$SrCuTe_2O_6$ Structure: AB6CD2_cP120_213_d_3e_ac_e-001

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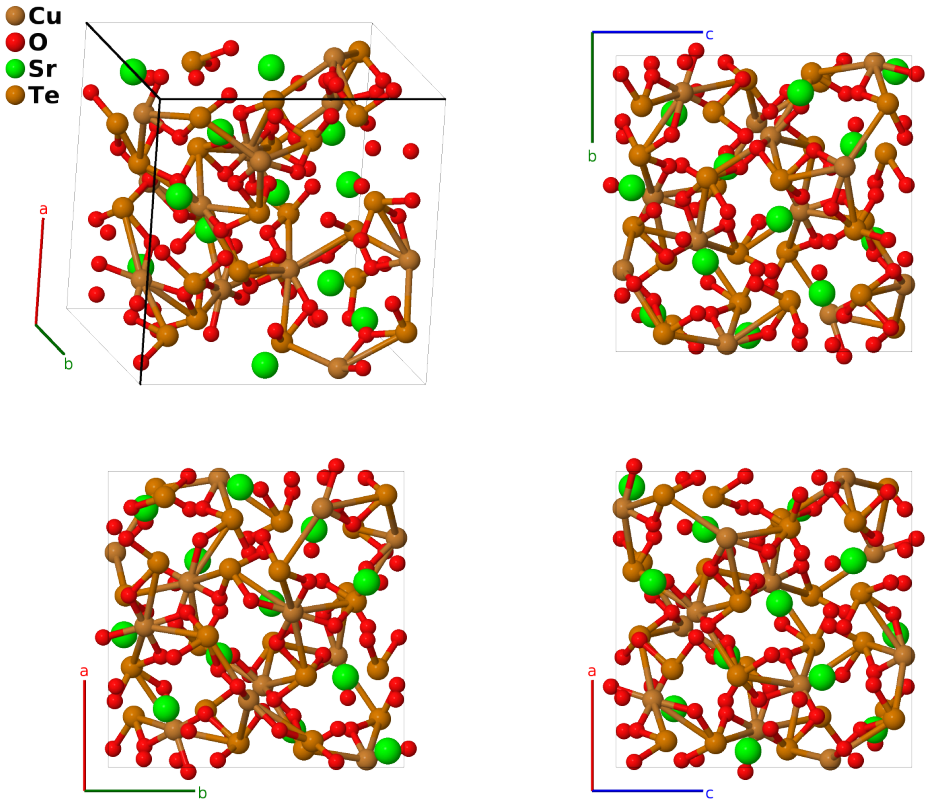
https://aflow.org/p/1AJT

https://aflow.org/p/AB6CD2_cP120_213_d_3e_ac_e-001



Prototype	CuO_6SrTe_2
AFLOW prototype label	AB6CD2_cP120_213_d_3e_ac_e-001
ICSD	32364
Pearson symbol	cP120
Space group number	213
Space group symbol	$P4_132$
AFLOW prototype command	`aflow --proto=AB6CD2_cP120_213_d_3e_ac_e-001 --params=`$a, x_2, y_3, x_4, y_4, z_4, x_5, y_5, z_5, x_6, y_6, z_6, x_7, y_7, z_7$

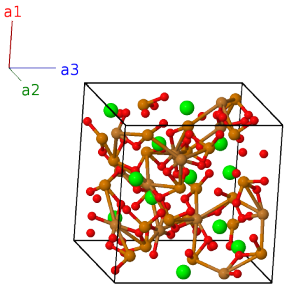
Other compounds with this structure
$BaCuTe_2O_6$, $PbCuTe_2O_6$

- We have shifted the origin so that the Sr-I atoms, located on the (4b) (7/8 7/8 7/8) Wyckoff positions by (Chillal, 2020) are now on the (4a) (3/8 3/8 3/8) sites.

- This structure can also be expressed in the enantiomorphic space group $P4_332$ #212.

Simple Cubic primitive vectors

$$\mathbf{a_1} = a\,\hat{\mathbf{x}}$$
$$\mathbf{a_2} = a\,\hat{\mathbf{y}}$$
$$\mathbf{a_3} = a\,\hat{\mathbf{z}}$$



Basis vectors

		Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$	=	$\frac{3}{8}\,\mathbf{a}_1 + \frac{3}{8}\,\mathbf{a}_2 + \frac{3}{8}\,\mathbf{a}_3$	=	$\frac{3}{8}a\,\hat{\mathbf{x}} + \frac{3}{8}a\,\hat{\mathbf{y}} + \frac{3}{8}a\,\hat{\mathbf{z}}$	(4a)	Sr I
$\mathbf{B_2}$	=	$\frac{1}{8}\,\mathbf{a}_1 + \frac{5}{8}\,\mathbf{a}_2 + \frac{7}{8}\,\mathbf{a}_3$	=	$\frac{1}{8}a\,\hat{\mathbf{x}} + \frac{5}{8}a\,\hat{\mathbf{y}} + \frac{7}{8}a\,\hat{\mathbf{z}}$	(4a)	Sr I
$\mathbf{B_3}$	=	$\frac{5}{8}\,\mathbf{a}_1 + \frac{7}{8}\,\mathbf{a}_2 + \frac{1}{8}\,\mathbf{a}_3$	=	$\frac{5}{8}a\,\hat{\mathbf{x}} + \frac{7}{8}a\,\hat{\mathbf{y}} + \frac{1}{8}a\,\hat{\mathbf{z}}$	(4a)	Sr I
$\mathbf{B_4}$	=	$\frac{7}{8}\,\mathbf{a}_1 + \frac{1}{8}\,\mathbf{a}_2 + \frac{5}{8}\,\mathbf{a}_3$	=	$\frac{7}{8}a\,\hat{\mathbf{x}} + \frac{1}{8}a\,\hat{\mathbf{y}} + \frac{5}{8}a\,\hat{\mathbf{z}}$	(4a)	Sr I
$\mathbf{B_5}$	=	$x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{x}} + ax_2\,\hat{\mathbf{y}} + ax_2\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_6}$	=	$-\left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{x}} - ax_2\,\hat{\mathbf{y}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_7}$	=	$-x_2\,\mathbf{a}_1 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_2 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{x}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_8}$	=	$\left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_1 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{y}} - ax_2\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_9}$	=	$\left(x_2 + \frac{3}{4}\right)\,\mathbf{a}_1 + \left(x_2 + \frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_2 - \frac{1}{4}\right)\,\mathbf{a}_3$	=	$a\left(x_2 + \frac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(x_2 + \frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_2 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_{10}}$	=	$-\left(x_2 - \frac{3}{4}\right)\,\mathbf{a}_1 - \left(x_2 - \frac{3}{4}\right)\,\mathbf{a}_2 - \left(x_2 - \frac{3}{4}\right)\,\mathbf{a}_3$	=	$-a\left(x_2 - \frac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(x_2 - \frac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(x_2 - \frac{3}{4}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_{11}}$	=	$\left(x_2 + \frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_2 - \frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_2 + \frac{3}{4}\right)\,\mathbf{a}_3$	=	$a\left(x_2 + \frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(x_2 - \frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_2 + \frac{3}{4}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_{12}}$	=	$-\left(x_2 - \frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_2 + \frac{3}{4}\right)\,\mathbf{a}_2 + \left(x_2 + \frac{1}{4}\right)\,\mathbf{a}_3$	=	$-a\left(x_2 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_2 + \frac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(x_2 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(8c)	Sr II
$\mathbf{B_{13}}$	=	$\frac{1}{8}\,\mathbf{a}_1 + y_3\,\mathbf{a}_2 + \left(y_3 + \frac{1}{4}\right)\,\mathbf{a}_3$	=	$\frac{1}{8}a\,\hat{\mathbf{x}} + ay_3\,\hat{\mathbf{y}} + a\left(y_3 + \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{14}}$	=	$\frac{3}{8}\,\mathbf{a}_1 - y_3\,\mathbf{a}_2 + \left(y_3 + \frac{3}{4}\right)\,\mathbf{a}_3$	=	$\frac{3}{8}a\,\hat{\mathbf{x}} - ay_3\,\hat{\mathbf{y}} + a\left(y_3 + \frac{3}{4}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{15}}$	=	$\frac{7}{8}\,\mathbf{a}_1 + \left(y_3 + \frac{1}{2}\right)\,\mathbf{a}_2 - \left(y_3 - \frac{1}{4}\right)\,\mathbf{a}_3$	=	$\frac{7}{8}a\,\hat{\mathbf{x}} + a\left(y_3 + \frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(y_3 - \frac{1}{4}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{16}}$	=	$\frac{5}{8}\,\mathbf{a}_1 - \left(y_3 - \frac{1}{2}\right)\,\mathbf{a}_2 - \left(y_3 - \frac{3}{4}\right)\,\mathbf{a}_3$	=	$\frac{5}{8}a\,\hat{\mathbf{x}} - a\left(y_3 - \frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(y_3 - \frac{3}{4}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{17}}$	=	$\left(y_3 + \frac{1}{4}\right)\,\mathbf{a}_1 + \frac{1}{8}\,\mathbf{a}_2 + y_3\,\mathbf{a}_3$	=	$a\left(y_3 + \frac{1}{4}\right)\,\hat{\mathbf{x}} + \frac{1}{8}a\,\hat{\mathbf{y}} + ay_3\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{18}}$	=	$\left(y_3 + \frac{3}{4}\right)\,\mathbf{a}_1 + \frac{3}{8}\,\mathbf{a}_2 - y_3\,\mathbf{a}_3$	=	$a\left(y_3 + \frac{3}{4}\right)\,\hat{\mathbf{x}} + \frac{3}{8}a\,\hat{\mathbf{y}} - ay_3\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{19}}$	=	$-\left(y_3 - \frac{1}{4}\right)\,\mathbf{a}_1 + \frac{7}{8}\,\mathbf{a}_2 + \left(y_3 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(y_3 - \frac{1}{4}\right)\,\hat{\mathbf{x}} + \frac{7}{8}a\,\hat{\mathbf{y}} + a\left(y_3 + \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{20}}$	=	$-\left(y_3 - \frac{3}{4}\right)\,\mathbf{a}_1 + \frac{5}{8}\,\mathbf{a}_2 - \left(y_3 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(y_3 - \frac{3}{4}\right)\,\hat{\mathbf{x}} + \frac{5}{8}a\,\hat{\mathbf{y}} - a\left(y_3 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(12d)	Cu I
$\mathbf{B_{21}}$	=	$y_3\,\mathbf{a}_1 + \left(y_3 + \frac{1}{4}\right)\,\mathbf{a}_2 + \frac{1}{8}\,\mathbf{a}_3$	=	$ay_3\,\hat{\mathbf{x}} + a\left(y_3 + \frac{1}{4}\right)\,\hat{\mathbf{y}} + \frac{1}{8}a\,\hat{\mathbf{z}}$	(12d)	Cu I

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\begin{array}{lcccccll}
\mathbf{B_{22}} & = & -y_3\,\mathbf{a}_1+\left(y_3+\frac{3}{4}\right)\,\mathbf{a}_2+\frac{3}{8}\,\mathbf{a}_3 & = & -ay_3\,\hat{\mathbf{x}}+a\left(y_3+\frac{3}{4}\right)\,\hat{\mathbf{y}}+\frac{3}{8}a\,\hat{\mathbf{z}} & \text{(12d)} & \text{Cu I}\\
\mathbf{B_{23}} & = & \left(y_3+\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_3-\frac{1}{4}\right)\,\mathbf{a}_2+\frac{7}{8}\,\mathbf{a}_3 & = & a\left(y_3+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_3-\frac{1}{4}\right)\,\hat{\mathbf{y}}+\frac{7}{8}a\,\hat{\mathbf{z}} & \text{(12d)} & \text{Cu I}\\
\mathbf{B_{24}} & = & -\left(y_3-\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_3-\frac{3}{4}\right)\,\mathbf{a}_2+\frac{5}{8}\,\mathbf{a}_3 & = & -a\left(y_3-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_3-\frac{3}{4}\right)\,\hat{\mathbf{y}}+\frac{5}{8}a\,\hat{\mathbf{z}} & \text{(12d)} & \text{Cu I}\\
\mathbf{B_{25}} & = & x_4\,\mathbf{a}_1+y_4\,\mathbf{a}_2+z_4\,\mathbf{a}_3 & = & ax_4\,\hat{\mathbf{x}}+ay_4\,\hat{\mathbf{y}}+az_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{26}} & = & -\left(x_4-\frac{1}{2}\right)\,\mathbf{a}_1-y_4\,\mathbf{a}_2+\left(z_4+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(x_4-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ay_4\,\hat{\mathbf{y}}+a\left(z_4+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{27}} & = & -x_4\,\mathbf{a}_1+\left(y_4+\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_4-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -ax_4\,\hat{\mathbf{x}}+a\left(y_4+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_4-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{28}} & = & \left(x_4+\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_4-\frac{1}{2}\right)\,\mathbf{a}_2-z_4\,\mathbf{a}_3 & = & a\left(x_4+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_4-\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{29}} & = & z_4\,\mathbf{a}_1+x_4\,\mathbf{a}_2+y_4\,\mathbf{a}_3 & = & az_4\,\hat{\mathbf{x}}+ax_4\,\hat{\mathbf{y}}+ay_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{30}} & = & \left(z_4+\frac{1}{2}\right)\,\mathbf{a}_1-\left(x_4-\frac{1}{2}\right)\,\mathbf{a}_2-y_4\,\mathbf{a}_3 & = & a\left(z_4+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_4-\frac{1}{2}\right)\,\hat{\mathbf{y}}-ay_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{31}} & = & -\left(z_4-\frac{1}{2}\right)\,\mathbf{a}_1-x_4\,\mathbf{a}_2+\left(y_4+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(z_4-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_4\,\hat{\mathbf{y}}+a\left(y_4+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{32}} & = & -z_4\,\mathbf{a}_1+\left(x_4+\frac{1}{2}\right)\,\mathbf{a}_2-\left(y_4-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -az_4\,\hat{\mathbf{x}}+a\left(x_4+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_4-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{33}} & = & y_4\,\mathbf{a}_1+z_4\,\mathbf{a}_2+x_4\,\mathbf{a}_3 & = & ay_4\,\hat{\mathbf{x}}+az_4\,\hat{\mathbf{y}}+ax_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{34}} & = & -y_4\,\mathbf{a}_1+\left(z_4+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_4-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -ay_4\,\hat{\mathbf{x}}+a\left(z_4+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_4-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{35}} & = & \left(y_4+\frac{1}{2}\right)\,\mathbf{a}_1-\left(z_4-\frac{1}{2}\right)\,\mathbf{a}_2-x_4\,\mathbf{a}_3 & = & a\left(y_4+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_4-\frac{1}{2}\right)\,\hat{\mathbf{y}}-ax_4\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{36}} & = & -\left(y_4-\frac{1}{2}\right)\,\mathbf{a}_1-z_4\,\mathbf{a}_2+\left(x_4+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(y_4-\frac{1}{2}\right)\,\hat{\mathbf{x}}-az_4\,\hat{\mathbf{y}}+a\left(x_4+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{37}} & = & \left(y_4+\frac{3}{4}\right)\,\mathbf{a}_1+\left(x_4+\frac{1}{4}\right)\,\mathbf{a}_2-\left(z_4-\frac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(y_4+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(x_4+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_4-\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{38}} & = & -\left(y_4-\frac{3}{4}\right)\,\mathbf{a}_1-\left(x_4-\frac{3}{4}\right)\,\mathbf{a}_2-\left(z_4-\frac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(y_4-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(x_4-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(z_4-\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{39}} & = & \left(y_4+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_4-\frac{1}{4}\right)\,\mathbf{a}_2+\left(z_4+\frac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(y_4+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_4-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_4+\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{40}} & = & -\left(y_4-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_4+\frac{3}{4}\right)\,\mathbf{a}_2+\left(z_4+\frac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(y_4-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_4+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{41}} & = & \left(x_4+\frac{3}{4}\right)\,\mathbf{a}_1+\left(z_4+\frac{1}{4}\right)\,\mathbf{a}_2-\left(y_4-\frac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(x_4+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_4-\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{42}} & = & -\left(x_4-\frac{1}{4}\right)\,\mathbf{a}_1+\left(z_4+\frac{3}{4}\right)\,\mathbf{a}_2+\left(y_4+\frac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(x_4-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_4+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(y_4+\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{43}} & = & -\left(x_4-\frac{3}{4}\right)\,\mathbf{a}_1-\left(z_4-\frac{3}{4}\right)\,\mathbf{a}_2-\left(y_4-\frac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(x_4-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(z_4-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(y_4-\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{44}} & = & \left(x_4+\frac{1}{4}\right)\,\mathbf{a}_1-\left(z_4-\frac{1}{4}\right)\,\mathbf{a}_2+\left(y_4+\frac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(x_4+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_4-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_4+\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{45}} & = & \left(z_4+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_4+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_4-\frac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(z_4+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(y_4+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(x_4-\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{46}} & = & \left(z_4+\frac{1}{4}\right)\,\mathbf{a}_1-\left(y_4-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_4+\frac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(z_4+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(y_4-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(x_4+\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{47}} & = & -\left(z_4-\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_4+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_4+\frac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(z_4-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(y_4+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(x_4+\frac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}\\
\mathbf{B_{48}} & = & -\left(z_4-\frac{3}{4}\right)\,\mathbf{a}_1-\left(y_4-\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_4-\frac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(z_4-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(y_4-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(x_4-\frac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)} & \text{O I}
\end{array}
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\begin{array}{lcccll}
\mathbf{B_{49}} & = & x_5\,\mathbf{a}_1 + y_5\,\mathbf{a}_2 + z_5\,\mathbf{a}_3 & = & a x_5\,\hat{\mathbf{x}} + a y_5\,\hat{\mathbf{y}} + a z_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{50}} & = & -\left(x_5 - \tfrac{1}{2}\right)\,\mathbf{a}_1 - y_5\,\mathbf{a}_2 + \left(z_5 + \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(x_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a y_5\,\hat{\mathbf{y}} + a\left(z_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{51}} & = & -x_5\,\mathbf{a}_1 + \left(y_5 + \tfrac{1}{2}\right)\,\mathbf{a}_2 - \left(z_5 - \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a x_5\,\hat{\mathbf{x}} + a\left(y_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(z_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{52}} & = & \left(x_5 + \tfrac{1}{2}\right)\,\mathbf{a}_1 - \left(y_5 - \tfrac{1}{2}\right)\,\mathbf{a}_2 - z_5\,\mathbf{a}_3 & = & a\left(x_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(y_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a z_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{53}} & = & z_5\,\mathbf{a}_1 + x_5\,\mathbf{a}_2 + y_5\,\mathbf{a}_3 & = & a z_5\,\hat{\mathbf{x}} + a x_5\,\hat{\mathbf{y}} + a y_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{54}} & = & \left(z_5 + \tfrac{1}{2}\right)\,\mathbf{a}_1 - \left(x_5 - \tfrac{1}{2}\right)\,\mathbf{a}_2 - y_5\,\mathbf{a}_3 & = & a\left(z_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(x_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a y_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{55}} & = & -\left(z_5 - \tfrac{1}{2}\right)\,\mathbf{a}_1 - x_5\,\mathbf{a}_2 + \left(y_5 + \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(z_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a x_5\,\hat{\mathbf{y}} + a\left(y_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{56}} & = & -z_5\,\mathbf{a}_1 + \left(x_5 + \tfrac{1}{2}\right)\,\mathbf{a}_2 - \left(y_5 - \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a z_5\,\hat{\mathbf{x}} + a\left(x_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(y_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{57}} & = & y_5\,\mathbf{a}_1 + z_5\,\mathbf{a}_2 + x_5\,\mathbf{a}_3 & = & a y_5\,\hat{\mathbf{x}} + a z_5\,\hat{\mathbf{y}} + a x_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{58}} & = & -y_5\,\mathbf{a}_1 + \left(z_5 + \tfrac{1}{2}\right)\,\mathbf{a}_2 - \left(x_5 - \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a y_5\,\hat{\mathbf{x}} + a\left(z_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(x_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{59}} & = & \left(y_5 + \tfrac{1}{2}\right)\,\mathbf{a}_1 - \left(z_5 - \tfrac{1}{2}\right)\,\mathbf{a}_2 - x_5\,\mathbf{a}_3 & = & a\left(y_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(z_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{y}} - a x_5\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{60}} & = & -\left(y_5 - \tfrac{1}{2}\right)\,\mathbf{a}_1 - z_5\,\mathbf{a}_2 + \left(x_5 + \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(y_5 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a z_5\,\hat{\mathbf{y}} + a\left(x_5 + \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{61}} & = & \left(y_5 + \tfrac{3}{4}\right)\,\mathbf{a}_1 + \left(x_5 + \tfrac{1}{4}\right)\,\mathbf{a}_2 - \left(z_5 - \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(y_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(x_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(z_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{62}} & = & -\left(y_5 - \tfrac{3}{4}\right)\,\mathbf{a}_1 - \left(x_5 - \tfrac{3}{4}\right)\,\mathbf{a}_2 - \left(z_5 - \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(y_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(x_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(z_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{63}} & = & \left(y_5 + \tfrac{1}{4}\right)\,\mathbf{a}_1 - \left(x_5 - \tfrac{1}{4}\right)\,\mathbf{a}_2 + \left(z_5 + \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(y_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(x_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(z_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{64}} & = & -\left(y_5 - \tfrac{1}{4}\right)\,\mathbf{a}_1 + \left(x_5 + \tfrac{3}{4}\right)\,\mathbf{a}_2 + \left(z_5 + \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(y_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(z_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{65}} & = & \left(x_5 + \tfrac{3}{4}\right)\,\mathbf{a}_1 + \left(z_5 + \tfrac{1}{4}\right)\,\mathbf{a}_2 - \left(y_5 - \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(x_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(z_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(y_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{66}} & = & -\left(x_5 - \tfrac{1}{4}\right)\,\mathbf{a}_1 + \left(z_5 + \tfrac{3}{4}\right)\,\mathbf{a}_2 + \left(y_5 + \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(x_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(z_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(y_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{67}} & = & -\left(x_5 - \tfrac{3}{4}\right)\,\mathbf{a}_1 - \left(z_5 - \tfrac{3}{4}\right)\,\mathbf{a}_2 - \left(y_5 - \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(x_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(z_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(y_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{68}} & = & \left(x_5 + \tfrac{1}{4}\right)\,\mathbf{a}_1 - \left(z_5 - \tfrac{1}{4}\right)\,\mathbf{a}_2 + \left(y_5 + \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(x_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(z_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(y_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{69}} & = & \left(z_5 + \tfrac{3}{4}\right)\,\mathbf{a}_1 + \left(y_5 + \tfrac{1}{4}\right)\,\mathbf{a}_2 - \left(x_5 - \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & a\left(z_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(y_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{70}} & = & \left(z_5 + \tfrac{1}{4}\right)\,\mathbf{a}_1 - \left(y_5 - \tfrac{1}{4}\right)\,\mathbf{a}_2 + \left(x_5 + \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & a\left(z_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{71}} & = & -\left(z_5 - \tfrac{1}{4}\right)\,\mathbf{a}_1 + \left(y_5 + \tfrac{3}{4}\right)\,\mathbf{a}_2 + \left(x_5 + \tfrac{1}{4}\right)\,\mathbf{a}_3 & = & -a\left(z_5 - \tfrac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_5 + \tfrac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(x_5 + \tfrac{1}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{72}} & = & -\left(z_5 - \tfrac{3}{4}\right)\,\mathbf{a}_1 - \left(y_5 - \tfrac{3}{4}\right)\,\mathbf{a}_2 - \left(x_5 - \tfrac{3}{4}\right)\,\mathbf{a}_3 & = & -a\left(z_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(y_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(x_5 - \tfrac{3}{4}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O II} \\
\mathbf{B_{73}} & = & x_6\,\mathbf{a}_1 + y_6\,\mathbf{a}_2 + z_6\,\mathbf{a}_3 & = & a x_6\,\hat{\mathbf{x}} + a y_6\,\hat{\mathbf{y}} + a z_6\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O III} \\
\mathbf{B_{74}} & = & -\left(x_6 - \tfrac{1}{2}\right)\,\mathbf{a}_1 - y_6\,\mathbf{a}_2 + \left(z_6 + \tfrac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(x_6 - \tfrac{1}{2}\right)\,\hat{\mathbf{x}} - a y_6\,\hat{\mathbf{y}} + a\left(z_6 + \tfrac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24e)}\quad \text{O III}
\end{array}
$$

$\mathbf{B_{75}}$	$=$	$-x_6\,\mathbf{a}_1+\left(y_6+\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_6-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ax_6\,\hat{\mathbf{x}}+a\left(y_6+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_6-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{76}}$	$=$	$\left(x_6+\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_6-\frac{1}{2}\right)\,\mathbf{a}_2-z_6\,\mathbf{a}_3$	$=$	$a\left(x_6+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_6-\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_6\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{77}}$	$=$	$z_6\,\mathbf{a}_1+x_6\,\mathbf{a}_2+y_6\,\mathbf{a}_3$	$=$	$az_6\,\hat{\mathbf{x}}+ax_6\,\hat{\mathbf{y}}+ay_6\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{78}}$	$=$	$\left(z_6+\frac{1}{2}\right)\,\mathbf{a}_1-\left(x_6-\frac{1}{2}\right)\,\mathbf{a}_2-y_6\,\mathbf{a}_3$	$=$	$a\left(z_6+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_6-\frac{1}{2}\right)\,\hat{\mathbf{y}}-ay_6\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{79}}$	$=$	$-\left(z_6-\frac{1}{2}\right)\,\mathbf{a}_1-x_6\,\mathbf{a}_2+\left(y_6+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_6-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_6\,\hat{\mathbf{y}}+a\left(y_6+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{80}}$	$=$	$-z_6\,\mathbf{a}_1+\left(x_6+\frac{1}{2}\right)\,\mathbf{a}_2-\left(y_6-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-az_6\,\hat{\mathbf{x}}+a\left(x_6+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_6-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{81}}$	$=$	$y_6\,\mathbf{a}_1+z_6\,\mathbf{a}_2+x_6\,\mathbf{a}_3$	$=$	$ay_6\,\hat{\mathbf{x}}+az_6\,\hat{\mathbf{y}}+ax_6\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{82}}$	$=$	$-y_6\,\mathbf{a}_1+\left(z_6+\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_6-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_6\,\hat{\mathbf{x}}+a\left(z_6+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_6-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{83}}$	$=$	$\left(y_6+\frac{1}{2}\right)\,\mathbf{a}_1-\left(z_6-\frac{1}{2}\right)\,\mathbf{a}_2-x_6\,\mathbf{a}_3$	$=$	$a\left(y_6+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_6-\frac{1}{2}\right)\,\hat{\mathbf{y}}-ax_6\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{84}}$	$=$	$-\left(y_6-\frac{1}{2}\right)\,\mathbf{a}_1-z_6\,\mathbf{a}_2+\left(x_6+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6-\frac{1}{2}\right)\,\hat{\mathbf{x}}-az_6\,\hat{\mathbf{y}}+a\left(x_6+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{85}}$	$=$	$\left(y_6+\frac{3}{4}\right)\,\mathbf{a}_1+\left(x_6+\frac{1}{4}\right)\,\mathbf{a}_2-\left(z_6-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_6+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(x_6+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(z_6-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{86}}$	$=$	$-\left(y_6-\frac{3}{4}\right)\,\mathbf{a}_1-\left(x_6-\frac{3}{4}\right)\,\mathbf{a}_2-\left(z_6-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(x_6-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(z_6-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{87}}$	$=$	$\left(y_6+\frac{1}{4}\right)\,\mathbf{a}_1-\left(x_6-\frac{1}{4}\right)\,\mathbf{a}_2+\left(z_6+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_6+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(x_6-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(z_6+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{88}}$	$=$	$-\left(y_6-\frac{1}{4}\right)\,\mathbf{a}_1+\left(x_6+\frac{3}{4}\right)\,\mathbf{a}_2+\left(z_6+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_6-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(x_6+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{89}}$	$=$	$\left(x_6+\frac{3}{4}\right)\,\mathbf{a}_1+\left(z_6+\frac{1}{4}\right)\,\mathbf{a}_2-\left(y_6-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_6+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(y_6-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{90}}$	$=$	$-\left(x_6-\frac{1}{4}\right)\,\mathbf{a}_1+\left(z_6+\frac{3}{4}\right)\,\mathbf{a}_2+\left(y_6+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_6-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(z_6+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(y_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{91}}$	$=$	$-\left(x_6-\frac{3}{4}\right)\,\mathbf{a}_1-\left(z_6-\frac{3}{4}\right)\,\mathbf{a}_2-\left(y_6-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_6-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(z_6-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(y_6-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{92}}$	$=$	$\left(x_6+\frac{1}{4}\right)\,\mathbf{a}_1-\left(z_6-\frac{1}{4}\right)\,\mathbf{a}_2+\left(y_6+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_6+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(z_6-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(y_6+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{93}}$	$=$	$\left(z_6+\frac{3}{4}\right)\,\mathbf{a}_1+\left(y_6+\frac{1}{4}\right)\,\mathbf{a}_2-\left(x_6-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_6+\frac{3}{4}\right)\,\hat{\mathbf{x}}+a\left(y_6+\frac{1}{4}\right)\,\hat{\mathbf{y}}-a\left(x_6-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{94}}$	$=$	$\left(z_6+\frac{1}{4}\right)\,\mathbf{a}_1-\left(y_6-\frac{1}{4}\right)\,\mathbf{a}_2+\left(x_6+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_6+\frac{1}{4}\right)\,\hat{\mathbf{x}}-a\left(y_6-\frac{1}{4}\right)\,\hat{\mathbf{y}}+a\left(x_6+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{95}}$	$=$	$-\left(z_6-\frac{1}{4}\right)\,\mathbf{a}_1+\left(y_6+\frac{3}{4}\right)\,\mathbf{a}_2+\left(x_6+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_6-\frac{1}{4}\right)\,\hat{\mathbf{x}}+a\left(y_6+\frac{3}{4}\right)\,\hat{\mathbf{y}}+a\left(x_6+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{96}}$	$=$	$-\left(z_6-\frac{3}{4}\right)\,\mathbf{a}_1-\left(y_6-\frac{3}{4}\right)\,\mathbf{a}_2-\left(x_6-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_6-\frac{3}{4}\right)\,\hat{\mathbf{x}}-a\left(y_6-\frac{3}{4}\right)\,\hat{\mathbf{y}}-a\left(x_6-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	O III
$\mathbf{B_{97}}$	$=$	$x_7\,\mathbf{a}_1+y_7\,\mathbf{a}_2+z_7\,\mathbf{a}_3$	$=$	$ax_7\,\hat{\mathbf{x}}+ay_7\,\hat{\mathbf{y}}+az_7\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{98}}$	$=$	$-\left(x_7-\frac{1}{2}\right)\,\mathbf{a}_1-y_7\,\mathbf{a}_2+\left(z_7+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_7-\frac{1}{2}\right)\,\hat{\mathbf{x}}-ay_7\,\hat{\mathbf{y}}+a\left(z_7+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{99}}$	$=$	$-x_7\,\mathbf{a}_1+\left(y_7+\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_7-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ax_7\,\hat{\mathbf{x}}+a\left(y_7+\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_7-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{100}}$	$=$	$\left(x_7+\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_7-\frac{1}{2}\right)\,\mathbf{a}_2-z_7\,\mathbf{a}_3$	$=$	$a\left(x_7+\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_7-\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_7\,\hat{\mathbf{z}}$	(24e)	Te I

$\mathbf{B_{101}} =$	$z_7\,\mathbf{a}_1 + x_7\,\mathbf{a}_2 + y_7\,\mathbf{a}_3$	$=$	$az_7\,\hat{\mathbf{x}} + ax_7\,\hat{\mathbf{y}} + ay_7\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{102}} =$	$\left(z_7+\frac{1}{2}\right)\,\mathbf{a}_1 - \left(x_7-\frac{1}{2}\right)\,\mathbf{a}_2 - y_7\,\mathbf{a}_3$	$=$	$a\left(z_7+\frac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(x_7-\frac{1}{2}\right)\,\hat{\mathbf{y}} - ay_7\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{103}} =$	$-\left(z_7-\frac{1}{2}\right)\,\mathbf{a}_1 - x_7\,\mathbf{a}_2 + \left(y_7+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_7-\frac{1}{2}\right)\,\hat{\mathbf{x}} - ax_7\,\hat{\mathbf{y}} + a\left(y_7+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{104}} =$	$-z_7\,\mathbf{a}_1 + \left(x_7+\frac{1}{2}\right)\,\mathbf{a}_2 - \left(y_7-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-az_7\,\hat{\mathbf{x}} + a\left(x_7+\frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(y_7-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{105}} =$	$y_7\,\mathbf{a}_1 + z_7\,\mathbf{a}_2 + x_7\,\mathbf{a}_3$	$=$	$ay_7\,\hat{\mathbf{x}} + az_7\,\hat{\mathbf{y}} + ax_7\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{106}} =$	$-y_7\,\mathbf{a}_1 + \left(z_7+\frac{1}{2}\right)\,\mathbf{a}_2 - \left(x_7-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_7\,\hat{\mathbf{x}} + a\left(z_7+\frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(x_7-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{107}} =$	$\left(y_7+\frac{1}{2}\right)\,\mathbf{a}_1 - \left(z_7-\frac{1}{2}\right)\,\mathbf{a}_2 - x_7\,\mathbf{a}_3$	$=$	$a\left(y_7+\frac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(z_7-\frac{1}{2}\right)\,\hat{\mathbf{y}} - ax_7\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{108}} =$	$-\left(y_7-\frac{1}{2}\right)\,\mathbf{a}_1 - z_7\,\mathbf{a}_2 + \left(x_7+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_7-\frac{1}{2}\right)\,\hat{\mathbf{x}} - az_7\,\hat{\mathbf{y}} + a\left(x_7+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{109}} =$	$\left(y_7+\frac{3}{4}\right)\,\mathbf{a}_1 + \left(x_7+\frac{1}{4}\right)\,\mathbf{a}_2 - \left(z_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_7+\frac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{110}} =$	$-\left(y_7-\frac{3}{4}\right)\,\mathbf{a}_1 - \left(x_7-\frac{3}{4}\right)\,\mathbf{a}_2 - \left(z_7-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_7-\frac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(x_7-\frac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(z_7-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{111}} =$	$\left(y_7+\frac{1}{4}\right)\,\mathbf{a}_1 - \left(x_7-\frac{1}{4}\right)\,\mathbf{a}_2 + \left(z_7+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(z_7+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{112}} =$	$-\left(y_7-\frac{1}{4}\right)\,\mathbf{a}_1 + \left(x_7+\frac{3}{4}\right)\,\mathbf{a}_2 + \left(z_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(x_7+\frac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{113}} =$	$\left(x_7+\frac{3}{4}\right)\,\mathbf{a}_1 + \left(z_7+\frac{1}{4}\right)\,\mathbf{a}_2 - \left(y_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_7+\frac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{114}} =$	$-\left(x_7-\frac{1}{4}\right)\,\mathbf{a}_1 + \left(z_7+\frac{3}{4}\right)\,\mathbf{a}_2 + \left(y_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(z_7+\frac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{115}} =$	$-\left(x_7-\frac{3}{4}\right)\,\mathbf{a}_1 - \left(z_7-\frac{3}{4}\right)\,\mathbf{a}_2 - \left(y_7-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_7-\frac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(z_7-\frac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(y_7-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{116}} =$	$\left(x_7+\frac{1}{4}\right)\,\mathbf{a}_1 - \left(z_7-\frac{1}{4}\right)\,\mathbf{a}_2 + \left(y_7+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(y_7+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{117}} =$	$\left(z_7+\frac{3}{4}\right)\,\mathbf{a}_1 + \left(y_7+\frac{1}{4}\right)\,\mathbf{a}_2 - \left(x_7-\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_7+\frac{3}{4}\right)\,\hat{\mathbf{x}} + a\left(y_7+\frac{1}{4}\right)\,\hat{\mathbf{y}} - a\left(x_7-\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{118}} =$	$\left(z_7+\frac{1}{4}\right)\,\mathbf{a}_1 - \left(y_7-\frac{1}{4}\right)\,\mathbf{a}_2 + \left(x_7+\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$a\left(z_7+\frac{1}{4}\right)\,\hat{\mathbf{x}} - a\left(y_7-\frac{1}{4}\right)\,\hat{\mathbf{y}} + a\left(x_7+\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{119}} =$	$-\left(z_7-\frac{1}{4}\right)\,\mathbf{a}_1 + \left(y_7+\frac{3}{4}\right)\,\mathbf{a}_2 + \left(x_7+\frac{1}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_7-\frac{1}{4}\right)\,\hat{\mathbf{x}} + a\left(y_7+\frac{3}{4}\right)\,\hat{\mathbf{y}} + a\left(x_7+\frac{1}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I
$\mathbf{B_{120}} =$	$-\left(z_7-\frac{3}{4}\right)\,\mathbf{a}_1 - \left(y_7-\frac{3}{4}\right)\,\mathbf{a}_2 - \left(x_7-\frac{3}{4}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_7-\frac{3}{4}\right)\,\hat{\mathbf{x}} - a\left(y_7-\frac{3}{4}\right)\,\hat{\mathbf{y}} - a\left(x_7-\frac{3}{4}\right)\,\hat{\mathbf{z}}$	(24e)	Te I

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