Ce_6Cd_{37} Structure: A41B6_cP188_201_b2efg5h_h-001

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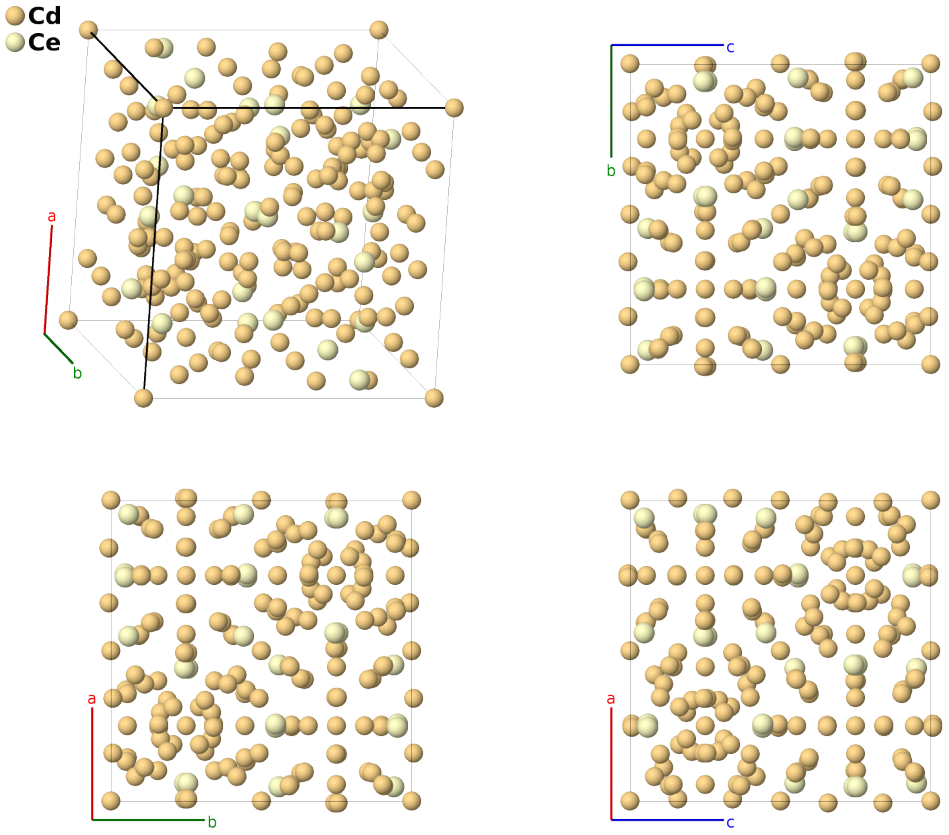
https://aflow.org/p/D917

https://aflow.org/p/A41B6_cP188_201_b2efg5h_h-001



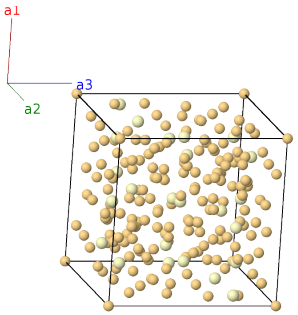
Prototype	$Cd_{37}Ce_6$
AFLOW prototype label	A41B6_cP188_201_b2efg5h_h-001
ICSD	54599
Pearson symbol	cP188
Space group number	201
Space group symbol	$Pn\overline{3}$
AFLOW prototype command	`aflow --proto=A41B6_cP188_201_b2efg5h_h-001 --params=`$a, x_2, x_3, x_4, x_5, x_6, y_6, z_6, x_7, y_7, z_7, x_8, y_8, z_8, x_9, y_9, z_9, x_{10}, y_{10}, z_{10}, x_{11}, y_{11}, z_{11}$

- The compound now known as Ce_6Cd_{37} was originally thought to have the YCd_6 structure, but (Armbrüster, 2000) found that it actually has the structure shown here.

- All of the sites are fully occupied except the one labeled Cd-X, where 2/3 of the sites are vacant, giving the correct stoichiometry. We use the data taken at 298K.
- (Armbrüster, 2000) give the structure of Ce_6Cd_{37} in setting 1 of space group $Pn\overline{3}$ #201. We used FINDSYM to change this to the standard setting 2.
- (Armbrüster, 2000) also present a slightly different version of the YCd_6 structure than that presented in the prototype paper, (Larson, 1972).
- We used FINDSYM to transform this to the standard second setting, which places a cerium atom and the inversion site at the origin.

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
$\mathbf{B_1}$	=	0	=	0	(4b)	Cd I
$\mathbf{B_2}$	=	$\frac{1}{2}\,\mathbf{a}_1 + \frac{1}{2}\,\mathbf{a}_2$	=	$\frac{1}{2}a\,\hat{\mathbf{x}} + \frac{1}{2}a\,\hat{\mathbf{y}}$	(4b)	Cd I
$\mathbf{B_3}$	=	$\frac{1}{2}\,\mathbf{a}_1 + \frac{1}{2}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,\hat{\mathbf{x}} + \frac{1}{2}a\,\hat{\mathbf{z}}$	(4b)	Cd I
$\mathbf{B_4}$	=	$\frac{1}{2}\,\mathbf{a}_2 + \frac{1}{2}\,\mathbf{a}_3$	=	$\frac{1}{2}a\,\hat{\mathbf{y}} + \frac{1}{2}a\,\hat{\mathbf{z}}$	(4b)	Cd I
$\mathbf{B_5}$	=	$x_2\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{x}} + ax_2\,\hat{\mathbf{y}} + ax_2\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_6}$	=	$-\left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_1 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_2 + x_2\,\mathbf{a}_3$	=	$-a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{y}} + ax_2\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_7}$	=	$-\left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_1 + x_2\,\mathbf{a}_2 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{x}} + ax_2\,\hat{\mathbf{y}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_8}$	=	$x_2\,\mathbf{a}_1 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_2 - \left(x_2 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$ax_2\,\hat{\mathbf{x}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(x_2 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_9}$	=	$-x_2\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{x}} - ax_2\,\hat{\mathbf{y}} - ax_2\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_{10}}$	=	$\left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_1 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_2 - x_2\,\mathbf{a}_3$	=	$a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{x}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{y}} - ax_2\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_{11}}$	=	$\left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_1 - x_2\,\mathbf{a}_2 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{x}} - ax_2\,\hat{\mathbf{y}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_{12}}$	=	$-x_2\,\mathbf{a}_1 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_2 + \left(x_2 + \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-ax_2\,\hat{\mathbf{x}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{y}} + a\left(x_2 + \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd II
$\mathbf{B_{13}}$	=	$x_3\,\mathbf{a}_1 + x_3\,\mathbf{a}_2 + x_3\,\mathbf{a}_3$	=	$ax_3\,\hat{\mathbf{x}} + ax_3\,\hat{\mathbf{y}} + ax_3\,\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{14}}$	=	$-\left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_1 - \left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_2 + x_3\,\mathbf{a}_3$	=	$-a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{x}} - a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{y}} + ax_3\,\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{15}}$	=	$-\left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_1 + x_3\,\mathbf{a}_2 - \left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$-a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{x}} + ax_3\,\hat{\mathbf{y}} - a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{16}}$	=	$x_3\,\mathbf{a}_1 - \left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_2 - \left(x_3 - \frac{1}{2}\right)\,\mathbf{a}_3$	=	$ax_3\,\hat{\mathbf{x}} - a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{y}} - a\left(x_3 - \frac{1}{2}\right)\,\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{17}}$	=	$-x_3\,\mathbf{a}_1 - x_3\,\mathbf{a}_2 - x_3\,\mathbf{a}_3$	=	$-ax_3\,\hat{\mathbf{x}} - ax_3\,\hat{\mathbf{y}} - ax_3\,\hat{\mathbf{z}}$	(8e)	Cd III

$\mathbf{B_{18}}$	=	$\left(x_3+\frac{1}{2}\right)\mathbf{a}_1+\left(x_3+\frac{1}{2}\right)\mathbf{a}_2-x_3\,\mathbf{a}_3$	=	$a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{x}}+a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{y}}-ax_3\,\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{19}}$	=	$\left(x_3+\frac{1}{2}\right)\mathbf{a}_1-x_3\,\mathbf{a}_2+\left(x_3+\frac{1}{2}\right)\mathbf{a}_3$	=	$a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{x}}-ax_3\,\hat{\mathbf{y}}+a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{20}}$	=	$-x_3\,\mathbf{a}_1+\left(x_3+\frac{1}{2}\right)\mathbf{a}_2+\left(x_3+\frac{1}{2}\right)\mathbf{a}_3$	=	$-ax_3\,\hat{\mathbf{x}}+a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{y}}+a\left(x_3+\frac{1}{2}\right)\hat{\mathbf{z}}$	(8e)	Cd III
$\mathbf{B_{21}}$	=	$x_4\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$ax_4\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{22}}$	=	$-\left(x_4-\frac{1}{2}\right)\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$-a\left(x_4-\frac{1}{2}\right)\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{23}}$	=	$\frac{1}{4}\,\mathbf{a}_1+x_4\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+ax_4\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{24}}$	=	$\frac{1}{4}\,\mathbf{a}_1-\left(x_4-\frac{1}{2}\right)\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}-a\left(x_4-\frac{1}{2}\right)\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{25}}$	=	$\frac{1}{4}\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+x_4\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+ax_4\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{26}}$	=	$\frac{1}{4}\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2-\left(x_4-\frac{1}{2}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}-a\left(x_4-\frac{1}{2}\right)\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{27}}$	=	$-x_4\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$-ax_4\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{28}}$	=	$\left(x_4+\frac{1}{2}\right)\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$a\left(x_4+\frac{1}{2}\right)\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{29}}$	=	$\frac{3}{4}\,\mathbf{a}_1-x_4\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}-ax_4\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{30}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\left(x_4+\frac{1}{2}\right)\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+a\left(x_4+\frac{1}{2}\right)\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{31}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2-x_4\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}-ax_4\,\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{32}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\left(x_4+\frac{1}{2}\right)\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+a\left(x_4+\frac{1}{2}\right)\hat{\mathbf{z}}$	(12f)	Cd IV
$\mathbf{B_{33}}$	=	$x_5\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$ax_5\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{34}}$	=	$-\left(x_5-\frac{1}{2}\right)\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$-a\left(x_5-\frac{1}{2}\right)\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{35}}$	=	$\frac{1}{4}\,\mathbf{a}_1+x_5\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+ax_5\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{36}}$	=	$\frac{1}{4}\,\mathbf{a}_1-\left(x_5-\frac{1}{2}\right)\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}-a\left(x_5-\frac{1}{2}\right)\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{37}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+x_5\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+ax_5\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{38}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2-\left(x_5-\frac{1}{2}\right)\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}-a\left(x_5-\frac{1}{2}\right)\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{39}}$	=	$-x_5\,\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$-ax_5\,\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{40}}$	=	$\left(x_5+\frac{1}{2}\right)\mathbf{a}_1+\frac{1}{4}\,\mathbf{a}_2+\frac{3}{4}\,\mathbf{a}_3$	=	$a\left(x_5+\frac{1}{2}\right)\hat{\mathbf{x}}+\frac{1}{4}a\,\hat{\mathbf{y}}+\frac{3}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{41}}$	=	$\frac{3}{4}\,\mathbf{a}_1-x_5\,\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}-ax_5\,\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{42}}$	=	$\frac{3}{4}\,\mathbf{a}_1+\left(x_5+\frac{1}{2}\right)\mathbf{a}_2+\frac{1}{4}\,\mathbf{a}_3$	=	$\frac{3}{4}a\,\hat{\mathbf{x}}+a\left(x_5+\frac{1}{2}\right)\hat{\mathbf{y}}+\frac{1}{4}a\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{43}}$	=	$\frac{1}{4}\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2-x_5\,\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}-ax_5\,\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{44}}$	=	$\frac{1}{4}\,\mathbf{a}_1+\frac{3}{4}\,\mathbf{a}_2+\left(x_5+\frac{1}{2}\right)\mathbf{a}_3$	=	$\frac{1}{4}a\,\hat{\mathbf{x}}+\frac{3}{4}a\,\hat{\mathbf{y}}+a\left(x_5+\frac{1}{2}\right)\hat{\mathbf{z}}$	(12g)	Cd V
$\mathbf{B_{45}}$	=	$x_6\,\mathbf{a}_1+y_6\,\mathbf{a}_2+z_6\,\mathbf{a}_3$	=	$ax_6\,\hat{\mathbf{x}}+ay_6\,\hat{\mathbf{y}}+az_6\,\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{46}}$	=	$-\left(x_6-\frac{1}{2}\right)\mathbf{a}_1-\left(y_6-\frac{1}{2}\right)\mathbf{a}_2+z_6\,\mathbf{a}_3$	=	$-a\left(x_6-\frac{1}{2}\right)\hat{\mathbf{x}}-a\left(y_6-\frac{1}{2}\right)\hat{\mathbf{y}}+az_6\,\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{47}}$	=	$-\left(x_6-\frac{1}{2}\right)\mathbf{a}_1+y_6\,\mathbf{a}_2-\left(z_6-\frac{1}{2}\right)\mathbf{a}_3$	=	$-a\left(x_6-\frac{1}{2}\right)\hat{\mathbf{x}}+ay_6\,\hat{\mathbf{y}}-a\left(z_6-\frac{1}{2}\right)\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{48}}$	=	$x_6\,\mathbf{a}_1-\left(y_6-\frac{1}{2}\right)\mathbf{a}_2-\left(z_6-\frac{1}{2}\right)\mathbf{a}_3$	=	$ax_6\,\hat{\mathbf{x}}-a\left(y_6-\frac{1}{2}\right)\hat{\mathbf{y}}-a\left(z_6-\frac{1}{2}\right)\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{49}}$	=	$z_6\,\mathbf{a}_1+x_6\,\mathbf{a}_2+y_6\,\mathbf{a}_3$	=	$az_6\,\hat{\mathbf{x}}+ax_6\,\hat{\mathbf{y}}+ay_6\,\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{50}}$	=	$z_6\,\mathbf{a}_1-\left(x_6-\frac{1}{2}\right)\mathbf{a}_2-\left(y_6-\frac{1}{2}\right)\mathbf{a}_3$	=	$az_6\,\hat{\mathbf{x}}-a\left(x_6-\frac{1}{2}\right)\hat{\mathbf{y}}-a\left(y_6-\frac{1}{2}\right)\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{51}}$	=	$-\left(z_6-\frac{1}{2}\right)\mathbf{a}_1-\left(x_6-\frac{1}{2}\right)\mathbf{a}_2+y_6\,\mathbf{a}_3$	=	$-a\left(z_6-\frac{1}{2}\right)\hat{\mathbf{x}}-a\left(x_6-\frac{1}{2}\right)\hat{\mathbf{y}}+ay_6\,\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{52}}$	=	$-\left(z_6-\frac{1}{2}\right)\mathbf{a}_1+x_6\,\mathbf{a}_2-\left(y_6-\frac{1}{2}\right)\mathbf{a}_3$	=	$-a\left(z_6-\frac{1}{2}\right)\hat{\mathbf{x}}+ax_6\,\hat{\mathbf{y}}-a\left(y_6-\frac{1}{2}\right)\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{53}}$	=	$y_6\,\mathbf{a}_1+z_6\,\mathbf{a}_2+x_6\,\mathbf{a}_3$	=	$ay_6\,\hat{\mathbf{x}}+az_6\,\hat{\mathbf{y}}+ax_6\,\hat{\mathbf{z}}$	(24h)	Cd VI
$\mathbf{B_{54}}$	=	$-\left(y_6-\frac{1}{2}\right)\mathbf{a}_1+z_6\,\mathbf{a}_2-\left(x_6-\frac{1}{2}\right)\mathbf{a}_3$	=	$-a\left(y_6-\frac{1}{2}\right)\hat{\mathbf{x}}+az_6\,\hat{\mathbf{y}}-a\left(x_6-\frac{1}{2}\right)\hat{\mathbf{z}}$	(24h)	Cd VI

$$\mathbf{B_{55}} = y_6\,\mathbf{a}_1-\left(z_6-\tfrac{1}{2}\right)\,\mathbf{a}_2-\left(x_6-\tfrac{1}{2}\right)\,\mathbf{a}_3 = ay_6\,\hat{\mathbf{x}}-a\left(z_6-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_6-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{56}} = -\left(y_6-\tfrac{1}{2}\right)\,\mathbf{a}_1-\left(z_6-\tfrac{1}{2}\right)\,\mathbf{a}_2+x_6\,\mathbf{a}_3 = -a\left(y_6-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_6-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+ax_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{57}} = -x_6\,\mathbf{a}_1-y_6\,\mathbf{a}_2-z_6\,\mathbf{a}_3 = -ax_6\,\hat{\mathbf{x}}-ay_6\,\hat{\mathbf{y}}-az_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{58}} = \left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_1+\left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_2-z_6\,\mathbf{a}_3 = a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-az_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{59}} = \left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_1-y_6\,\mathbf{a}_2+\left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-ay_6\,\hat{\mathbf{y}}+a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{60}} = -x_6\,\mathbf{a}_1+\left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_2+\left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = -ax_6\,\hat{\mathbf{x}}+a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{61}} = -z_6\,\mathbf{a}_1-x_6\,\mathbf{a}_2-y_6\,\mathbf{a}_3 = -az_6\,\hat{\mathbf{x}}-ax_6\,\hat{\mathbf{y}}-ay_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{62}} = -z_6\,\mathbf{a}_1+\left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_2+\left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = -az_6\,\hat{\mathbf{x}}+a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{63}} = \left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_1+\left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_2-y_6\,\mathbf{a}_3 = a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-ay_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{64}} = \left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_1-x_6\,\mathbf{a}_2+\left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-ax_6\,\hat{\mathbf{y}}+a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{65}} = -y_6\,\mathbf{a}_1-z_6\,\mathbf{a}_2-x_6\,\mathbf{a}_3 = -ay_6\,\hat{\mathbf{x}}-az_6\,\hat{\mathbf{y}}-ax_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{66}} = \left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_1-z_6\,\mathbf{a}_2+\left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-az_6\,\hat{\mathbf{y}}+a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{67}} = -y_6\,\mathbf{a}_1+\left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_2+\left(x_6+\tfrac{1}{2}\right)\,\mathbf{a}_3 = -ay_6\,\hat{\mathbf{x}}+a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(x_6+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{68}} = \left(y_6+\tfrac{1}{2}\right)\,\mathbf{a}_1+\left(z_6+\tfrac{1}{2}\right)\,\mathbf{a}_2-x_6\,\mathbf{a}_3 = a\left(y_6+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(z_6+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-ax_6\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VI}$$

$$\mathbf{B_{69}} = x_7\,\mathbf{a}_1+y_7\,\mathbf{a}_2+z_7\,\mathbf{a}_3 = ax_7\,\hat{\mathbf{x}}+ay_7\,\hat{\mathbf{y}}+az_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{70}} = -\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_1-\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_2+z_7\,\mathbf{a}_3 = -a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+az_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{71}} = -\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_1+y_7\,\mathbf{a}_2-\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = -a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+ay_7\,\hat{\mathbf{y}}-a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{72}} = x_7\,\mathbf{a}_1-\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_2-\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = ax_7\,\hat{\mathbf{x}}-a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{73}} = z_7\,\mathbf{a}_1+x_7\,\mathbf{a}_2+y_7\,\mathbf{a}_3 = az_7\,\hat{\mathbf{x}}+ax_7\,\hat{\mathbf{y}}+ay_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{74}} = z_7\,\mathbf{a}_1-\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_2-\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = az_7\,\hat{\mathbf{x}}-a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{75}} = -\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_1-\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_2+y_7\,\mathbf{a}_3 = -a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+ay_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{76}} = -\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_1+x_7\,\mathbf{a}_2-\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = -a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+ax_7\,\hat{\mathbf{y}}-a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{77}} = y_7\,\mathbf{a}_1+z_7\,\mathbf{a}_2+x_7\,\mathbf{a}_3 = ay_7\,\hat{\mathbf{x}}+az_7\,\hat{\mathbf{y}}+ax_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{78}} = -\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_1+z_7\,\mathbf{a}_2-\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = -a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+az_7\,\hat{\mathbf{y}}-a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{79}} = y_7\,\mathbf{a}_1-\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_2-\left(x_7-\tfrac{1}{2}\right)\,\mathbf{a}_3 = ay_7\,\hat{\mathbf{x}}-a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_7-\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{80}} = -\left(y_7-\tfrac{1}{2}\right)\,\mathbf{a}_1-\left(z_7-\tfrac{1}{2}\right)\,\mathbf{a}_2+x_7\,\mathbf{a}_3 = -a\left(y_7-\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_7-\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+ax_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{81}} = -x_7\,\mathbf{a}_1-y_7\,\mathbf{a}_2-z_7\,\mathbf{a}_3 = -ax_7\,\hat{\mathbf{x}}-ay_7\,\hat{\mathbf{y}}-az_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{82}} = \left(x_7+\tfrac{1}{2}\right)\,\mathbf{a}_1+\left(y_7+\tfrac{1}{2}\right)\,\mathbf{a}_2-z_7\,\mathbf{a}_3 = a\left(x_7+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(y_7+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}-az_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{83}} = \left(x_7+\tfrac{1}{2}\right)\,\mathbf{a}_1-y_7\,\mathbf{a}_2+\left(z_7+\tfrac{1}{2}\right)\,\mathbf{a}_3 = a\left(x_7+\tfrac{1}{2}\right)\,\hat{\mathbf{x}}-ay_7\,\hat{\mathbf{y}}+a\left(z_7+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{84}} = -x_7\,\mathbf{a}_1+\left(y_7+\tfrac{1}{2}\right)\,\mathbf{a}_2+\left(z_7+\tfrac{1}{2}\right)\,\mathbf{a}_3 = -ax_7\,\hat{\mathbf{x}}+a\left(y_7+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(z_7+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{85}} = -z_7\,\mathbf{a}_1-x_7\,\mathbf{a}_2-y_7\,\mathbf{a}_3 = -az_7\,\hat{\mathbf{x}}-ax_7\,\hat{\mathbf{y}}-ay_7\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$\mathbf{B_{86}} = -z_7\,\mathbf{a}_1+\left(x_7+\tfrac{1}{2}\right)\,\mathbf{a}_2+\left(y_7+\tfrac{1}{2}\right)\,\mathbf{a}_3 = -az_7\,\hat{\mathbf{x}}+a\left(x_7+\tfrac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(y_7+\tfrac{1}{2}\right)\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd VII}$$

$$
\begin{array}{lcccccc}
\mathbf{B_{87}} & = & \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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{88}} & = & \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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{89}} & = & -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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{90}} & = & \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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{91}} & = & -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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{92}} & = & \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}} & \text{(24h)} & \text{Cd VII} \\
\mathbf{B_{93}} & = & x_8\,\mathbf{a}_1+y_8\,\mathbf{a}_2+z_8\,\mathbf{a}_3 & = & ax_8\,\hat{\mathbf{x}}+ay_8\,\hat{\mathbf{y}}+az_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{94}} & = & -\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_2+z_8\,\mathbf{a}_3 & = & -a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}+az_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{95}} & = & -\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_1+y_8\,\mathbf{a}_2-\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ay_8\,\hat{\mathbf{y}}-a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{96}} & = & x_8\,\mathbf{a}_1-\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & ax_8\,\hat{\mathbf{x}}-a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{97}} & = & z_8\,\mathbf{a}_1+x_8\,\mathbf{a}_2+y_8\,\mathbf{a}_3 & = & az_8\,\hat{\mathbf{x}}+ax_8\,\hat{\mathbf{y}}+ay_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{98}} & = & z_8\,\mathbf{a}_1-\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_2-\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & az_8\,\hat{\mathbf{x}}-a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{99}} & = & -\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_1-\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_2+y_8\,\mathbf{a}_3 & = & -a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ay_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{100}} & = & -\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_1+x_8\,\mathbf{a}_2-\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_8\,\hat{\mathbf{y}}-a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{101}} & = & y_8\,\mathbf{a}_1+z_8\,\mathbf{a}_2+x_8\,\mathbf{a}_3 & = & ay_8\,\hat{\mathbf{x}}+az_8\,\hat{\mathbf{y}}+ax_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{102}} & = & -\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_1+z_8\,\mathbf{a}_2-\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & -a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}+az_8\,\hat{\mathbf{y}}-a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{103}} & = & y_8\,\mathbf{a}_1-\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_8-\frac{1}{2}\right)\,\mathbf{a}_3 & = & ay_8\,\hat{\mathbf{x}}-a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_8-\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{104}} & = & -\left(y_8-\frac{1}{2}\right)\,\mathbf{a}_1-\left(z_8-\frac{1}{2}\right)\,\mathbf{a}_2+x_8\,\mathbf{a}_3 & = & -a\left(y_8-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_8-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ax_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{105}} & = & -x_8\,\mathbf{a}_1-y_8\,\mathbf{a}_2-z_8\,\mathbf{a}_3 & = & -ax_8\,\hat{\mathbf{x}}-ay_8\,\hat{\mathbf{y}}-az_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{106}} & = & \left(x_8+\frac{1}{2}\right)\,\mathbf{a}_1+\left(y_8+\frac{1}{2}\right)\,\mathbf{a}_2-z_8\,\mathbf{a}_3 & = & a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{107}} & = & \left(x_8+\frac{1}{2}\right)\,\mathbf{a}_1-y_8\,\mathbf{a}_2+\left(z_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ay_8\,\hat{\mathbf{y}}+a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{108}} & = & -x_8\,\mathbf{a}_1+\left(y_8+\frac{1}{2}\right)\,\mathbf{a}_2+\left(z_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -ax_8\,\hat{\mathbf{x}}+a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{109}} & = & -z_8\,\mathbf{a}_1-x_8\,\mathbf{a}_2-y_8\,\mathbf{a}_3 & = & -az_8\,\hat{\mathbf{x}}-ax_8\,\hat{\mathbf{y}}-ay_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{110}} & = & -z_8\,\mathbf{a}_1+\left(x_8+\frac{1}{2}\right)\,\mathbf{a}_2+\left(y_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -az_8\,\hat{\mathbf{x}}+a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{111}} & = & \left(z_8+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_8+\frac{1}{2}\right)\,\mathbf{a}_2-y_8\,\mathbf{a}_3 & = & a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ay_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{112}} & = & \left(z_8+\frac{1}{2}\right)\,\mathbf{a}_1-x_8\,\mathbf{a}_2+\left(y_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_8\,\hat{\mathbf{y}}+a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{113}} & = & -y_8\,\mathbf{a}_1-z_8\,\mathbf{a}_2-x_8\,\mathbf{a}_3 & = & -ay_8\,\hat{\mathbf{x}}-az_8\,\hat{\mathbf{y}}-ax_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{114}} & = & \left(y_8+\frac{1}{2}\right)\,\mathbf{a}_1-z_8\,\mathbf{a}_2+\left(x_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}-az_8\,\hat{\mathbf{y}}+a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{115}} & = & -y_8\,\mathbf{a}_1+\left(z_8+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_8+\frac{1}{2}\right)\,\mathbf{a}_3 & = & -ay_8\,\hat{\mathbf{x}}+a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(x_8+\frac{1}{2}\right)\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{116}} & = & \left(y_8+\frac{1}{2}\right)\,\mathbf{a}_1+\left(z_8+\frac{1}{2}\right)\,\mathbf{a}_2-x_8\,\mathbf{a}_3 & = & a\left(y_8+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(z_8+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ax_8\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd VIII} \\
\mathbf{B_{117}} & = & x_9\,\mathbf{a}_1+y_9\,\mathbf{a}_2+z_9\,\mathbf{a}_3 & = & ax_9\,\hat{\mathbf{x}}+ay_9\,\hat{\mathbf{y}}+az_9\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd IX} \\
\mathbf{B_{118}} & = & -\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_2+z_9\,\mathbf{a}_3 & = & -a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}+az_9\,\hat{\mathbf{z}} & \text{(24h)} & \text{Cd IX}
\end{array}
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$\mathbf{B_{119}} =$	$-\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_1+y_9\,\mathbf{a}_2-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ay_9\,\hat{\mathbf{y}}-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{120}} =$	$x_9\,\mathbf{a}_1-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ax_9\,\hat{\mathbf{x}}-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{121}} =$	$z_9\,\mathbf{a}_1+x_9\,\mathbf{a}_2+y_9\,\mathbf{a}_3$	$=$	$az_9\,\hat{\mathbf{x}}+ax_9\,\hat{\mathbf{y}}+ay_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{122}} =$	$z_9\,\mathbf{a}_1-\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_2-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$az_9\,\hat{\mathbf{x}}-a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{123}} =$	$-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_1-\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_2+y_9\,\mathbf{a}_3$	$=$	$-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ay_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{124}} =$	$-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_1+x_9\,\mathbf{a}_2-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_9\,\hat{\mathbf{y}}-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{125}} =$	$y_9\,\mathbf{a}_1+z_9\,\mathbf{a}_2+x_9\,\mathbf{a}_3$	$=$	$ay_9\,\hat{\mathbf{x}}+az_9\,\hat{\mathbf{y}}+ax_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{126}} =$	$-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_1+z_9\,\mathbf{a}_2-\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}+az_9\,\hat{\mathbf{y}}-a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{127}} =$	$y_9\,\mathbf{a}_1-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_2-\left(x_9-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ay_9\,\hat{\mathbf{x}}-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(x_9-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{128}} =$	$-\left(y_9-\frac{1}{2}\right)\,\mathbf{a}_1-\left(z_9-\frac{1}{2}\right)\,\mathbf{a}_2+x_9\,\mathbf{a}_3$	$=$	$-a\left(y_9-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_9-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ax_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{129}} =$	$-x_9\,\mathbf{a}_1-y_9\,\mathbf{a}_2-z_9\,\mathbf{a}_3$	$=$	$-ax_9\,\hat{\mathbf{x}}-ay_9\,\hat{\mathbf{y}}-az_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{130}} =$	$\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_1+\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_2-z_9\,\mathbf{a}_3$	$=$	$a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{131}} =$	$\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_1-y_9\,\mathbf{a}_2+\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ay_9\,\hat{\mathbf{y}}+a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{132}} =$	$-x_9\,\mathbf{a}_1+\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_2+\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ax_9\,\hat{\mathbf{x}}+a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{133}} =$	$-z_9\,\mathbf{a}_1-x_9\,\mathbf{a}_2-y_9\,\mathbf{a}_3$	$=$	$-az_9\,\hat{\mathbf{x}}-ax_9\,\hat{\mathbf{y}}-ay_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{134}} =$	$-z_9\,\mathbf{a}_1+\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_2+\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-az_9\,\hat{\mathbf{x}}+a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{135}} =$	$\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_2-y_9\,\mathbf{a}_3$	$=$	$a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ay_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{136}} =$	$\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_1-x_9\,\mathbf{a}_2+\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_9\,\hat{\mathbf{y}}+a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{137}} =$	$-y_9\,\mathbf{a}_1-z_9\,\mathbf{a}_2-x_9\,\mathbf{a}_3$	$=$	$-ay_9\,\hat{\mathbf{x}}-az_9\,\hat{\mathbf{y}}-ax_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{138}} =$	$\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_1-z_9\,\mathbf{a}_2+\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}-az_9\,\hat{\mathbf{y}}+a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{139}} =$	$-y_9\,\mathbf{a}_1+\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_9+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_9\,\hat{\mathbf{x}}+a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(x_9+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{140}} =$	$\left(y_9+\frac{1}{2}\right)\,\mathbf{a}_1+\left(z_9+\frac{1}{2}\right)\,\mathbf{a}_2-x_9\,\mathbf{a}_3$	$=$	$a\left(y_9+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(z_9+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ax_9\,\hat{\mathbf{z}}$	(24h)	Cd IX
$\mathbf{B_{141}} =$	$x_{10}\,\mathbf{a}_1+y_{10}\,\mathbf{a}_2+z_{10}\,\mathbf{a}_3$	$=$	$ax_{10}\,\hat{\mathbf{x}}+ay_{10}\,\hat{\mathbf{y}}+az_{10}\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{142}} =$	$-\left(x_{10}-\frac{1}{2}\right)\,\mathbf{a}_1-\left(y_{10}-\frac{1}{2}\right)\,\mathbf{a}_2+z_{10}\,\mathbf{a}_3$	$=$	$-a\left(x_{10}-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(y_{10}-\frac{1}{2}\right)\,\hat{\mathbf{y}}+az_{10}\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{143}} =$	$-\left(x_{10}-\frac{1}{2}\right)\,\mathbf{a}_1+y_{10}\,\mathbf{a}_2-\left(z_{10}-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(x_{10}-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ay_{10}\,\hat{\mathbf{y}}-a\left(z_{10}-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{144}} =$	$x_{10}\,\mathbf{a}_1-\left(y_{10}-\frac{1}{2}\right)\,\mathbf{a}_2-\left(z_{10}-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$ax_{10}\,\hat{\mathbf{x}}-a\left(y_{10}-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(z_{10}-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{145}} =$	$z_{10}\,\mathbf{a}_1+x_{10}\,\mathbf{a}_2+y_{10}\,\mathbf{a}_3$	$=$	$az_{10}\,\hat{\mathbf{x}}+ax_{10}\,\hat{\mathbf{y}}+ay_{10}\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{146}} =$	$z_{10}\,\mathbf{a}_1-\left(x_{10}-\frac{1}{2}\right)\,\mathbf{a}_2-\left(y_{10}-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$az_{10}\,\hat{\mathbf{x}}-a\left(x_{10}-\frac{1}{2}\right)\,\hat{\mathbf{y}}-a\left(y_{10}-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{147}} =$	$-\left(z_{10}-\frac{1}{2}\right)\,\mathbf{a}_1-\left(x_{10}-\frac{1}{2}\right)\,\mathbf{a}_2+y_{10}\,\mathbf{a}_3$	$=$	$-a\left(z_{10}-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(x_{10}-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ay_{10}\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{148}} =$	$-\left(z_{10}-\frac{1}{2}\right)\,\mathbf{a}_1+x_{10}\,\mathbf{a}_2-\left(y_{10}-\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-a\left(z_{10}-\frac{1}{2}\right)\,\hat{\mathbf{x}}+ax_{10}\,\hat{\mathbf{y}}-a\left(y_{10}-\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Cd X
$\mathbf{B_{149}} =$	$y_{10}\,\mathbf{a}_1+z_{10}\,\mathbf{a}_2+x_{10}\,\mathbf{a}_3$	$=$	$ay_{10}\,\hat{\mathbf{x}}+az_{10}\,\hat{\mathbf{y}}+ax_{10}\,\hat{\mathbf{z}}$	(24h)	Cd X

$$\mathbf{B_{150}} = -\left(y_{10}-\tfrac{1}{2}\right)\mathbf{a}_1 + z_{10}\,\mathbf{a}_2 - \left(x_{10}-\tfrac{1}{2}\right)\mathbf{a}_3 = -a\left(y_{10}-\tfrac{1}{2}\right)\hat{\mathbf{x}} + az_{10}\,\hat{\mathbf{y}} - a\left(x_{10}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{151}} = y_{10}\,\mathbf{a}_1 - \left(z_{10}-\tfrac{1}{2}\right)\mathbf{a}_2 - \left(x_{10}-\tfrac{1}{2}\right)\mathbf{a}_3 = ay_{10}\,\hat{\mathbf{x}} - a\left(z_{10}-\tfrac{1}{2}\right)\hat{\mathbf{y}} - a\left(x_{10}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{152}} = -\left(y_{10}-\tfrac{1}{2}\right)\mathbf{a}_1 - \left(z_{10}-\tfrac{1}{2}\right)\mathbf{a}_2 + x_{10}\,\mathbf{a}_3 = -a\left(y_{10}-\tfrac{1}{2}\right)\hat{\mathbf{x}} - a\left(z_{10}-\tfrac{1}{2}\right)\hat{\mathbf{y}} + ax_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{153}} = -x_{10}\,\mathbf{a}_1 - y_{10}\,\mathbf{a}_2 - z_{10}\,\mathbf{a}_3 = -ax_{10}\,\hat{\mathbf{x}} - ay_{10}\,\hat{\mathbf{y}} - az_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{154}} = \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 + \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 - z_{10}\,\mathbf{a}_3 = a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} + a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} - az_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{155}} = \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 - y_{10}\,\mathbf{a}_2 + \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} - ay_{10}\,\hat{\mathbf{y}} + a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{156}} = -x_{10}\,\mathbf{a}_1 + \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 + \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = -ax_{10}\,\hat{\mathbf{x}} + a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} + a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{157}} = -z_{10}\,\mathbf{a}_1 - x_{10}\,\mathbf{a}_2 - y_{10}\,\mathbf{a}_3 = -az_{10}\,\hat{\mathbf{x}} - ax_{10}\,\hat{\mathbf{y}} - ay_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{158}} = -z_{10}\,\mathbf{a}_1 + \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 + \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = -az_{10}\,\hat{\mathbf{x}} + a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} + a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{159}} = \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 + \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 - y_{10}\,\mathbf{a}_3 = a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} + a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} - ay_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{160}} = \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 - x_{10}\,\mathbf{a}_2 + \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} - ax_{10}\,\hat{\mathbf{y}} + a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{161}} = -y_{10}\,\mathbf{a}_1 - z_{10}\,\mathbf{a}_2 - x_{10}\,\mathbf{a}_3 = -ay_{10}\,\hat{\mathbf{x}} - az_{10}\,\hat{\mathbf{y}} - ax_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{162}} = \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 - z_{10}\,\mathbf{a}_2 + \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} - az_{10}\,\hat{\mathbf{y}} + a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{163}} = -y_{10}\,\mathbf{a}_1 + \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 + \left(x_{10}+\tfrac{1}{2}\right)\mathbf{a}_3 = -ay_{10}\,\hat{\mathbf{x}} + a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} + a\left(x_{10}+\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{164}} = \left(y_{10}+\tfrac{1}{2}\right)\mathbf{a}_1 + \left(z_{10}+\tfrac{1}{2}\right)\mathbf{a}_2 - x_{10}\,\mathbf{a}_3 = a\left(y_{10}+\tfrac{1}{2}\right)\hat{\mathbf{x}} + a\left(z_{10}+\tfrac{1}{2}\right)\hat{\mathbf{y}} - ax_{10}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Cd X}$$

$$\mathbf{B_{165}} = x_{11}\,\mathbf{a}_1 + y_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3 = ax_{11}\,\hat{\mathbf{x}} + ay_{11}\,\hat{\mathbf{y}} + az_{11}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{166}} = -\left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_1 - \left(y_{11}-\tfrac{1}{2}\right)\mathbf{a}_2 + z_{11}\,\mathbf{a}_3 = -a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{x}} - a\left(y_{11}-\tfrac{1}{2}\right)\hat{\mathbf{y}} + az_{11}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{167}} = -\left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_1 + y_{11}\,\mathbf{a}_2 - \left(z_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = -a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{x}} + ay_{11}\,\hat{\mathbf{y}} - a\left(z_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{168}} = x_{11}\,\mathbf{a}_1 - \left(y_{11}-\tfrac{1}{2}\right)\mathbf{a}_2 - \left(z_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = ax_{11}\,\hat{\mathbf{x}} - a\left(y_{11}-\tfrac{1}{2}\right)\hat{\mathbf{y}} - a\left(z_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{169}} = z_{11}\,\mathbf{a}_1 + x_{11}\,\mathbf{a}_2 + y_{11}\,\mathbf{a}_3 = az_{11}\,\hat{\mathbf{x}} + ax_{11}\,\hat{\mathbf{y}} + ay_{11}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{170}} = z_{11}\,\mathbf{a}_1 - \left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_2 - \left(y_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = az_{11}\,\hat{\mathbf{x}} - a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{y}} - a\left(y_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{171}} = -\left(z_{11}-\tfrac{1}{2}\right)\mathbf{a}_1 - \left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_2 + y_{11}\,\mathbf{a}_3 = -a\left(z_{11}-\tfrac{1}{2}\right)\hat{\mathbf{x}} - a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{y}} + ay_{11}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{172}} = -\left(z_{11}-\tfrac{1}{2}\right)\mathbf{a}_1 + x_{11}\,\mathbf{a}_2 - \left(y_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = -a\left(z_{11}-\tfrac{1}{2}\right)\hat{\mathbf{x}} + ax_{11}\,\hat{\mathbf{y}} - a\left(y_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{173}} = y_{11}\,\mathbf{a}_1 + z_{11}\,\mathbf{a}_2 + x_{11}\,\mathbf{a}_3 = ay_{11}\,\hat{\mathbf{x}} + az_{11}\,\hat{\mathbf{y}} + ax_{11}\,\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{174}} = -\left(y_{11}-\tfrac{1}{2}\right)\mathbf{a}_1 + z_{11}\,\mathbf{a}_2 - \left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = -a\left(y_{11}-\tfrac{1}{2}\right)\hat{\mathbf{x}} + az_{11}\,\hat{\mathbf{y}} - a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$$\mathbf{B_{175}} = y_{11}\,\mathbf{a}_1 - \left(z_{11}-\tfrac{1}{2}\right)\mathbf{a}_2 - \left(x_{11}-\tfrac{1}{2}\right)\mathbf{a}_3 = ay_{11}\,\hat{\mathbf{x}} - a\left(z_{11}-\tfrac{1}{2}\right)\hat{\mathbf{y}} - a\left(x_{11}-\tfrac{1}{2}\right)\hat{\mathbf{z}} \quad (24h) \quad \text{Ce I}$$

$\mathbf{B_{176}} =$	$-\left(y_{11}-\frac{1}{2}\right)\,\mathbf{a}_1-\left(z_{11}-\frac{1}{2}\right)\,\mathbf{a}_2+x_{11}\,\mathbf{a}_3$	$=$	$-a\left(y_{11}-\frac{1}{2}\right)\,\hat{\mathbf{x}}-a\left(z_{11}-\frac{1}{2}\right)\,\hat{\mathbf{y}}+ax_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{177}} =$	$-x_{11}\,\mathbf{a}_1-y_{11}\,\mathbf{a}_2-z_{11}\,\mathbf{a}_3$	$=$	$-ax_{11}\,\hat{\mathbf{x}}-ay_{11}\,\hat{\mathbf{y}}-az_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{178}} =$	$\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_1+\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_2-z_{11}\,\mathbf{a}_3$	$=$	$a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}-az_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{179}} =$	$\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_1-y_{11}\,\mathbf{a}_2+\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ay_{11}\,\hat{\mathbf{y}}+a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{180}} =$	$-x_{11}\,\mathbf{a}_1+\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_2+\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ax_{11}\,\hat{\mathbf{x}}+a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{181}} =$	$-z_{11}\,\mathbf{a}_1-x_{11}\,\mathbf{a}_2-y_{11}\,\mathbf{a}_3$	$=$	$-az_{11}\,\hat{\mathbf{x}}-ax_{11}\,\hat{\mathbf{y}}-ay_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{182}} =$	$-z_{11}\,\mathbf{a}_1+\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_2+\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-az_{11}\,\hat{\mathbf{x}}+a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{183}} =$	$\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_1+\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_2-y_{11}\,\mathbf{a}_3$	$=$	$a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ay_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{184}} =$	$\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_1-x_{11}\,\mathbf{a}_2+\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}-ax_{11}\,\hat{\mathbf{y}}+a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{185}} =$	$-y_{11}\,\mathbf{a}_1-z_{11}\,\mathbf{a}_2-x_{11}\,\mathbf{a}_3$	$=$	$-ay_{11}\,\hat{\mathbf{x}}-az_{11}\,\hat{\mathbf{y}}-ax_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{186}} =$	$\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_1-z_{11}\,\mathbf{a}_2+\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}-az_{11}\,\hat{\mathbf{y}}+a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{187}} =$	$-y_{11}\,\mathbf{a}_1+\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_2+\left(x_{11}+\frac{1}{2}\right)\,\mathbf{a}_3$	$=$	$-ay_{11}\,\hat{\mathbf{x}}+a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}+a\left(x_{11}+\frac{1}{2}\right)\,\hat{\mathbf{z}}$	(24h)	Ce I
$\mathbf{B_{188}} =$	$\left(y_{11}+\frac{1}{2}\right)\,\mathbf{a}_1+\left(z_{11}+\frac{1}{2}\right)\,\mathbf{a}_2-x_{11}\,\mathbf{a}_3$	$=$	$a\left(y_{11}+\frac{1}{2}\right)\,\hat{\mathbf{x}}+a\left(z_{11}+\frac{1}{2}\right)\,\hat{\mathbf{y}}-ax_{11}\,\hat{\mathbf{z}}$	(24h)	Ce I

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