{14} - y_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{14} + y_{14} - 2z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{85}}$	=	$-z_{14}\,\mathbf{a}_1 - y_{14}\,\mathbf{a}_2 - x_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{14} - z_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{14} - 2y_{14} + z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{86}}$	=	$-y_{14}\,\mathbf{a}_1 - x_{14}\,\mathbf{a}_2 - z_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{14} - z_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{14} - y_{14} - z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{87}}$	=	$-x_{14}\,\mathbf{a}_1 - z_{14}\,\mathbf{a}_2 - y_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{14} - y_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{14} + y_{14} - 2z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{88}}$	=	$-x_{14}\,\mathbf{a}_1 - y_{14}\,\mathbf{a}_2 - z_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{14} - z_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{14} - 2y_{14} + z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{89}}$	=	$-z_{14}\,\mathbf{a}_1 - x_{14}\,\mathbf{a}_2 - y_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{14} - z_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{14} - y_{14} - z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{90}}$	=	$-y_{14}\,\mathbf{a}_1 - z_{14}\,\mathbf{a}_2 - x_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{14} - y_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{14} + y_{14} - 2z_{14})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{91}}$	=	$z_{14}\,\mathbf{a}_1 + y_{14}\,\mathbf{a}_2 + x_{14}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{14} - z_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{14} - 2y_{14} + z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{92}}$	=	$y_{14}\,\mathbf{a}_1 + x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{14} - z_{14})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{14} - y_{14} - z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{93}}$	=	$x_{14}\,\mathbf{a}_1 + z_{14}\,\mathbf{a}_2 + y_{14}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{14} - y_{14})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{14} + y_{14} - 2z_{14})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{14} + y_{14} + z_{14})\,\mathbf{\hat{z}}$	(12i)	B XIV
$\mathbf{B_{94}}$	=	$x_{15}\,\mathbf{a}_1 + y_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{15} - z_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{15} - 2y_{15} + z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15} + y_{15} + z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{95}}$	=	$z_{15}\,\mathbf{a}_1 + x_{15}\,\mathbf{a}_2 + y_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{15} - z_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{15} - y_{15} - z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15} + y_{15} + z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{96}}$	=	$y_{15}\,\mathbf{a}_1 + z_{15}\,\mathbf{a}_2 + x_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{15} - y_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{15} + y_{15} - 2z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15} + y_{15} + z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{97}}$	=	$-z_{15}\,\mathbf{a}_1 - y_{15}\,\mathbf{a}_2 - x_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{15} - z_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{15} - 2y_{15} + z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15} + y_{15} + z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV

$\mathbf{B_{98}}$	=	$-y_{15}\,\mathbf{a}_1 - x_{15}\,\mathbf{a}_2 - z_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(y_{15}-z_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{15}-y_{15}-z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{99}}$	=	$-x_{15}\,\mathbf{a}_1 - z_{15}\,\mathbf{a}_2 - y_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{15}-y_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{15}+y_{15}-2z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{100}}$	=	$-x_{15}\,\mathbf{a}_1 - y_{15}\,\mathbf{a}_2 - z_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{15}-z_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{15}-2y_{15}+z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{101}}$	=	$-z_{15}\,\mathbf{a}_1 - x_{15}\,\mathbf{a}_2 - y_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{15}-z_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(2x_{15}-y_{15}-z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{102}}$	=	$-y_{15}\,\mathbf{a}_1 - z_{15}\,\mathbf{a}_2 - x_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{15}-y_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(x_{15}+y_{15}-2z_{15})\,\mathbf{\hat{y}} - \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{103}}$	=	$z_{15}\,\mathbf{a}_1 + y_{15}\,\mathbf{a}_2 + x_{15}\,\mathbf{a}_3$	=	$-\frac{1}{2}a\,(x_{15}-z_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{15}-2y_{15}+z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{104}}$	=	$y_{15}\,\mathbf{a}_1 + x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(y_{15}-z_{15})\,\mathbf{\hat{x}} + \frac{\sqrt{3}}{6}a\,(2x_{15}-y_{15}-z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV
$\mathbf{B_{105}}$	=	$x_{15}\,\mathbf{a}_1 + z_{15}\,\mathbf{a}_2 + y_{15}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,(x_{15}-y_{15})\,\mathbf{\hat{x}} - \frac{\sqrt{3}}{6}a\,(x_{15}+y_{15}-2z_{15})\,\mathbf{\hat{y}} + \frac{1}{3}c\,(x_{15}+y_{15}+z_{15})\,\mathbf{\hat{z}}$	(12i)	B XV

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