# $Ta_{21}Te_{13}$ Structure: A21B13_hP136_183_abc3d6e2f_2ab3d5e-001

Cite this page as: H. Eckert, S. Divilov, A. Zettel, M. J. Mehl, D. Hicks, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 4*. In preparation.

https://aflow.org/p/7BEE

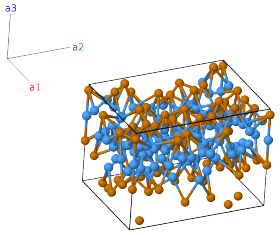
https://aflow.org/p/A21B13_hP136_183_abc3d6e2f_2ab3d5e-001

| | |
|---|---|
| **Prototype** | $Ta_{21}Te_{13}$ |
| **AFLOW prototype label** | A21B13_hP136_183_abc3d6e2f_2ab3d5e-001 |
| **ICSD** | 91811 |
| **Pearson symbol** | hP136 |
| **Space group number** | 183 |
| **Space group symbol** | $P6mm$ |
| **AFLOW prototype command** | `aflow --proto=A21B13_hP136_183_abc3d6e2f_2ab3d5e-001 --params=`$a, c/a, z_1, z_2, z_3, z_4, z_5, z_6, x_7, z_7, x_8, z_8, x_9, z_9, x_{10}, z_{10}, x_{11}, z_{11}, x_{12}, z_{12}, x_{13}, z_{13}, x_{14}, z_{14}, x_{15}, z_{15}, x_{16}, z_{16}, x_{17}, z_{17}, x_{18}, z_{18}, x_{19}, z_{19}, x_{20}, z_{20}, x_{21}, z_{21}, x_{22}, z_{22}, x_{23}, z_{23}, x_{24}, y_{24}, z_{24}, x_{25}, y_{25}, z_{25}$ |

- This is a hexagonal *approximate* of the quasicrystal dodecagonal tantalum telluride (dd-$Ta_{1.6}Te$) structure. It may be useful as a starting point for first-principles calculations.
- Space group $P6mm$ #183 does not specify the origin of the $z$-axis. We use the values of (Conrad, 2000). (Villars, 2006) sets $z_2 = 0$ for the Te-I site.

## Hexagonal primitive vectors

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




## Basis vectors

| | | Lattice coordinates | | Cartesian coordinates | Wyckoff position | Atom type |
|---|---|---|---|---|---|---|
| $\mathbf{B_1}$ | = | $z_1\,\mathbf{a}_3$ | = | $cz_1\,\hat{\mathbf{z}}$ | (1a) | Ta I |
| $\mathbf{B_2}$ | = | $z_2\,\mathbf{a}_3$ | = | $cz_2\,\hat{\mathbf{z}}$ | (1a) | Te I |
| $\mathbf{B_3}$ | = | $z_3\,\mathbf{a}_3$ | = | $cz_3\,\hat{\mathbf{z}}$ | (1a) | Te II |
| $\mathbf{B_4}$ | = | $\frac{1}{3}\,\mathbf{a}_1 + \frac{2}{3}\,\mathbf{a}_2 + z_4\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + cz_4\,\hat{\mathbf{z}}$ | (2b) | Ta II |
| $\mathbf{B_5}$ | = | $\frac{2}{3}\,\mathbf{a}_1 + \frac{1}{3}\,\mathbf{a}_2 + z_4\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + cz_4\,\hat{\mathbf{z}}$ | (2b) | Ta II |
| $\mathbf{B_6}$ | = | $\frac{1}{3}\,\mathbf{a}_1 + \frac{2}{3}\,\mathbf{a}_2 + z_5\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + cz_5\,\hat{\mathbf{z}}$ | (2b) | Te III |

| | | | | | | |
|---|---|---|---|---|---|---|
| $\mathbf{B_7}$ | = | $\frac{2}{3}\,\mathbf{a}_1 + \frac{1}{3}\,\mathbf{a}_2 + z_5\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{6}a\,\hat{\mathbf{y}} + cz_5\,\hat{\mathbf{z}}$ | (2b) | Te III |
| $\mathbf{B_8}$ | = | $\frac{1}{2}\,\mathbf{a}_1 + z_6\,\mathbf{a}_3$ | = | $\frac{1}{4}a\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{4}a\,\hat{\mathbf{y}} + cz_6\,\hat{\mathbf{z}}$ | (3c) | Ta III |
| $\mathbf{B_9}$ | = | $\frac{1}{2}\,\mathbf{a}_2 + z_6\,\mathbf{a}_3$ | = | $\frac{1}{4}a\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{4}a\,\hat{\mathbf{y}} + cz_6\,\hat{\mathbf{z}}$ | (3c) | Ta III |
| $\mathbf{B_{10}}$ | = | $\frac{1}{2}\,\mathbf{a}_1 + \frac{1}{2}\,\mathbf{a}_2 + z_6\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,\hat{\mathbf{x}} + cz_6\,\hat{\mathbf{z}}$ | (3c) | Ta III |
| $\mathbf{B_{11}}$ | = | $x_7\,\mathbf{a}_1 + z_7\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_7\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_7\,\hat{\mathbf{y}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{12}}$ | = | $x_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_7\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_7\,\hat{\mathbf{y}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{13}}$ | = | $-x_7\,\mathbf{a}_1 - x_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$ | = | $-ax_7\,\hat{\mathbf{x}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{14}}$ | = | $-x_7\,\mathbf{a}_1 + z_7\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_7\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_7\,\hat{\mathbf{y}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{15}}$ | = | $-x_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_7\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_7\,\hat{\mathbf{y}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{16}}$ | = | $x_7\,\mathbf{a}_1 + x_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$ | = | $ax_7\,\hat{\mathbf{x}} + cz_7\,\hat{\mathbf{z}}$ | (6d) | Ta IV |
| $\mathbf{B_{17}}$ | = | $x_8\,\mathbf{a}_1 + z_8\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_8\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_8\,\hat{\mathbf{y}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{18}}$ | = | $x_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_8\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_8\,\hat{\mathbf{y}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{19}}$ | = | $-x_8\,\mathbf{a}_1 - x_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$ | = | $-ax_8\,\hat{\mathbf{x}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{20}}$ | = | $-x_8\,\mathbf{a}_1 + z_8\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_8\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_8\,\hat{\mathbf{y}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{21}}$ | = | $-x_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_8\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_8\,\hat{\mathbf{y}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{22}}$ | = | $x_8\,\mathbf{a}_1 + x_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$ | = | $ax_8\,\hat{\mathbf{x}} + cz_8\,\hat{\mathbf{z}}$ | (6d) | Ta V |
| $\mathbf{B_{23}}$ | = | $x_9\,\mathbf{a}_1 + z_9\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_9\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_9\,\hat{\mathbf{y}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{24}}$ | = | $x_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_9\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_9\,\hat{\mathbf{y}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{25}}$ | = | $-x_9\,\mathbf{a}_1 - x_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$ | = | $-ax_9\,\hat{\mathbf{x}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{26}}$ | = | $-x_9\,\mathbf{a}_1 + z_9\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_9\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_9\,\hat{\mathbf{y}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{27}}$ | = | $-x_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_9\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_9\,\hat{\mathbf{y}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{28}}$ | = | $x_9\,\mathbf{a}_1 + x_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$ | = | $ax_9\,\hat{\mathbf{x}} + cz_9\,\hat{\mathbf{z}}$ | (6d) | Ta VI |
| $\mathbf{B_{29}}$ | = | $x_{10}\,\mathbf{a}_1 + z_{10}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{10}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{10}\,\hat{\mathbf{y}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{30}}$ | = | $x_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{10}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{10}\,\hat{\mathbf{y}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{31}}$ | = | $-x_{10}\,\mathbf{a}_1 - x_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$ | = | $-ax_{10}\,\hat{\mathbf{x}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{32}}$ | = | $-x_{10}\,\mathbf{a}_1 + z_{10}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{10}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{10}\,\hat{\mathbf{y}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{33}}$ | = | $-x_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{10}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{10}\,\hat{\mathbf{y}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{34}}$ | = | $x_{10}\,\mathbf{a}_1 + x_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$ | = | $ax_{10}\,\hat{\mathbf{x}} + cz_{10}\,\hat{\mathbf{z}}$ | (6d) | Te IV |
| $\mathbf{B_{35}}$ | = | $x_{11}\,\mathbf{a}_1 + z_{11}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{11}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{11}\,\hat{\mathbf{y}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{36}}$ | = | $x_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{11}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{11}\,\hat{\mathbf{y}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{37}}$ | = | $-x_{11}\,\mathbf{a}_1 - x_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$ | = | $-ax_{11}\,\hat{\mathbf{x}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{38}}$ | = | $-x_{11}\,\mathbf{a}_1 + z_{11}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{11}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{11}\,\hat{\mathbf{y}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{39}}$ | = | $-x_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{11}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{11}\,\hat{\mathbf{y}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{40}}$ | = | $x_{11}\,\mathbf{a}_1 + x_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$ | = | $ax_{11}\,\hat{\mathbf{x}} + cz_{11}\,\hat{\mathbf{z}}$ | (6d) | Te V |
| $\mathbf{B_{41}}$ | = | $x_{12}\,\mathbf{a}_1 + z_{12}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{12}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{12}\,\hat{\mathbf{y}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{42}}$ | = | $x_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$ | = | $\frac{1}{2}ax_{12}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{12}\,\hat{\mathbf{y}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{43}}$ | = | $-x_{12}\,\mathbf{a}_1 - x_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$ | = | $-ax_{12}\,\hat{\mathbf{x}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{44}}$ | = | $-x_{12}\,\mathbf{a}_1 + z_{12}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{12}\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{12}\,\hat{\mathbf{y}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{45}}$ | = | $-x_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$ | = | $-\frac{1}{2}ax_{12}\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{12}\,\hat{\mathbf{y}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{46}}$ | = | $x_{12}\,\mathbf{a}_1 + x_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$ | = | $ax_{12}\,\hat{\mathbf{x}} + cz_{12}\,\hat{\mathbf{z}}$ | (6d) | Te VI |
| $\mathbf{B_{47}}$ | = | $x_{13}\,\mathbf{a}_1 - x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3$ | = | $-\sqrt{3}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}}$ | (6e) | Ta VII |

$$\mathbf{B_{48}} = x_{13}\,\mathbf{a}_1 + 2x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{13}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VII}$$

$$\mathbf{B_{49}} = -2x_{13}\,\mathbf{a}_1 - x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{13}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VII}$$

$$\mathbf{B_{50}} = -x_{13}\,\mathbf{a}_1 + x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = \sqrt{3}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VII}$$

$$\mathbf{B_{51}} = -x_{13}\,\mathbf{a}_1 - 2x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{13}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VII}$$

$$\mathbf{B_{52}} = 2x_{13}\,\mathbf{a}_1 + x_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{13}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{13}\,\hat{\mathbf{y}} + cz_{13}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VII}$$

$$\mathbf{B_{53}} = x_{14}\,\mathbf{a}_1 - x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = -\sqrt{3}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{54}} = x_{14}\,\mathbf{a}_1 + 2x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{14}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{55}} = -2x_{14}\,\mathbf{a}_1 - x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{14}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{56}} = -x_{14}\,\mathbf{a}_1 + x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = \sqrt{3}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{57}} = -x_{14}\,\mathbf{a}_1 - 2x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{14}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{58}} = 2x_{14}\,\mathbf{a}_1 + x_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{14}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{14}\,\hat{\mathbf{y}} + cz_{14}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta VIII}$$

$$\mathbf{B_{59}} = x_{15}\,\mathbf{a}_1 - x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = -\sqrt{3}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{60}} = x_{15}\,\mathbf{a}_1 + 2x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{15}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{61}} = -2x_{15}\,\mathbf{a}_1 - x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{15}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{62}} = -x_{15}\,\mathbf{a}_1 + x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = \sqrt{3}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{63}} = -x_{15}\,\mathbf{a}_1 - 2x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{15}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{64}} = 2x_{15}\,\mathbf{a}_1 + x_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{15}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{15}\,\hat{\mathbf{y}} + cz_{15}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta IX}$$

$$\mathbf{B_{65}} = x_{16}\,\mathbf{a}_1 - x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = -\sqrt{3}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{66}} = x_{16}\,\mathbf{a}_1 + 2x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{16}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{67}} = -2x_{16}\,\mathbf{a}_1 - x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{16}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{68}} = -x_{16}\,\mathbf{a}_1 + x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = \sqrt{3}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{69}} = -x_{16}\,\mathbf{a}_1 - 2x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{16}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{70}} = 2x_{16}\,\mathbf{a}_1 + x_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{16}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{16}\,\hat{\mathbf{y}} + cz_{16}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta X}$$

$$\mathbf{B_{71}} = x_{17}\,\mathbf{a}_1 - x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = -\sqrt{3}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{72}} = x_{17}\,\mathbf{a}_1 + 2x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{17}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{73}} = -2x_{17}\,\mathbf{a}_1 - x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{17}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{74}} = -x_{17}\,\mathbf{a}_1 + x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = \sqrt{3}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{75}} = -x_{17}\,\mathbf{a}_1 - 2x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{17}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{76}} = 2x_{17}\,\mathbf{a}_1 + x_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{17}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{17}\,\hat{\mathbf{y}} + cz_{17}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XI}$$

$$\mathbf{B_{77}} = x_{18}\,\mathbf{a}_1 - x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = -\sqrt{3}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{78}} = x_{18}\,\mathbf{a}_1 + 2x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{18}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{79}} = -2x_{18}\,\mathbf{a}_1 - x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{18}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{80}} = -x_{18}\,\mathbf{a}_1 + x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = \sqrt{3}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{81}} = -x_{18}\,\mathbf{a}_1 - 2x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{18}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{82}} = 2x_{18}\,\mathbf{a}_1 + x_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{18}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{18}\,\hat{\mathbf{y}} + cz_{18}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Ta XII}$$

$$\mathbf{B_{83}} = x_{19}\,\mathbf{a}_1 - x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = -\sqrt{3}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{84}} = x_{19}\,\mathbf{a}_1 + 2x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{19}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{85}} = -2x_{19}\,\mathbf{a}_1 - x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{19}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{86}} = -x_{19}\,\mathbf{a}_1 + x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = \sqrt{3}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{87}} = -x_{19}\,\mathbf{a}_1 - 2x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{19}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{88}} = 2x_{19}\,\mathbf{a}_1 + x_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{19}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{19}\,\hat{\mathbf{y}} + cz_{19}\,\hat{\mathbf{z}} \quad \text{(6e)} \quad \text{Te VII}$$

$$\mathbf{B_{89}} = x_{20}\,\mathbf{a}_1 - x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = -\sqrt{3}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{90}} = x_{20}\,\mathbf{a}_1 + 2x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{20}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{91}} = -2x_{20}\,\mathbf{a}_1 - x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{20}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{92}} = -x_{20}\,\mathbf{a}_1 + x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = \sqrt{3}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{93}} = -x_{20}\,\mathbf{a}_1 - 2x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{20}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{94}} = 2x_{20}\,\mathbf{a}_1 + x_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{20}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{20}\,\hat{\mathbf{y}} + cz_{20}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te VIII}$$

$$\mathbf{B_{95}} = x_{21}\,\mathbf{a}_1 - x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = -\sqrt{3}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{96}} = x_{21}\,\mathbf{a}_1 + 2x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{21}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{97}} = -2x_{21}\,\mathbf{a}_1 - x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{21}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{98}} = -x_{21}\,\mathbf{a}_1 + x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = \sqrt{3}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{99}} = -x_{21}\,\mathbf{a}_1 - 2x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{21}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{100}} = 2x_{21}\,\mathbf{a}_1 + x_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{21}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{21}\,\hat{\mathbf{y}} + cz_{21}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te IX}$$

$$\mathbf{B_{101}} = x_{22}\,\mathbf{a}_1 - x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = -\sqrt{3}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{102}} = x_{22}\,\mathbf{a}_1 + 2x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{22}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{103}} = -2x_{22}\,\mathbf{a}_1 - x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{22}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{104}} = -x_{22}\,\mathbf{a}_1 + x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = \sqrt{3}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{105}} = -x_{22}\,\mathbf{a}_1 - 2x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{22}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{106}} = 2x_{22}\,\mathbf{a}_1 + x_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{22}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{22}\,\hat{\mathbf{y}} + cz_{22}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te X}$$

$$\mathbf{B_{107}} = x_{23}\,\mathbf{a}_1 - x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = -\sqrt{3}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{108}} = x_{23}\,\mathbf{a}_1 + 2x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{23}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{109}} = -2x_{23}\,\mathbf{a}_1 - x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{23}\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{110}} = -x_{23}\,\mathbf{a}_1 + x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = \sqrt{3}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{111}} = -x_{23}\,\mathbf{a}_1 - 2x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = -\tfrac{3}{2}ax_{23}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{112}} = 2x_{23}\,\mathbf{a}_1 + x_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = \tfrac{3}{2}ax_{23}\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{23}\,\hat{\mathbf{y}} + cz_{23}\,\hat{\mathbf{z}} \quad (6e) \quad \text{Te XI}$$

$$\mathbf{B_{113}} = x_{24}\,\mathbf{a}_1 + y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{24}+y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}a\,(x_{24}-y_{24})\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{114}} = -y_{24}\,\mathbf{a}_1 + (x_{24}-y_{24})\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{24}-2y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{115}} = -(x_{24}-y_{24})\,\mathbf{a}_1 - x_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = -\tfrac{1}{2}a\,(2x_{24}-y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ay_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{116}} = -x_{24}\,\mathbf{a}_1 - y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = -\tfrac{1}{2}a\,(x_{24}+y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}a\,(x_{24}-y_{24})\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{117}} = y_{24}\,\mathbf{a}_1 - (x_{24}-y_{24})\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(-x_{24}+2y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{118}} = (x_{24}-y_{24})\,\mathbf{a}_1 + x_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(2x_{24}-y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ay_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{119}} = -y_{24}\,\mathbf{a}_1 - x_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = -\tfrac{1}{2}a\,(x_{24}+y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}a\,(x_{24}-y_{24})\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{120}} = -(x_{24}-y_{24})\,\mathbf{a}_1 + y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(-x_{24}+2y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{121}} = x_{24}\,\mathbf{a}_1 + (x_{24}-y_{24})\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(2x_{24}-y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ay_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{122}} = y_{24}\,\mathbf{a}_1 + x_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{24}+y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}a\,(x_{24}-y_{24})\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{123}} = (x_{24}-y_{24})\,\mathbf{a}_1 - y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{24}-2y_{24})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}ax_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{124}} = -x_{24}\,\mathbf{a}_1 - (x_{24}-y_{24})\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = -\tfrac{1}{2}a\,(2x_{24}-y_{24})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ay_{24}\,\hat{\mathbf{y}} + cz_{24}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIII}$$

$$\mathbf{B_{125}} = x_{25}\,\mathbf{a}_1 + y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{25}+y_{25})\,\hat{\mathbf{x}} - \tfrac{\sqrt{3}}{2}a\,(x_{25}-y_{25})\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIV}$$

$$\mathbf{B_{126}} = -y_{25}\,\mathbf{a}_1 + (x_{25}-y_{25})\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3 = \tfrac{1}{2}a\,(x_{25}-2y_{25})\,\hat{\mathbf{x}} + \tfrac{\sqrt{3}}{2}ax_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}} \quad (12f) \quad \text{Ta XIV}$$

| | | | | | |
|---|---|---|---|---|---|
| $\mathbf{B_{127}}$ = | $-(x_{25}-y_{25})\,\mathbf{a}_1 - x_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $-\frac{1}{2}a\,(2x_{25}-y_{25})\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{128}}$ = | $-x_{25}\,\mathbf{a}_1 - y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $-\frac{1}{2}a\,(x_{25}+y_{25})\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}a\,(x_{25}-y_{25})\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{129}}$ = | $y_{25}\,\mathbf{a}_1 - (x_{25}-y_{25})\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(-x_{25}+2y_{25})\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{130}}$ = | $(x_{25}-y_{25})\,\mathbf{a}_1 + x_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(2x_{25}-y_{25})\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ay_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{131}}$ = | $-y_{25}\,\mathbf{a}_1 - x_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $-\frac{1}{2}a\,(x_{25}+y_{25})\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a\,(x_{25}-y_{25})\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{132}}$ = | $-(x_{25}-y_{25})\,\mathbf{a}_1 + y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(-x_{25}+2y_{25})\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{133}}$ = | $x_{25}\,\mathbf{a}_1 + (x_{25}-y_{25})\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(2x_{25}-y_{25})\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{134}}$ = | $y_{25}\,\mathbf{a}_1 + x_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(x_{25}+y_{25})\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}a\,(x_{25}-y_{25})\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{135}}$ = | $(x_{25}-y_{25})\,\mathbf{a}_1 - y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $\frac{1}{2}a\,(x_{25}-2y_{25})\,\hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ax_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |
| $\mathbf{B_{136}}$ = | $-x_{25}\,\mathbf{a}_1 - (x_{25}-y_{25})\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$ | = | $-\frac{1}{2}a\,(2x_{25}-y_{25})\,\hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ay_{25}\,\hat{\mathbf{y}} + cz_{25}\,\hat{\mathbf{z}}$ | (12f) | Ta XIV |

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