$MgB_{12}H_{12}[H_2O]_{12}$ Structure: A12B36CD12_cF488_210_h_3h_a_fg-001

This structure originally had the label `A12B36CD12_cF488_210_h_3h_a_fg`. Calls to that address will be redirected here.

Cite this page as: D. Hicks, M. J. Mehl, E. Gossett, C. Toher, O. Levy, R. M. Hanson, G. Hart, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 2*, Comput. Mater. Sci. **161**, S1 (2019). doi: 10.1016/j.commatsci.2018.10.043

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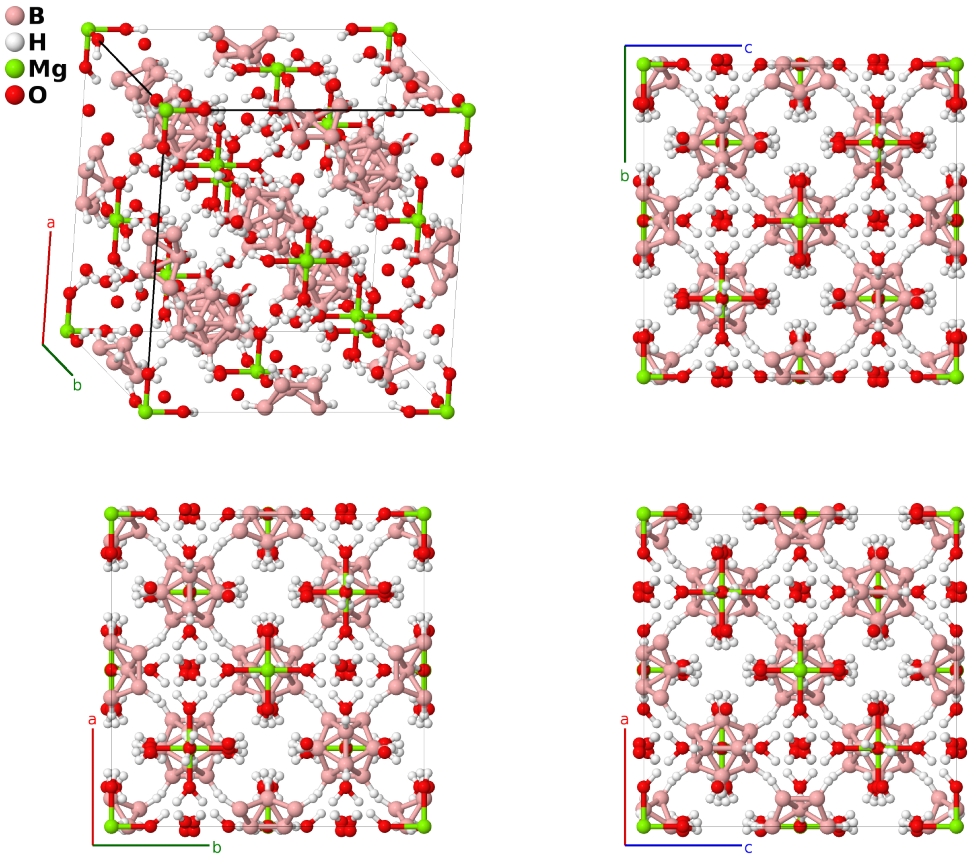
https://aflow.org/p/X29X

https://aflow.org/p/A12B36CD12_cF488_210_h_3h_a_fg-001



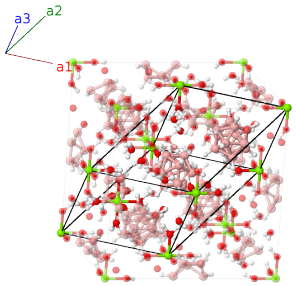
Prototype	$B_{12}H_{36}MgO_{12}$
AFLOW prototype label	A12B36CD12_cF488_210_h_3h_a_fg-001
ICSD	413594
Pearson symbol	cF488
Space group number	210
Space group symbol	$F4_132$
AFLOW prototype command	`aflow --proto=A12B36CD12_cF488_210_h_3h_a_fg-001 --params=`$a, x_2, y_3, x_4, y_4, z_4, x_5, y_5, z_5, x_6, y_6, z_6, x_7, y_7, z_7$

Other compounds with this structure

$NiB_{12}H_{12}[H_2O]_{12}$

Face-centered Cubic primitive vectors

$$\begin{aligned}\mathbf{a_1} &= \tfrac{1}{2}a\,\hat{\mathbf{y}} + \tfrac{1}{2}a\,\hat{\mathbf{z}}\\ \mathbf{a_2} &= \tfrac{1}{2}a\,\hat{\mathbf{x}} + \tfrac{1}{2}a\,\hat{\mathbf{z}}\\ \mathbf{a_3} &= \tfrac{1}{2}a\,\hat{\mathbf{x}} + \tfrac{1}{2}a\,\hat{\mathbf{y}}\end{aligned}$$



Basis vectors

		Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$	=	0	=	0	(8a)	Mg I
$\mathbf{B_2}$	=	$\frac{1}{4}\,\mathbf{a}_1 + \frac{1}{4}\,\mathbf{a}_2 + \frac{1}{4}\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}} + \frac{1}{4}a\,\hat{\mathbf{y}} + \frac{1}{4}a\,\hat{\mathbf{z}}$	(8a)	Mg I
$\mathbf{B_3}$	=	$-x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{x}}$	(48f)	O I
$\mathbf{B_4}$	=	$x_2\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{x}}$	(48f)	O I
$\mathbf{B_5}$	=	$x_2\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{y}}$	(48f)	O I
$\mathbf{B_6}$	=	$-x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{y}}$	(48f)	O I
$\mathbf{B_7}$	=	$x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_8}$	=	$-x_2\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_9}$	=	$\left(x_2+\frac{1}{4}\right)\mathbf{a}_1 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_2 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}} + a\left(x_2+\frac{1}{4}\right)\hat{\mathbf{y}} + \frac{1}{4}a\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{10}}$	=	$-\left(x_2-\frac{1}{4}\right)\mathbf{a}_1 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_2 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}} - a\left(x_2-\frac{1}{4}\right)\hat{\mathbf{y}} + \frac{1}{4}a\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{11}}$	=	$-\left(x_2-\frac{1}{4}\right)\mathbf{a}_1 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_2 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_3$	=	$a\left(x_2+\frac{1}{4}\right)\hat{\mathbf{x}} + \frac{1}{4}a\,\hat{\mathbf{y}} + \frac{1}{4}a\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{12}}$	=	$\left(x_2+\frac{1}{4}\right)\mathbf{a}_1 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_2 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_3$	=	$-a\left(x_2-\frac{1}{4}\right)\hat{\mathbf{x}} + \frac{1}{4}a\,\hat{\mathbf{y}} + \frac{1}{4}a\,\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{13}}$	=	$-\left(x_2-\frac{1}{4}\right)\mathbf{a}_1 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_2 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}} + \frac{1}{4}a\,\hat{\mathbf{y}} - a\left(x_2-\frac{1}{4}\right)\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{14}}$	=	$\left(x_2+\frac{1}{4}\right)\mathbf{a}_1 + \left(x_2+\frac{1}{4}\right)\mathbf{a}_2 - \left(x_2-\frac{1}{4}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}} + \frac{1}{4}a\,\hat{\mathbf{y}} + a\left(x_2+\frac{1}{4}\right)\hat{\mathbf{z}}$	(48f)	O I
$\mathbf{B_{15}}$	=	$\frac{1}{8}\,\mathbf{a}_1 - \left(2y_3-\frac{3}{8}\right)\mathbf{a}_2 + \left(2y_3+\frac{7}{8}\right)\mathbf{a}_3$	=	$\frac{5}{8}a\,\hat{\mathbf{x}} + a\left(y_3+\frac{1}{2}\right)\hat{\mathbf{y}} - a\left(y_3-\frac{1}{4}\right)\hat{\mathbf{z}}$	(48g)	O II
$\mathbf{B_{16}}$	=	$-\left(2y_3-\frac{3}{8}\right)\mathbf{a}_1 + \frac{1}{8}\,\mathbf{a}_2 + \frac{5}{8}\,\mathbf{a}_3$	=	$\frac{3}{8}a\,\hat{\mathbf{x}} - a\left(y_3-\frac{1}{2}\right)\hat{\mathbf{y}} - a\left(y_3-\frac{1}{4}\right)\hat{\mathbf{z}}$	(48g)	O II
$\mathbf{B_{17}}$	=	$\left(2y_3+\frac{7}{8}\right)\mathbf{a}_1 + \frac{5}{8}\,\mathbf{a}_2 + \frac{1}{8}\,\mathbf{a}_3$	=	$\frac{3}{8}a\,\hat{\mathbf{x}} + a\left(y_3+\frac{1}{2}\right)\hat{\mathbf{y}} + a\left(y_3+\frac{3}{4}\right)\hat{\mathbf{z}}$	(48g)	O II
$\mathbf{B_{18}}$	=	$\frac{5}{8}\,\mathbf{a}_1 + \left(2y_3+\frac{7}{8}\right)\mathbf{a}_2 - \left(2y_3-\frac{3}{8}\right)\mathbf{a}_3$	=	$\frac{5}{8}a\,\hat{\mathbf{x}} - a\left(y_3-\frac{1}{2}\right)\hat{\mathbf{y}} + a\left(y_3+\frac{3}{4}\right)\hat{\mathbf{z}}$	(48g)	O II
$\mathbf{B_{19}}$	=	$\left(2y_3+\frac{7}{8}\right)\mathbf{a}_1 + \frac{1}{8}\,\mathbf{a}_2 - \left(2y_3-\frac{3}{8}\right)\mathbf{a}_3$	=	$-a\left(y_3-\frac{1}{4}\right)\hat{\mathbf{x}} + \frac{5}{8}a\,\hat{\mathbf{y}} + a\left(y_3+\frac{1}{2}\right)\hat{\mathbf{z}}$	(48g)	O II

$$\mathbf{B_{20}} = \tfrac{5}{8}\,\mathbf{a}_1 - \left(2y_3 - \tfrac{3}{8}\right)\,\mathbf{a}_2 + \tfrac{1}{8}\,\mathbf{a}_3 = -a\left(y_3 - \tfrac{1}{4}\right)\,\hat{\mathbf{x}} + \tfrac{3}{8}a\,\hat{\mathbf{y}} - a\left(y_3 - \tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{21}} = \tfrac{1}{8}\,\mathbf{a}_1 + \left(2y_3 + \tfrac{7}{8}\right)\,\mathbf{a}_2 + \tfrac{5}{8}\,\mathbf{a}_3 = a\left(y_3 + \tfrac{3}{4}\right)\,\hat{\mathbf{x}} + \tfrac{3}{8}a\,\hat{\mathbf{y}} + a\left(y_3 + \tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{22}} = -\left(2y_3 - \tfrac{3}{8}\right)\,\mathbf{a}_1 + \tfrac{5}{8}\,\mathbf{a}_2 + \left(2y_3 + \tfrac{7}{8}\right)\,\mathbf{a}_3 = a\left(y_3 + \tfrac{3}{4}\right)\,\hat{\mathbf{x}} + \tfrac{5}{8}a\,\hat{\mathbf{y}} - a\left(y_3 - \tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{23}} = -\left(2y_3 - \tfrac{3}{8}\right)\,\mathbf{a}_1 + \left(2y_3 + \tfrac{7}{8}\right)\,\mathbf{a}_2 + \tfrac{1}{8}\,\mathbf{a}_3 = a\left(y_3 + \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(y_3 - \tfrac{1}{4}\right)\,\hat{\mathbf{y}} + \tfrac{5}{8}a\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{24}} = \tfrac{1}{8}\,\mathbf{a}_1 + \tfrac{5}{8}\,\mathbf{a}_2 - \left(2y_3 - \tfrac{3}{8}\right)\,\mathbf{a}_3 = -a\left(y_3 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(y_3 - \tfrac{1}{4}\right)\,\hat{\mathbf{y}} + \tfrac{3}{8}a\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{25}} = \tfrac{5}{8}\,\mathbf{a}_1 + \tfrac{1}{8}\,\mathbf{a}_2 + \left(2y_3 + \tfrac{7}{8}\right)\,\mathbf{a}_3 = a\left(y_3 + \tfrac{1}{2}\right)\,\hat{\mathbf{x}} + a\left(y_3 + \tfrac{3}{4}\right)\,\hat{\mathbf{y}} + \tfrac{3}{8}a\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{26}} = \left(2y_3 + \tfrac{7}{8}\right)\,\mathbf{a}_1 - \left(2y_3 - \tfrac{3}{8}\right)\,\mathbf{a}_2 + \tfrac{5}{8}\,\mathbf{a}_3 = -a\left(y_3 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} + a\left(y_3 + \tfrac{3}{4}\right)\,\hat{\mathbf{y}} + \tfrac{5}{8}a\,\hat{\mathbf{z}} \quad (48g) \quad \text{O II}$$

$$\mathbf{B_{27}} = (-x_4 + y_4 + z_4)\,\mathbf{a}_1 + (x_4 - y_4 + z_4)\,\mathbf{a}_2 + (x_4 + y_4 - z_4)\,\mathbf{a}_3 = ax_4\,\hat{\mathbf{x}} + ay_4\,\hat{\mathbf{y}} + az_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{28}} = (x_4 - y_4 + z_4)\,\mathbf{a}_1 + (-x_4 + y_4 + z_4)\,\mathbf{a}_2 - (x_4 + y_4 + z_4)\,\mathbf{a}_3 = -ax_4\,\hat{\mathbf{x}} - ay_4\,\hat{\mathbf{y}} + az_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{29}} = (x_4 + y_4 - z_4)\,\mathbf{a}_1 - (x_4 + y_4 + z_4)\,\mathbf{a}_2 + (-x_4 + y_4 + z_4)\,\mathbf{a}_3 = -ax_4\,\hat{\mathbf{x}} + ay_4\,\hat{\mathbf{y}} - az_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{30}} = -(x_4 + y_4 + z_4)\,\mathbf{a}_1 + (x_4 + y_4 - z_4)\,\mathbf{a}_2 + (x_4 - y_4 + z_4)\,\mathbf{a}_3 = ax_4\,\hat{\mathbf{x}} - ay_4\,\hat{\mathbf{y}} - az_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{31}} = (x_4 + y_4 - z_4)\,\mathbf{a}_1 + (-x_4 + y_4 + z_4)\,\mathbf{a}_2 + (x_4 - y_4 + z_4)\,\mathbf{a}_3 = az_4\,\hat{\mathbf{x}} + ax_4\,\hat{\mathbf{y}} + ay_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{32}} = -(x_4 + y_4 + z_4)\,\mathbf{a}_1 + (x_4 - y_4 + z_4)\,\mathbf{a}_2 + (-x_4 + y_4 + z_4)\,\mathbf{a}_3 = az_4\,\hat{\mathbf{x}} - ax_4\,\hat{\mathbf{y}} - ay_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{33}} = (-x_4 + y_4 + z_4)\,\mathbf{a}_1 + (x_4 + y_4 - z_4)\,\mathbf{a}_2 - (x_4 + y_4 + z_4)\,\mathbf{a}_3 = -az_4\,\hat{\mathbf{x}} - ax_4\,\hat{\mathbf{y}} + ay_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{34}} = (x_4 - y_4 + z_4)\,\mathbf{a}_1 - (x_4 + y_4 + z_4)\,\mathbf{a}_2 + (x_4 + y_4 - z_4)\,\mathbf{a}_3 = -az_4\,\hat{\mathbf{x}} + ax_4\,\hat{\mathbf{y}} - ay_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{35}} = (x_4 - y_4 + z_4)\,\mathbf{a}_1 + (x_4 + y_4 - z_4)\,\mathbf{a}_2 + (-x_4 + y_4 + z_4)\,\mathbf{a}_3 = ay_4\,\hat{\mathbf{x}} + az_4\,\hat{\mathbf{y}} + ax_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{36}} = (-x_4 + y_4 + z_4)\,\mathbf{a}_1 - (x_4 + y_4 + z_4)\,\mathbf{a}_2 + (x_4 - y_4 + z_4)\,\mathbf{a}_3 = -ay_4\,\hat{\mathbf{x}} + az_4\,\hat{\mathbf{y}} - ax_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{37}} = -(x_4 + y_4 + z_4)\,\mathbf{a}_1 + (-x_4 + y_4 + z_4)\,\mathbf{a}_2 + (x_4 + y_4 - z_4)\,\mathbf{a}_3 = ay_4\,\hat{\mathbf{x}} - az_4\,\hat{\mathbf{y}} - ax_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{38}} = (x_4 + y_4 - z_4)\,\mathbf{a}_1 + (x_4 - y_4 + z_4)\,\mathbf{a}_2 - (x_4 + y_4 + z_4)\,\mathbf{a}_3 = -ay_4\,\hat{\mathbf{x}} - az_4\,\hat{\mathbf{y}} + ax_4\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{39}} = \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\,\mathbf{a}_1 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\,\mathbf{a}_2 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\,\mathbf{a}_3 = a\left(y_4 + \tfrac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_4 + \tfrac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(z_4 - \tfrac{1}{4}\right)\,\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{40}} = -\left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} - a\left(z_4 - \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{41}} = -\left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = a\left(y_4 + \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{42}} = \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_1 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_2 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} + a\left(x_4 + \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{43}} = -\left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_3 = a\left(x_4 + \tfrac{1}{4}\right)\hat{\mathbf{x}} + a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{y}} - a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{44}} = \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_1 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} + a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(y_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{45}} = \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_1 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(z_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} - a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{46}} = -\left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_3 = a\left(x_4 + \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(z_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(y_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{47}} = -\left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_2 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_3 = a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{x}} + a\left(y_4 + \tfrac{1}{4}\right)\hat{\mathbf{y}} - a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{48}} = \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = a\left(z_4 + \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(x_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{49}} = \left(x_4 + y_4 + z_4 + \tfrac{1}{4}\right)\mathbf{a}_1 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_2 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(z_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} + a\left(y_4 + \tfrac{1}{4}\right)\hat{\mathbf{y}} + a\left(x_4 + \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{50}} = -\left(x_4 + y_4 - z_4 - \tfrac{1}{4}\right)\mathbf{a}_1 - \left(x_4 - y_4 + z_4 - \tfrac{1}{4}\right)\mathbf{a}_2 + \left(x_4 - y_4 - z_4 + \tfrac{1}{4}\right)\mathbf{a}_3 = -a\left(z_4 - \tfrac{1}{4}\right)\hat{\mathbf{x}} - a\left(y_4 - \tfrac{1}{4}\right)\hat{\mathbf{y}} - a\left(x_4 - \tfrac{1}{4}\right)\hat{\mathbf{z}} \quad (96h) \quad \text{B I}$$

$$\mathbf{B_{51}} = (-x_5 + y_5 + z_5)\,\mathbf{a}_1 + (x_5 - y_5 + z_5)\,\mathbf{a}_2 + (x_5 + y_5 - z_5)\,\mathbf{a}_3 = ax_5\,\hat{\mathbf{x}} + ay_5\,\hat{\mathbf{y}} + az_5\,\hat{\mathbf{z}} \quad (96h) \quad \text{H I}$$

$$\mathbf{B_{52}} = (x_5 - y_5 + z_5)\,\mathbf{a}_1 + (-x_5 + y_5 + z_5)\,\mathbf{a}_2 - (x_5 + y_5 + z_5)\,\mathbf{a}_3 = -ax_5\,\hat{\mathbf{x}} - ay_5\,\hat{\mathbf{y}} + az_5\,\hat{\mathbf{z}} \quad (96h) \quad \text{H I}$$

$$\mathbf{B_{53}} = (x_5 + y_5 - z_5)\,\mathbf{a}_1 - (x_5 + y_5 + z_5)\,\mathbf{a}_2 + (-x_5 + y_5 + z_5)\,\mathbf{a}_3 = -ax_5\,\hat{\mathbf{x}} + ay_5\,\hat{\mathbf{y}} - az_5\,\hat{\mathbf{z}} \quad (96h) \quad \text{H I}$$

$$\mathbf{B_{54}} = -(x_5 + y_5 + z_5)\,\mathbf{a}_1 + (x_5 + y_5 - z_5)\,\mathbf{a}_2 + (x_5 - y_5 + z_5)\,\mathbf{a}_3 = ax_5\,\hat{\mathbf{x}} - ay_5\,\hat{\mathbf{y}} - az_5\,\hat{\mathbf{z}} \quad (96h) \quad \text{H I}$$

$$\mathbf{B_{55}} = (x_5 + y_5 - z_5)\,\mathbf{a}_1 + (-x_5 + y_5 + z_5)\,\mathbf{a}_2 + (x_5 - y_5 + z_5)\,\mathbf{a}_3 = az_5\,\hat{\mathbf{x}} + ax_5\,\hat{\mathbf{y}} + ay_5\,\hat{\mathbf{z}} \quad (96h) \quad \text{H I}$$

$\mathbf{B_{56}}$	$=$	$-\left(x_5+y_5+z_5\right)\,\mathbf{a}_1+\left(x_5-y_5+z_5\right)\,\mathbf{a}_2+\left(-x_5+y_5+z_5\right)\,\mathbf{a}_3$	$=$	$az_5\,\hat{\mathbf{x}}-ax_5\,\hat{\mathbf{y}}-ay_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{57}}$	$=$	$\left(-x_5+y_5+z_5\right)\,\mathbf{a}_1+\left(x_5+y_5-z_5\right)\,\mathbf{a}_2-\left(x_5+y_5+z_5\right)\,\mathbf{a}_3$	$=$	$-az_5\,\hat{\mathbf{x}}-ax_5\,\hat{\mathbf{y}}+ay_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{58}}$	$=$	$\left(x_5-y_5+z_5\right)\,\mathbf{a}_1-\left(x_5+y_5+z_5\right)\,\mathbf{a}_2+\left(x_5+y_5-z_5\right)\,\mathbf{a}_3$	$=$	$-az_5\,\hat{\mathbf{x}}+ax_5\,\hat{\mathbf{y}}-ay_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{59}}$	$=$	$\left(x_5-y_5+z_5\right)\,\mathbf{a}_1+\left(x_5+y_5-z_5\right)\,\mathbf{a}_2+\left(-x_5+y_5+z_5\right)\,\mathbf{a}_3$	$=$	$ay_5\,\hat{\mathbf{x}}+az_5\,\hat{\mathbf{y}}+ax_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{60}}$	$=$	$\left(-x_5+y_5+z_5\right)\,\mathbf{a}_1-\left(x_5+y_5+z_5\right)\,\mathbf{a}_2+\left(x_5-y_5+z_5\right)\,\mathbf{a}_3$	$=$	$-ay_5\,\hat{\mathbf{x}}+az_5\,\hat{\mathbf{y}}-ax_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{61}}$	$=$	$-\left(x_5+y_5+z_5\right)\,\mathbf{a}_1+\left(-x_5+y_5+z_5\right)\,\mathbf{a}_2+\left(x_5+y_5-z_5\right)\,\mathbf{a}_3$	$=$	$ay_5\,\hat{\mathbf{x}}-az_5\,\hat{\mathbf{y}}-ax_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{62}}$	$=$	$\left(x_5+y_5-z_5\right)\,\mathbf{a}_1+\left(x_5-y_5+z_5\right)\,\mathbf{a}_2-\left(x_5+y_5+z_5\right)\,\mathbf{a}_3$	$=$	$-ay_5\,\hat{\mathbf{x}}-az_5\,\hat{\mathbf{y}}+ax_5\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{63}}$	$=$	$\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_5+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_5+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_5-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{64}}$	$=$	$-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_5-\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_5-\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_5-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{65}}$	$=$	$-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_5+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_5-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{66}}$	$=$	$\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_5-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_5+\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{67}}$	$=$	$-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_5+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_5-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{68}}$	$=$	$\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_5-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{69}}$	$=$	$\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_5-\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_5-\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_5-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{70}}$	$=$	$-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5-y_5-z_5+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_5+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_5-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{71}}$	$=$	$-\left(x_5-y_5+z_5-\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_5+y_5-z_5-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5+y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(y_5+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(x_5-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I

$\mathbf{B_{72}}$	=	$\left(x_5 - y_5 - z_5 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_5 + y_5 + z_5 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_5 + y_5 - z_5 - \frac{1}{4}\right)\,\mathbf{a}_3$	=	$a\left(z_5 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_5 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_5 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{73}}$	=	$\left(x_5 + y_5 + z_5 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_5 - y_5 - z_5 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_5 - y_5 + z_5 - \frac{1}{4}\right)\,\mathbf{a}_3$	=	$-a\left(z_5 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_5 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_5 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{74}}$	=	$-\left(x_5 + y_5 - z_5 - \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_5 - y_5 + z_5 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_5 - y_5 - z_5 + \frac{1}{4}\right)\,\mathbf{a}_3$	=	$-a\left(z_5 - \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_5 - \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_5 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H I
$\mathbf{B_{75}}$	=	$(-x_6 + y_6 + z_6)\,\mathbf{a}_1 + (x_6 - y_6 + z_6)\,\mathbf{a}_2 + (x_6 + y_6 - z_6)\,\mathbf{a}_3$	=	$ax_6\,\hat{\mathbf{x}} + ay_6\,\hat{\mathbf{y}} + az_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{76}}$	=	$(x_6 - y_6 + z_6)\,\mathbf{a}_1 + (-x_6 + y_6 + z_6)\,\mathbf{a}_2 - (x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$-ax_6\,\hat{\mathbf{x}} - ay_6\,\hat{\mathbf{y}} + az_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{77}}$	=	$(x_6 + y_6 - z_6)\,\mathbf{a}_1 - (x_6 + y_6 + z_6)\,\mathbf{a}_2 + (-x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$-ax_6\,\hat{\mathbf{x}} + ay_6\,\hat{\mathbf{y}} - az_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{78}}$	=	$-(x_6 + y_6 + z_6)\,\mathbf{a}_1 + (x_6 + y_6 - z_6)\,\mathbf{a}_2 + (x_6 - y_6 + z_6)\,\mathbf{a}_3$	=	$ax_6\,\hat{\mathbf{x}} - ay_6\,\hat{\mathbf{y}} - az_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{79}}$	=	$(x_6 + y_6 - z_6)\,\mathbf{a}_1 + (-x_6 + y_6 + z_6)\,\mathbf{a}_2 + (x_6 - y_6 + z_6)\,\mathbf{a}_3$	=	$az_6\,\hat{\mathbf{x}} + ax_6\,\hat{\mathbf{y}} + ay_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{80}}$	=	$-(x_6 + y_6 + z_6)\,\mathbf{a}_1 + (x_6 - y_6 + z_6)\,\mathbf{a}_2 + (-x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$az_6\,\hat{\mathbf{x}} - ax_6\,\hat{\mathbf{y}} - ay_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{81}}$	=	$(-x_6 + y_6 + z_6)\,\mathbf{a}_1 + (x_6 + y_6 - z_6)\,\mathbf{a}_2 - (x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$-az_6\,\hat{\mathbf{x}} - ax_6\,\hat{\mathbf{y}} + ay_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{82}}$	=	$(x_6 - y_6 + z_6)\,\mathbf{a}_1 - (x_6 + y_6 + z_6)\,\mathbf{a}_2 + (x_6 + y_6 - z_6)\,\mathbf{a}_3$	=	$-az_6\,\hat{\mathbf{x}} + ax_6\,\hat{\mathbf{y}} - ay_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{83}}$	=	$(x_6 - y_6 + z_6)\,\mathbf{a}_1 + (x_6 + y_6 - z_6)\,\mathbf{a}_2 + (-x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$ay_6\,\hat{\mathbf{x}} + az_6\,\hat{\mathbf{y}} + ax_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{84}}$	=	$(-x_6 + y_6 + z_6)\,\mathbf{a}_1 - (x_6 + y_6 + z_6)\,\mathbf{a}_2 + (x_6 - y_6 + z_6)\,\mathbf{a}_3$	=	$-ay_6\,\hat{\mathbf{x}} + az_6\,\hat{\mathbf{y}} - ax_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{85}}$	=	$-(x_6 + y_6 + z_6)\,\mathbf{a}_1 + (-x_6 + y_6 + z_6)\,\mathbf{a}_2 + (x_6 + y_6 - z_6)\,\mathbf{a}_3$	=	$ay_6\,\hat{\mathbf{x}} - az_6\,\hat{\mathbf{y}} - ax_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{86}}$	=	$(x_6 + y_6 - z_6)\,\mathbf{a}_1 + (x_6 - y_6 + z_6)\,\mathbf{a}_2 - (x_6 + y_6 + z_6)\,\mathbf{a}_3$	=	$-ay_6\,\hat{\mathbf{x}} - az_6\,\hat{\mathbf{y}} + ax_6\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{87}}$	=	$\left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	=	$a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II

$\mathbf{B_{88}}$	$= -\left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{89}}$	$= -\left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{90}}$	$= \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{91}}$	$= -\left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{92}}$	$= \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{93}}$	$= \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{94}}$	$= -\left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{95}}$	$= -\left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{96}}$	$= \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_6 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{97}}$	$= \left(x_6 + y_6 + z_6 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_6 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_6 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{98}}$	$= -\left(x_6 + y_6 - z_6 - \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_6 - y_6 + z_6 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_6 - y_6 - z_6 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_6 - \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_6 - \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_6 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H II
$\mathbf{B_{99}}$	$= (-x_7 + y_7 + z_7)\,\mathbf{a}_1 + (x_7 - y_7 + z_7)\,\mathbf{a}_2 + (x_7 + y_7 - z_7)\,\mathbf{a}_3$	$=$	$ax_7\,\hat{\mathbf{x}} + ay_7\,\hat{\mathbf{y}} + az_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{100}}$	$= (x_7 - y_7 + z_7)\,\mathbf{a}_1 + (-x_7 + y_7 + z_7)\,\mathbf{a}_2 - (x_7 + y_7 + z_7)\,\mathbf{a}_3$	$=$	$-ax_7\,\hat{\mathbf{x}} - ay_7\,\hat{\mathbf{y}} + az_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{101}}$	$= (x_7 + y_7 - z_7)\,\mathbf{a}_1 - (x_7 + y_7 + z_7)\,\mathbf{a}_2 + (-x_7 + y_7 + z_7)\,\mathbf{a}_3$	$=$	$-ax_7\,\hat{\mathbf{x}} + ay_7\,\hat{\mathbf{y}} - az_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{102}}$	$= -(x_7 + y_7 + z_7)\,\mathbf{a}_1 + (x_7 + y_7 - z_7)\,\mathbf{a}_2 + (x_7 - y_7 + z_7)\,\mathbf{a}_3$	$=$	$ax_7\,\hat{\mathbf{x}} - ay_7\,\hat{\mathbf{y}} - az_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{103}}$	$= (x_7 + y_7 - z_7)\,\mathbf{a}_1 + (-x_7 + y_7 + z_7)\,\mathbf{a}_2 + (x_7 - y_7 + z_7)\,\mathbf{a}_3$	$=$	$az_7\,\hat{\mathbf{x}} + ax_7\,\hat{\mathbf{y}} + ay_7\,\hat{\mathbf{z}}$	(96h)	H III

$\mathbf{B_{104}} =$	$-\left(x_7+y_7+z_7\right)\,\mathbf{a}_1+\left(x_7-y_7+z_7\right)\,\mathbf{a}_2+\left(-x_7+y_7+z_7\right)\,\mathbf{a}_3$	$=$	$az_7\,\hat{\mathbf{x}}-ax_7\,\hat{\mathbf{y}}-ay_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{105}} =$	$\left(-x_7+y_7+z_7\right)\,\mathbf{a}_1+\left(x_7+y_7-z_7\right)\,\mathbf{a}_2-\left(x_7+y_7+z_7\right)\,\mathbf{a}_3$	$=$	$-az_7\,\hat{\mathbf{x}}-ax_7\,\hat{\mathbf{y}}+ay_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{106}} =$	$\left(x_7-y_7+z_7\right)\,\mathbf{a}_1-\left(x_7+y_7+z_7\right)\,\mathbf{a}_2+\left(x_7+y_7-z_7\right)\,\mathbf{a}_3$	$=$	$-az_7\,\hat{\mathbf{x}}+ax_7\,\hat{\mathbf{y}}-ay_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{107}} =$	$\left(x_7-y_7+z_7\right)\,\mathbf{a}_1+\left(x_7+y_7-z_7\right)\,\mathbf{a}_2+\left(-x_7+y_7+z_7\right)\,\mathbf{a}_3$	$=$	$ay_7\,\hat{\mathbf{x}}+az_7\,\hat{\mathbf{y}}+ax_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{108}} =$	$\left(-x_7+y_7+z_7\right)\,\mathbf{a}_1-\left(x_7+y_7+z_7\right)\,\mathbf{a}_2+\left(x_7-y_7+z_7\right)\,\mathbf{a}_3$	$=$	$-ay_7\,\hat{\mathbf{x}}+az_7\,\hat{\mathbf{y}}-ax_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{109}} =$	$-\left(x_7+y_7+z_7\right)\,\mathbf{a}_1+\left(-x_7+y_7+z_7\right)\,\mathbf{a}_2+\left(x_7+y_7-z_7\right)\,\mathbf{a}_3$	$=$	$ay_7\,\hat{\mathbf{x}}-az_7\,\hat{\mathbf{y}}-ax_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{110}} =$	$\left(x_7+y_7-z_7\right)\,\mathbf{a}_1+\left(x_7-y_7+z_7\right)\,\mathbf{a}_2-\left(x_7+y_7+z_7\right)\,\mathbf{a}_3$	$=$	$-ay_7\,\hat{\mathbf{x}}-az_7\,\hat{\mathbf{y}}+ax_7\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{111}} =$	$\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{112}} =$	$-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{113}} =$	$-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{114}} =$	$\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{115}} =$	$-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{116}} =$	$\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{117}} =$	$\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{118}} =$	$-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_7-y_7-z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{119}} =$	$-\left(x_7-y_7+z_7-\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_7+y_7-z_7-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_7+y_7+z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III

$\mathbf{B_{120}} =$	$\left(x_7 - y_7 - z_7 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_7 + y_7 + z_7 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_7 + y_7 - z_7 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_7 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_7 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_7 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{121}} =$	$\left(x_7 + y_7 + z_7 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_7 - y_7 - z_7 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_7 - y_7 + z_7 - \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_7 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_7 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_7 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III
$\mathbf{B_{122}} =$	$-\left(x_7 + y_7 - z_7 - \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_7 - y_7 + z_7 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_7 - y_7 - z_7 + \frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_7 - \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_7 - \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_7 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(96h)	H III

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