$Be[BH_4]_2$ Structure: A2BC8_tI176_110_2b_b_8b-001

This structure previously used the label(s) `A2BC8_tI176_110_2b_b_8b`. Calls to these addresses will be redirected here.

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- D. Hicks, M. J. Mehl, M. Esters, C. Oses, O. Levy, G. L. W. Hart, C. Toher, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 3*, Comput. Mater. Sci. **199**, 110450 (2021), doi: 10.1016/j.commatsci.2021.110450.

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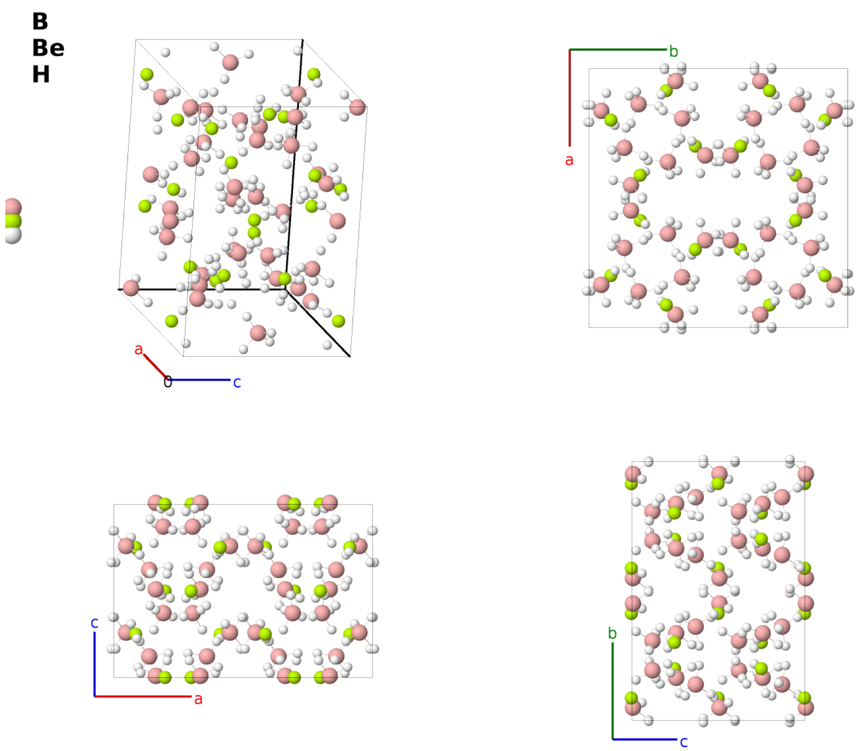
https://aflow.org/prototype-encyclopedia/29CG

https://aflow.org/prototype-encyclopedia/A2BC8_tI176_110_2b_b_8b-001

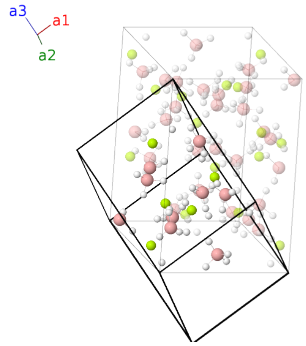


Prototype	B_2BeH_8
AFLOW prototype label	A2BC8_tI176_110_2b_b_8b-001
ICSD	10315
CCDC	1162224
Pearson symbol	tI176
Space group number	110
Space group symbol	$I4_1cd$
AFLOW prototype command	`aflow --proto=A2BC8_tI176_110_2b_b_8b-001` `--params=`$a, c/a, x_1, y_1, z_1, x_2, y_2, z_2, x_3, y_3, z_3, x_4, y_4, z_4, x_5, y_5, z_5, x_6, y_6, z_6, x_7, y_7, z_7, x_8, y_8, z_8, x_9, y_9, z_9, x_{10}, y_{10}, z_{10}, x_{11}, y_{11}, z_{11}$

- Space group $I4_1cd$ #110 allows an arbitary placement of the z-axis origin, and we put a beryllium atom there by setting $z_3 = 0$.

Body-centered Tetragonal primitive vectors

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



Basis vectors

	Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$ =	$\left(y_1 + z_1\right)\,\mathbf{a}_1 + \left(x_1 + z_1\right)\,\mathbf{a}_2 + \left(x_1 + y_1\right)\,\mathbf{a}_3$	=	$ax_1\,\mathbf{\hat{x}} + ay_1\,\mathbf{\hat{y}} + cz_1\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_2}$ =	$-\left(y_1 - z_1\right)\,\mathbf{a}_1 - \left(x_1 - z_1\right)\,\mathbf{a}_2 - \left(x_1 + y_1\right)\,\mathbf{a}_3$	=	$-ax_1\,\mathbf{\hat{x}} - ay_1\,\mathbf{\hat{y}} + cz_1\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_3}$ =	$\left(x_1 + z_1 + \frac{3}{4}\right)\,\mathbf{a}_1 + \left(-y_1 + z_1 + \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_1 - y_1 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-ay_1\,\mathbf{\hat{x}} + a\left(x_1 + \frac{1}{2}\right)\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_4}$ =	$\left(-x_1 + z_1 + \frac{3}{4}\right)\,\mathbf{a}_1 + \left(y_1 + z_1 + \frac{1}{4}\right)\,\mathbf{a}_2 + \left(-x_1 + y_1 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$ay_1\,\mathbf{\hat{x}} - a\left(x_1 - \frac{1}{2}\right)\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_5}$ =	$\left(-y_1 + z_1 + \frac{1}{2}\right)\,\mathbf{a}_1 + \left(x_1 + z_1 + \frac{1}{2}\right)\,\mathbf{a}_2 + \left(x_1 - y_1\right)\,\mathbf{a}_3$	=	$ax_1\,\mathbf{\hat{x}} - ay_1\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_6}$ =	$\left(y_1 + z_1 + \frac{1}{2}\right)\,\mathbf{a}_1 + \left(-x_1 + z_1 + \frac{1}{2}\right)\,\mathbf{a}_2 - \left(x_1 - y_1\right)\,\mathbf{a}_3$	=	$-ax_1\,\mathbf{\hat{x}} + ay_1\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_7}$ =	$\left(-x_1 + z_1 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(-y_1 + z_1 + \frac{3}{4}\right)\,\mathbf{a}_2 - \left(x_1 + y_1 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(y_1 - \frac{1}{2}\right)\,\mathbf{\hat{x}} - ax_1\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_8}$ =	$\left(x_1 + z_1 + \frac{1}{4}\right)\,\mathbf{a}_1 + \left(y_1 + z_1 + \frac{3}{4}\right)\,\mathbf{a}_2 + \left(x_1 + y_1 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$a\left(y_1 + \frac{1}{2}\right)\,\mathbf{\hat{x}} + ax_1\,\mathbf{\hat{y}} + c\left(z_1 + \frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	B I
$\mathbf{B_9}$ =	$\left(y_2 + z_2\right)\,\mathbf{a}_1 + \left(x_2 + z_2\right)\,\mathbf{a}_2 + \left(x_2 + y_2\right)\,\mathbf{a}_3$	=	$ax_2\,\mathbf{\hat{x}} + ay_2\,\mathbf{\hat{y}} + cz_2\,\mathbf{\hat{z}}$	(16b)	B II
$\mathbf{B_{10}}$ =	$-\left(y_2 - z_2\right)\,\mathbf{a}_1 - \left(x_2 - z_2\right)\,\mathbf{a}_2 - \left(x_2 + y_2\right)\,\mathbf{a}_3$	=	$-ax_2\,\mathbf{\hat{x}} - ay_2\,\mathbf{\hat{y}} + cz_2\,\mathbf{\hat{z}}$	(16b)	B II
$\mathbf{B_{11}}$ =	$\left(x_2 + z_2 + \frac{3}{4}\right)\,\mathbf{a}_1 + \left(-y_2 + z_2 + \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_2 - y_2 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-ay_2\,\mathbf{\hat{x}} + a\left(x_2 + \frac{1}{2}\right)\,\mathbf{\hat{y}} + c\left(z_2 + \frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	B II

$\mathbf{B_{12}}$	$=$	$\left(-x_2+z_2+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_2+z_2+\frac{1}{4}\right)\,\mathbf{a}_2+\left(-x_2+y_2+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_2\,\hat{\mathbf{x}}-a\left(x_2-\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_2+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	B II
$\mathbf{B_{13}}$	$=$	$\left(-y_2+z_2+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_2+z_2+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_2-y_2\right)\,\mathbf{a}_3$	$=$	$ax_2\,\hat{\mathbf{x}}-ay_2\,\hat{\mathbf{y}}+c\left(z_2+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	B II
$\mathbf{B_{14}}$	$=$	$\left(y_2+z_2+\frac{1}{2}\right)\,\mathbf{a}_1+\left(-x_2+z_2+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_2-y_2\right)\,\mathbf{a}_3$	$=$	$-ax_2\,\hat{\mathbf{x}}+ay_2\,\hat{\mathbf{y}}+c\left(z_2+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	B II
$\mathbf{B_{15}}$	$=$	$\left(-x_2+z_2+\frac{1}{4}\right)\,\mathbf{a}_1+\left(-y_2+z_2+\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_2+y_2-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_2-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_2\,\hat{\mathbf{y}}+c\left(z_2+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	B II
$\mathbf{B_{16}}$	$=$	$\left(x_2+z_2+\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_2+z_2+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_2+y_2+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_2+\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_2\,\hat{\mathbf{y}}+c\left(z_2+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	B II
$\mathbf{B_{17}}$	$=$	$\left(y_3+z_3\right)\,\mathbf{a}_1+\left(x_3+z_3\right)\,\mathbf{a}_2+\left(x_3+y_3\right)\,\mathbf{a}_3$	$=$	$ax_3\,\hat{\mathbf{x}}+ay_3\,\hat{\mathbf{y}}+cz_3\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{18}}$	$=$	$-\left(y_3-z_3\right)\,\mathbf{a}_1-\left(x_3-z_3\right)\,\mathbf{a}_2-\left(x_3+y_3\right)\,\mathbf{a}_3$	$=$	$-ax_3\,\hat{\mathbf{x}}-ay_3\,\hat{\mathbf{y}}+cz_3\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{19}}$	$=$	$\left(x_3+z_3+\frac{3}{4}\right)\,\mathbf{a}_1+\left(-y_3+z_3+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_3-y_3+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_3\,\hat{\mathbf{x}}+a\left(x_3+\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{20}}$	$=$	$\left(-x_3+z_3+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_3+z_3+\frac{1}{4}\right)\,\mathbf{a}_2+\left(-x_3+y_3+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_3\,\hat{\mathbf{x}}-a\left(x_3-\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{21}}$	$=$	$\left(-y_3+z_3+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_3+z_3+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_3-y_3\right)\,\mathbf{a}_3$	$=$	$ax_3\,\hat{\mathbf{x}}-ay_3\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{22}}$	$=$	$\left(y_3+z_3+\frac{1}{2}\right)\,\mathbf{a}_1+\left(-x_3+z_3+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_3-y_3\right)\,\mathbf{a}_3$	$=$	$-ax_3\,\hat{\mathbf{x}}+ay_3\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{23}}$	$=$	$\left(-x_3+z_3+\frac{1}{4}\right)\,\mathbf{a}_1+\left(-y_3+z_3+\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_3+y_3-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_3-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_3\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{24}}$	$=$	$\left(x_3+z_3+\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_3+z_3+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_3+y_3+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_3+\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_3\,\hat{\mathbf{y}}+c\left(z_3+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	Be I
$\mathbf{B_{25}}$	$=$	$\left(y_4+z_4\right)\,\mathbf{a}_1+\left(x_4+z_4\right)\,\mathbf{a}_2+\left(x_4+y_4\right)\,\mathbf{a}_3$	$=$	$ax_4\,\hat{\mathbf{x}}+ay_4\,\hat{\mathbf{y}}+cz_4\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{26}}$	$=$	$-\left(y_4-z_4\right)\,\mathbf{a}_1-\left(x_4-z_4\right)\,\mathbf{a}_2-\left(x_4+y_4\right)\,\mathbf{a}_3$	$=$	$-ax_4\,\hat{\mathbf{x}}-ay_4\,\hat{\mathbf{y}}+cz_4\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{27}}$	$=$	$\left(x_4+z_4+\frac{3}{4}\right)\,\mathbf{a}_1+\left(-y_4+z_4+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_4-y_4+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_4\,\hat{\mathbf{x}}+a\left(x_4+\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{28}}$	$=$	$\left(-x_4+z_4+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_4+z_4+\frac{1}{4}\right)\,\mathbf{a}_2+\left(-x_4+y_4+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_4\,\hat{\mathbf{x}}-a\left(x_4-\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{29}}$	$=$	$\left(-y_4+z_4+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_4+z_4+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_4-y_4\right)\,\mathbf{a}_3$	$=$	$ax_4\,\hat{\mathbf{x}}-ay_4\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{30}}$	$=$	$\left(y_4+z_4+\frac{1}{2}\right)\,\mathbf{a}_1+\left(-x_4+z_4+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_4-y_4\right)\,\mathbf{a}_3$	$=$	$-ax_4\,\hat{\mathbf{x}}+ay_4\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H I

$\mathbf{B_{31}}$	$=$	$\left(-x_4+z_4+\frac{1}{4}\right)\,\mathbf{a}_1+\left(-y_4+z_4+\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_4+y_4-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_4-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_4\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{32}}$	$=$	$\left(x_4+z_4+\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_4+z_4+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_4+y_4+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_4+\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_4\,\hat{\mathbf{y}}+c\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H I
$\mathbf{B_{33}}$	$=$	$\left(y_5+z_5\right)\,\mathbf{a}_1+\left(x_5+z_5\right)\,\mathbf{a}_2+\left(x_5+y_5\right)\,\mathbf{a}_3$	$=$	$ax_5\,\hat{\mathbf{x}}+ay_5\,\hat{\mathbf{y}}+cz_5\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{34}}$	$=$	$-\left(y_5-z_5\right)\,\mathbf{a}_1-\left(x_5-z_5\right)\,\mathbf{a}_2-\left(x_5+y_5\right)\,\mathbf{a}_3$	$=$	$-ax_5\,\hat{\mathbf{x}}-ay_5\,\hat{\mathbf{y}}+cz_5\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{35}}$	$=$	$\left(x_5+z_5+\frac{3}{4}\right)\,\mathbf{a}_1+\left(-y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_5-y_5+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_5\,\hat{\mathbf{x}}+a\left(x_5+\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{36}}$	$=$	$\left(-x_5+z_5+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_2+\left(-x_5+y_5+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_5\,\hat{\mathbf{x}}-a\left(x_5-\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{37}}$	$=$	$\left(-y_5+z_5+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_5+z_5+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_5-y_5\right)\,\mathbf{a}_3$	$=$	$ax_5\,\hat{\mathbf{x}}-ay_5\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{38}}$	$=$	$\left(y_5+z_5+\frac{1}{2}\right)\,\mathbf{a}_1+\left(-x_5+z_5+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_5-y_5\right)\,\mathbf{a}_3$	$=$	$-ax_5\,\hat{\mathbf{x}}+ay_5\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{39}}$	$=$	$\left(-x_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_1+\left(-y_5+z_5+\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_5+y_5-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_5-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_5\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{40}}$	$=$	$\left(x_5+z_5+\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_5+z_5+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_5+y_5+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_5+\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_5\,\hat{\mathbf{y}}+c\left(z_5+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H II
$\mathbf{B_{41}}$	$=$	$\left(y_6+z_6\right)\,\mathbf{a}_1+\left(x_6+z_6\right)\,\mathbf{a}_2+\left(x_6+y_6\right)\,\mathbf{a}_3$	$=$	$ax_6\,\hat{\mathbf{x}}+ay_6\,\hat{\mathbf{y}}+cz_6\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{42}}$	$=$	$-\left(y_6-z_6\right)\,\mathbf{a}_1-\left(x_6-z_6\right)\,\mathbf{a}_2-\left(x_6+y_6\right)\,\mathbf{a}_3$	$=$	$-ax_6\,\hat{\mathbf{x}}-ay_6\,\hat{\mathbf{y}}+cz_6\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{43}}$	$=$	$\left(x_6+z_6+\frac{3}{4}\right)\,\mathbf{a}_1+\left(-y_6+z_6+\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_6-y_6+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_6\,\hat{\mathbf{x}}+a\left(x_6+\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{44}}$	$=$	$\left(-x_6+z_6+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_6+z_6+\frac{1}{4}\right)\,\mathbf{a}_2+\left(-x_6+y_6+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_6\,\hat{\mathbf{x}}-a\left(x_6-\frac{1}{2}\right)\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{45}}$	$=$	$\left(-y_6+z_6+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_6+z_6+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_6-y_6\right)\,\mathbf{a}_3$	$=$	$ax_6\,\hat{\mathbf{x}}-ay_6\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{46}}$	$=$	$\left(y_6+z_6+\frac{1}{2}\right)\,\mathbf{a}_1+\left(-x_6+z_6+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_6-y_6\right)\,\mathbf{a}_3$	$=$	$-ax_6\,\hat{\mathbf{x}}+ay_6\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{47}}$	$=$	$\left(-x_6+z_6+\frac{1}{4}\right)\,\mathbf{a}_1+\left(-y_6+z_6+\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_6+y_6-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_6\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{48}}$	$=$	$\left(x_6+z_6+\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_6+z_6+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_6+y_6+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_6+\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_6\,\hat{\mathbf{y}}+c\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(16b)	H III
$\mathbf{B_{49}}$	$=$	$\left(y_7+z_7\right)\,\mathbf{a}_1+\left(x_7+z_7\right)\,\mathbf{a}_2+\left(x_7+y_7\right)\,\mathbf{a}_3$	$=$	$ax_7\,\hat{\mathbf{x}}+ay_7\,\hat{\mathbf{y}}+cz_7\,\hat{\mathbf{z}}$	(16b)	H IV

$\mathbf{B_{50}}$	$=$	$-\left(y_{7}-z_{7}\right)\,\mathbf{a}_{1}-\left(x_{7}-z_{7}\right)\,\mathbf{a}_{2}-\left(x_{7}+y_{7}\right)\,\mathbf{a}_{3}$	$=$	$-ax_{7}\,\mathbf{\hat{x}}-ay_{7}\,\mathbf{\hat{y}}+cz_{7}\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{51}}$	$=$	$\left(x_{7}+z_{7}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(-y_{7}+z_{7}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(x_{7}-y_{7}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$-ay_{7}\,\mathbf{\hat{x}}+a\left(x_{7}+\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{52}}$	$=$	$\left(-x_{7}+z_{7}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(y_{7}+z_{7}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(-x_{7}+y_{7}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$ay_{7}\,\mathbf{\hat{x}}-a\left(x_{7}-\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{53}}$	$=$	$\left(-y_{7}+z_{7}+\frac{1}{2}\right)\,\mathbf{a}_{1}+\left(x_{7}+z_{7}+\frac{1}{2}\right)\,\mathbf{a}_{2}+\left(x_{7}-y_{7}\right)\,\mathbf{a}_{3}$	$=$	$ax_{7}\,\mathbf{\hat{x}}-ay_{7}\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{54}}$	$=$	$\left(y_{7}+z_{7}+\frac{1}{2}\right)\,\mathbf{a}_{1}+\left(-x_{7}+z_{7}+\frac{1}{2}\right)\,\mathbf{a}_{2}-\left(x_{7}-y_{7}\right)\,\mathbf{a}_{3}$	$=$	$-ax_{7}\,\mathbf{\hat{x}}+ay_{7}\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{55}}$	$=$	$\left(-x_{7}+z_{7}+\frac{1}{4}\right)\,\mathbf{a}_{1}+\left(-y_{7}+z_{7}+\frac{3}{4}\right)\,\mathbf{a}_{2}-\left(x_{7}+y_{7}-\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$-a\left(y_{7}-\frac{1}{2}\right)\,\mathbf{\hat{x}}-ax_{7}\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{56}}$	$=$	$\left(x_{7}+z_{7}+\frac{1}{4}\right)\,\mathbf{a}_{1}+\left(y_{7}+z_{7}+\frac{3}{4}\right)\,\mathbf{a}_{2}+\left(x_{7}+y_{7}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$a\left(y_{7}+\frac{1}{2}\right)\,\mathbf{\hat{x}}+ax_{7}\,\mathbf{\hat{y}}+c\left(z_{7}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H IV
$\mathbf{B_{57}}$	$=$	$\left(y_{8}+z_{8}\right)\,\mathbf{a}_{1}+\left(x_{8}+z_{8}\right)\,\mathbf{a}_{2}+\left(x_{8}+y_{8}\right)\,\mathbf{a}_{3}$	$=$	$ax_{8}\,\mathbf{\hat{x}}+ay_{8}\,\mathbf{\hat{y}}+cz_{8}\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{58}}$	$=$	$-\left(y_{8}-z_{8}\right)\,\mathbf{a}_{1}-\left(x_{8}-z_{8}\right)\,\mathbf{a}_{2}-\left(x_{8}+y_{8}\right)\,\mathbf{a}_{3}$	$=$	$-ax_{8}\,\mathbf{\hat{x}}-ay_{8}\,\mathbf{\hat{y}}+cz_{8}\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{59}}$	$=$	$\left(x_{8}+z_{8}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(-y_{8}+z_{8}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(x_{8}-y_{8}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$-ay_{8}\,\mathbf{\hat{x}}+a\left(x_{8}+\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{60}}$	$=$	$\left(-x_{8}+z_{8}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(y_{8}+z_{8}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(-x_{8}+y_{8}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$ay_{8}\,\mathbf{\hat{x}}-a\left(x_{8}-\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{61}}$	$=$	$\left(-y_{8}+z_{8}+\frac{1}{2}\right)\,\mathbf{a}_{1}+\left(x_{8}+z_{8}+\frac{1}{2}\right)\,\mathbf{a}_{2}+\left(x_{8}-y_{8}\right)\,\mathbf{a}_{3}$	$=$	$ax_{8}\,\mathbf{\hat{x}}-ay_{8}\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{62}}$	$=$	$\left(y_{8}+z_{8}+\frac{1}{2}\right)\,\mathbf{a}_{1}+\left(-x_{8}+z_{8}+\frac{1}{2}\right)\,\mathbf{a}_{2}-\left(x_{8}-y_{8}\right)\,\mathbf{a}_{3}$	$=$	$-ax_{8}\,\mathbf{\hat{x}}+ay_{8}\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{2}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{63}}$	$=$	$\left(-x_{8}+z_{8}+\frac{1}{4}\right)\,\mathbf{a}_{1}+\left(-y_{8}+z_{8}+\frac{3}{4}\right)\,\mathbf{a}_{2}-\left(x_{8}+y_{8}-\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$-a\left(y_{8}-\frac{1}{2}\right)\,\mathbf{\hat{x}}-ax_{8}\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{64}}$	$=$	$\left(x_{8}+z_{8}+\frac{1}{4}\right)\,\mathbf{a}_{1}+\left(y_{8}+z_{8}+\frac{3}{4}\right)\,\mathbf{a}_{2}+\left(x_{8}+y_{8}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$a\left(y_{8}+\frac{1}{2}\right)\,\mathbf{\hat{x}}+ax_{8}\,\mathbf{\hat{y}}+c\left(z_{8}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H V
$\mathbf{B_{65}}$	$=$	$\left(y_{9}+z_{9}\right)\,\mathbf{a}_{1}+\left(x_{9}+z_{9}\right)\,\mathbf{a}_{2}+\left(x_{9}+y_{9}\right)\,\mathbf{a}_{3}$	$=$	$ax_{9}\,\mathbf{\hat{x}}+ay_{9}\,\mathbf{\hat{y}}+cz_{9}\,\mathbf{\hat{z}}$	(16b)	H VI
$\mathbf{B_{66}}$	$=$	$-\left(y_{9}-z_{9}\right)\,\mathbf{a}_{1}-\left(x_{9}-z_{9}\right)\,\mathbf{a}_{2}-\left(x_{9}+y_{9}\right)\,\mathbf{a}_{3}$	$=$	$-ax_{9}\,\mathbf{\hat{x}}-ay_{9}\,\mathbf{\hat{y}}+cz_{9}\,\mathbf{\hat{z}}$	(16b)	H VI
$\mathbf{B_{67}}$	$=$	$\left(x_{9}+z_{9}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(-y_{9}+z_{9}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(x_{9}-y_{9}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$-ay_{9}\,\mathbf{\hat{x}}+a\left(x_{9}+\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{9}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H VI
$\mathbf{B_{68}}$	$=$	$\left(-x_{9}+z_{9}+\frac{3}{4}\right)\,\mathbf{a}_{1}+\left(y_{9}+z_{9}+\frac{1}{4}\right)\,\mathbf{a}_{2}+\left(-x_{9}+y_{9}+\frac{1}{2}\right)\,\mathbf{a}_{3}$	$=$	$ay_{9}\,\mathbf{\hat{x}}-a\left(x_{9}-\frac{1}{2}\right)\,\mathbf{\hat{y}}+c\left(z_{9}+\frac{1}{4}\right)\,\mathbf{\hat{z}}$	(16b)	H VI

$$\mathbf{B_{69}} = \left(-y_9 + z_9 + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(x_9 + z_9 + \tfrac{1}{2}\right) \mathbf{a}_2 + \left(x_9 - y_9\right) \mathbf{a}_3 = a x_9 \,\hat{\mathbf{x}} - a y_9 \,\hat{\mathbf{y}} + c \left(z_9 + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VI}$$

$$\mathbf{B_{70}} = \left(y_9 + z_9 + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(-x_9 + z_9 + \tfrac{1}{2}\right) \mathbf{a}_2 - \left(x_9 - y_9\right) \mathbf{a}_3 = -a x_9 \,\hat{\mathbf{x}} + a y_9 \,\hat{\mathbf{y}} + c \left(z_9 + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VI}$$

$$\mathbf{B_{71}} = \left(-x_9 + z_9 + \tfrac{1}{4}\right) \mathbf{a}_1 + \left(-y_9 + z_9 + \tfrac{3}{4}\right) \mathbf{a}_2 - \left(x_9 + y_9 - \tfrac{1}{2}\right) \mathbf{a}_3 = -a \left(y_9 - \tfrac{1}{2}\right) \hat{\mathbf{x}} - a x_9 \,\hat{\mathbf{y}} + c \left(z_9 + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VI}$$

$$\mathbf{B_{72}} = \left(x_9 + z_9 + \tfrac{1}{4}\right) \mathbf{a}_1 + \left(y_9 + z_9 + \tfrac{3}{4}\right) \mathbf{a}_2 + \left(x_9 + y_9 + \tfrac{1}{2}\right) \mathbf{a}_3 = a \left(y_9 + \tfrac{1}{2}\right) \hat{\mathbf{x}} + a x_9 \,\hat{\mathbf{y}} + c \left(z_9 + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VI}$$

$$\mathbf{B_{73}} = \left(y_{10} + z_{10}\right) \mathbf{a}_1 + \left(x_{10} + z_{10}\right) \mathbf{a}_2 + \left(x_{10} + y_{10}\right) \mathbf{a}_3 = a x_{10} \,\hat{\mathbf{x}} + a y_{10} \,\hat{\mathbf{y}} + c z_{10} \,\hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{74}} = -\left(y_{10} - z_{10}\right) \mathbf{a}_1 - \left(x_{10} - z_{10}\right) \mathbf{a}_2 - \left(x_{10} + y_{10}\right) \mathbf{a}_3 = -a x_{10} \,\hat{\mathbf{x}} - a y_{10} \,\hat{\mathbf{y}} + c z_{10} \,\hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{75}} = \left(x_{10} + z_{10} + \tfrac{3}{4}\right) \mathbf{a}_1 + \left(-y_{10} + z_{10} + \tfrac{1}{4}\right) \mathbf{a}_2 + \left(x_{10} - y_{10} + \tfrac{1}{2}\right) \mathbf{a}_3 = -a y_{10} \,\hat{\mathbf{x}} + a \left(x_{10} + \tfrac{1}{2}\right) \hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{76}} = \left(-x_{10} + z_{10} + \tfrac{3}{4}\right) \mathbf{a}_1 + \left(y_{10} + z_{10} + \tfrac{1}{4}\right) \mathbf{a}_2 + \left(-x_{10} + y_{10} + \tfrac{1}{2}\right) \mathbf{a}_3 = a y_{10} \,\hat{\mathbf{x}} - a \left(x_{10} - \tfrac{1}{2}\right) \hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{77}} = \left(-y_{10} + z_{10} + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(x_{10} + z_{10} + \tfrac{1}{2}\right) \mathbf{a}_2 + \left(x_{10} - y_{10}\right) \mathbf{a}_3 = a x_{10} \,\hat{\mathbf{x}} - a y_{10} \,\hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{78}} = \left(y_{10} + z_{10} + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(-x_{10} + z_{10} + \tfrac{1}{2}\right) \mathbf{a}_2 - \left(x_{10} - y_{10}\right) \mathbf{a}_3 = -a x_{10} \,\hat{\mathbf{x}} + a y_{10} \,\hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{79}} = \left(-x_{10} + z_{10} + \tfrac{1}{4}\right) \mathbf{a}_1 + \left(-y_{10} + z_{10} + \tfrac{3}{4}\right) \mathbf{a}_2 - \left(x_{10} + y_{10} - \tfrac{1}{2}\right) \mathbf{a}_3 = -a \left(y_{10} - \tfrac{1}{2}\right) \hat{\mathbf{x}} - a x_{10} \,\hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{80}} = \left(x_{10} + z_{10} + \tfrac{1}{4}\right) \mathbf{a}_1 + \left(y_{10} + z_{10} + \tfrac{3}{4}\right) \mathbf{a}_2 + \left(x_{10} + y_{10} + \tfrac{1}{2}\right) \mathbf{a}_3 = a \left(y_{10} + \tfrac{1}{2}\right) \hat{\mathbf{x}} + a x_{10} \,\hat{\mathbf{y}} + c \left(z_{10} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VII}$$

$$\mathbf{B_{81}} = \left(y_{11} + z_{11}\right) \mathbf{a}_1 + \left(x_{11} + z_{11}\right) \mathbf{a}_2 + \left(x_{11} + y_{11}\right) \mathbf{a}_3 = a x_{11} \,\hat{\mathbf{x}} + a y_{11} \,\hat{\mathbf{y}} + c z_{11} \,\hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{82}} = -\left(y_{11} - z_{11}\right) \mathbf{a}_1 - \left(x_{11} - z_{11}\right) \mathbf{a}_2 - \left(x_{11} + y_{11}\right) \mathbf{a}_3 = -a x_{11} \,\hat{\mathbf{x}} - a y_{11} \,\hat{\mathbf{y}} + c z_{11} \,\hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{83}} = \left(x_{11} + z_{11} + \tfrac{3}{4}\right) \mathbf{a}_1 + \left(-y_{11} + z_{11} + \tfrac{1}{4}\right) \mathbf{a}_2 + \left(x_{11} - y_{11} + \tfrac{1}{2}\right) \mathbf{a}_3 = -a y_{11} \,\hat{\mathbf{x}} + a \left(x_{11} + \tfrac{1}{2}\right) \hat{\mathbf{y}} + c \left(z_{11} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{84}} = \left(-x_{11} + z_{11} + \tfrac{3}{4}\right) \mathbf{a}_1 + \left(y_{11} + z_{11} + \tfrac{1}{4}\right) \mathbf{a}_2 + \left(-x_{11} + y_{11} + \tfrac{1}{2}\right) \mathbf{a}_3 = a y_{11} \,\hat{\mathbf{x}} - a \left(x_{11} - \tfrac{1}{2}\right) \hat{\mathbf{y}} + c \left(z_{11} + \tfrac{1}{4}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{85}} = \left(-y_{11} + z_{11} + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(x_{11} + z_{11} + \tfrac{1}{2}\right) \mathbf{a}_2 + \left(x_{11} - y_{11}\right) \mathbf{a}_3 = a x_{11} \,\hat{\mathbf{x}} - a y_{11} \,\hat{\mathbf{y}} + c \left(z_{11} + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{86}} = \left(y_{11} + z_{11} + \tfrac{1}{2}\right) \mathbf{a}_1 + \left(-x_{11} + z_{11} + \tfrac{1}{2}\right) \mathbf{a}_2 - \left(x_{11} - y_{11}\right) \mathbf{a}_3 = -a x_{11} \,\hat{\mathbf{x}} + a y_{11} \,\hat{\mathbf{y}} + c \left(z_{11} + \tfrac{1}{2}\right) \hat{\mathbf{z}} \qquad \text{(16b)} \qquad \text{H VIII}$$

$$\mathbf{B_{87}} = \left(-x_{11} + z_{11} + \frac{1}{4}\right) \mathbf{a}_1 + \left(-y_{11} + z_{11} + \frac{3}{4}\right) \mathbf{a}_2 - \left(x_{11} + y_{11} - \frac{1}{2}\right) \mathbf{a}_3 = -a \left(y_{11} - \frac{1}{2}\right) \hat{\mathbf{x}} - a x_{11} \hat{\mathbf{y}} + c \left(z_{11} + \frac{1}{4}\right) \hat{\mathbf{z}} \quad \text{(16b)} \quad \text{H VIII}$$

$$\mathbf{B_{88}} = \left(x_{11} + z_{11} + \frac{1}{4}\right) \mathbf{a}_1 + \left(y_{11} + z_{11} + \frac{3}{4}\right) \mathbf{a}_2 + \left(x_{11} + y_{11} + \frac{1}{2}\right) \mathbf{a}_3 = a \left(y_{11} + \frac{1}{2}\right) \hat{\mathbf{x}} + a x_{11} \hat{\mathbf{y}} + c \left(z_{11} + \frac{1}{4}\right) \hat{\mathbf{z}} \quad \text{(16b)} \quad \text{H VIII}$$

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