Triclinic tridymite (295K) $AlPO_4$ Structure: AB4C_aP240_1_40a_160a_40a-001

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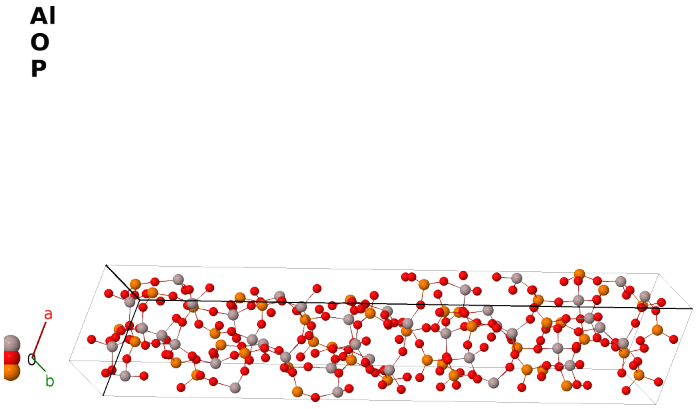
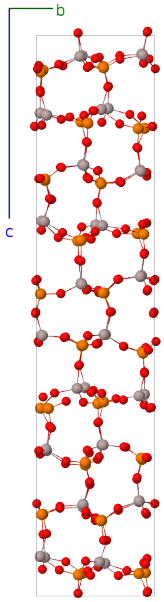
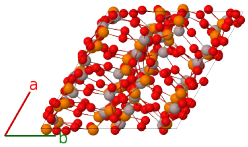
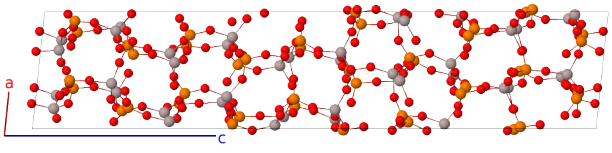
https://aflow.org/prototype-encyclopedia/FWJQ

https://aflow.org/prototype-encyclopedia/AB4C_aP240_1_40a_160a_40a-001









Prototype	AlO_4P
AFLOW prototype label	AB4C_aP240_1_40a_160a_40a-001
ICSD	280307
CCDC	1721023
Pearson symbol	aP240
Space group number	1
Space group symbol	$P1$
AFLOW prototype command	`aflow --proto=AB4C_aP240_1_40a_160a_40a-001 --params=`$a, b/a, c/a, \alpha, \beta, \gamma, x_1, y_1, z_1, x_2, y_2, z_2, x_3, y_3, z_3, x_4, y_4, z_4, x_5, y_5, z_5, x_6, y_6, z_6, x_7, y_7, z_7, x_8, y_8, z_8, x_9, y_9, z_9, x_{10}, y_{10}, z_{10}, x_{11}, y_{11}, z_{11}, x_{12}, y_{12}, z_{12}, x_{13}, y_{13}, z_{13}, x_{14}, y_{14}, z_{14}, x_{15}, y_{15}, z_{15}, x_{16}, y_{16}, z_{16}, x_{17}, y_{17}, z_{17}, x_{18}, y_{18}, z_{18}, x_{19}, y_{19}, z_{19}, x_{20}, y_{20}, z_{20}, x_{21}, y_{21}, z_{21}, x_{22}, y_{22}, z_{22}, x_{23}, y_{23}, z_{23}, x_{24}, y_{24}, z_{24}, x_{25}, y_{25}, z_{25}, x_{26}, y_{26}, z_{26}, x_{27}, y_{27}, z_{27}, x_{28}, y_{28}, z_{28}, x_{29}, y_{29}, z_{29}, x_{30}, y_{30}, z_{30}, x_{31}, y_{31}, z_{31}, x_{32}, y_{32}, z_{32}, x_{33}, y_{33}, z_{33}, x_{34}, y_{34}, z_{34}, x_{35}, y_{35}, z_{35}, x_{36}, y_{36}, z_{36}, x_{37}, y_{37}, z_{37}, x_{38}, y_{38}, z_{38}, x_{39}, y_{39}, z_{39}, x_{40}, y_{40}, z_{40}, 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z_{121}, x_{122}, y_{122}, z_{122}, x_{123}, y_{123}, z_{123}, x_{124}, y_{124}, z_{124}, x_{125}, y_{125}, z_{125}, x_{126}, y_{126}, z_{126}, x_{127}, y_{127}, z_{127}, x_{128}, y_{128}, z_{128}, x_{129}, y_{129}, z_{129}, x_{130}, y_{130}, z_{130}, x_{131}, y_{131}, z_{131}, x_{132}, y_{132}, z_{132}, x_{133}, y_{133}, z_{133}, x_{134}, y_{134}, z_{134}, x_{135}, y_{135}, z_{135}, x_{136}, y_{136}, z_{136}, x_{137}, y_{137}, z_{137}, x_{138}, y_{138}, z_{138}, x_{139}, y_{139}, z_{139}, x_{140}, y_{140}, z_{140}, x_{141}, y_{141}, z_{141}, x_{142}, y_{142}, z_{142}, x_{143}, y_{143}, z_{143}, x_{144}, y_{144}, z_{144}, x_{145}, y_{145}, z_{145}, x_{146}, y_{146}, z_{146}, x_{147}, y_{147}, z_{147}, x_{148}, y_{148}, z_{148}, x_{149}, y_{149}, z_{149}, x_{150}, y_{150}, z_{150}, x_{151}, y_{151}, z_{151}, x_{152}, y_{152}, z_{152}, x_{153}, y_{153}, z_{153}, x_{154}, y_{154}, z_{154}, x_{155}, y_{155}, z_{155}, x_{156}, y_{156}, z_{156}, x_{157}, y_{157}, z_{157}, x_{158}, y_{158}, 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z_{232}, x_{233}, y_{233}, z_{233}, x_{234}, y_{234}, z_{234}, x_{235}, y_{235}, z_{235}, x_{236}, y_{236}, z_{236}, x_{237}, y_{237}, z_{237}, x_{238}, y_{238}, z_{238}, x_{239}, y_{239}, z_{239}, x_{240}, y_{240}, z_{240}$

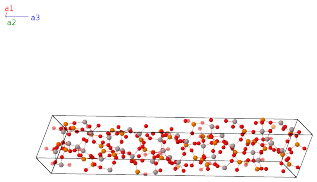
- The tridymite form of $AlPO_4$ is related to the tridymite forms of SiO_2. Like SiO_2 it undergoes a series of temperature driven phase transitions (Graetsch, 2002):
  - The high temperature form is hexagonal, space group $P6_3mc$ #186 at temperatures above $\approx$ 590K
  - The first intermediate form is monoclinic, space group $P2_1$ #4 at temperatures above $\approx$ 460K

  - The second intermediate form, $P2_1(\alpha\beta 0)$, is incommensurate but averages to a structure similar to the previous one
  - This is followed by an orthorhombic form, space group $P2_12_12_1$ #19, for which we have no data.
  - Near room temperature we find another monoclinic structure, space group Pc #7
  - The low temperature structure is triclinic, space group $P1$ #1 (this structure), also measured at room temperature.

- The astute reader will recognize that we are very vague about these phase transitions, as we have found no definitive phase diagram.
- For more information on realted structures see our silica and aluminum phosphate page.
- Data for this structure was given in the $F1$ setting of space group #1. This gives a conventional unit cell which is four times larger than the primitive cell and is very close to an orthorhombic cell. We used AFLOW to convert this to the standard $P1$ setting, which produces a cell equivalent to the primitive unit cell in the $F1$ setting.

Triclinic primitive vectors

$$
\begin{aligned}
\mathbf{a_1} &= a\,\hat{\mathbf{x}} \\
\mathbf{a_2} &= b\cos\gamma\,\hat{\mathbf{x}} + b\sin\gamma\,\hat{\mathbf{y}} \\
\mathbf{a_3} &= c_x\,\hat{\mathbf{x}} + c_y\,\hat{\mathbf{y}} + c_z\,\hat{\mathbf{z}} \\
c_x &= c\cos\beta \\
c_y &= c(\cos\alpha - \cos\beta\cos\gamma)/\sin\gamma \\
c_z &= \sqrt{c^2 - c_x^2 - c_y^2}
\end{aligned}
$$



Basis vectors

		Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$	=	$x_1\,\mathbf{a}_1 + y_1\,\mathbf{a}_2 + z_1\,\mathbf{a}_3$	=	$(ax_1 + by_1\cos\gamma + c_xz_1)\,\hat{\mathbf{x}} + (by_1\sin\gamma + c_yz_1)\,\hat{\mathbf{y}} + c_zz_1\,\hat{\mathbf{z}}$	(1a)	Al I
$\mathbf{B_2}$	=	$x_2\,\mathbf{a}_1 + y_2\,\mathbf{a}_2 + z_2\,\mathbf{a}_3$	=	$(ax_2 + by_2\cos\gamma + c_xz_2)\,\hat{\mathbf{x}} + (by_2\sin\gamma + c_yz_2)\,\hat{\mathbf{y}} + c_zz_2\,\hat{\mathbf{z}}$	(1a)	Al II
$\mathbf{B_3}$	=	$x_3\,\mathbf{a}_1 + y_3\,\mathbf{a}_2 + z_3\,\mathbf{a}_3$	=	$(ax_3 + by_3\cos\gamma + c_xz_3)\,\hat{\mathbf{x}} + (by_3\sin\gamma + c_yz_3)\,\hat{\mathbf{y}} + c_zz_3\,\hat{\mathbf{z}}$	(1a)	Al III
$\mathbf{B_4}$	=	$x_4\,\mathbf{a}_1 + y_4\,\mathbf{a}_2 + z_4\,\mathbf{a}_3$	=	$(ax_4 + by_4\cos\gamma + c_xz_4)\,\hat{\mathbf{x}} + (by_4\sin\gamma + c_yz_4)\,\hat{\mathbf{y}} + c_zz_4\,\hat{\mathbf{z}}$	(1a)	Al IV
$\mathbf{B_5}$	=	$x_5\,\mathbf{a}_1 + y_5\,\mathbf{a}_2 + z_5\,\mathbf{a}_3$	=	$(ax_5 + by_5\cos\gamma + c_xz_5)\,\hat{\mathbf{x}} + (by_5\sin\gamma + c_yz_5)\,\hat{\mathbf{y}} + c_zz_5\,\hat{\mathbf{z}}$	(1a)	Al V
$\mathbf{B_6}$	=	$x_6\,\mathbf{a}_1 + y_6\,\mathbf{a}_2 + z_6\,\mathbf{a}_3$	=	$(ax_6 + by_6\cos\gamma + c_xz_6)\,\hat{\mathbf{x}} + (by_6\sin\gamma + c_yz_6)\,\hat{\mathbf{y}} + c_zz_6\,\hat{\mathbf{z}}$	(1a)	Al VI
$\mathbf{B_7}$	=	$x_7\,\mathbf{a}_1 + y_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$	=	$(ax_7 + by_7\cos\gamma + c_xz_7)\,\hat{\mathbf{x}} + (by_7\sin\gamma + c_yz_7)\,\hat{\mathbf{y}} + c_zz_7\,\hat{\mathbf{z}}$	(1a)	Al VII
$\mathbf{B_8}$	=	$x_8\,\mathbf{a}_1 + y_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$	=	$(ax_8 + by_8\cos\gamma + c_xz_8)\,\hat{\mathbf{x}} + (by_8\sin\gamma + c_yz_8)\,\hat{\mathbf{y}} + c_zz_8\,\hat{\mathbf{z}}$	(1a)	Al VIII
$\mathbf{B_9}$	=	$x_9\,\mathbf{a}_1 + y_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$	=	$(ax_9 + by_9\cos\gamma + c_xz_9)\,\hat{\mathbf{x}} + (by_9\sin\gamma + c_yz_9)\,\hat{\mathbf{y}} + c_zz_9\,\hat{\mathbf{z}}$	(1a)	Al IX
$\mathbf{B_{10}}$	=	$x_{10}\,\mathbf{a}_1 + y_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$	=	$(ax_{10} + by_{10}\cos\gamma + c_xz_{10})\,\hat{\mathbf{x}} + (by_{10}\sin\gamma + c_yz_{10})\,\hat{\mathbf{y}} + c_zz_{10}\,\hat{\mathbf{z}}$	(1a)	Al X

$$\mathbf{B_{11}} = x_{11}\,\mathbf{a}_1 + y_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3 = (ax_{11} + by_{11}\cos\gamma + c_x z_{11})\,\hat{\mathbf{x}} + (by_{11}\sin\gamma + c_y z_{11})\,\hat{\mathbf{y}} + c_z z_{11}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XI}$$

$$\mathbf{B_{12}} = x_{12}\,\mathbf{a}_1 + y_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3 = (ax_{12} + by_{12}\cos\gamma + c_x z_{12})\,\hat{\mathbf{x}} + (by_{12}\sin\gamma + c_y z_{12})\,\hat{\mathbf{y}} + c_z z_{12}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XII}$$

$$\mathbf{B_{13}} = x_{13}\,\mathbf{a}_1 + y_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3 = (ax_{13} + by_{13}\cos\gamma + c_x z_{13})\,\hat{\mathbf{x}} + (by_{13}\sin\gamma + c_y z_{13})\,\hat{\mathbf{y}} + c_z z_{13}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XIII}$$

$$\mathbf{B_{14}} = x_{14}\,\mathbf{a}_1 + y_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3 = (ax_{14} + by_{14}\cos\gamma + c_x z_{14})\,\hat{\mathbf{x}} + (by_{14}\sin\gamma + c_y z_{14})\,\hat{\mathbf{y}} + c_z z_{14}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XIV}$$

$$\mathbf{B_{15}} = x_{15}\,\mathbf{a}_1 + y_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3 = (ax_{15} + by_{15}\cos\gamma + c_x z_{15})\,\hat{\mathbf{x}} + (by_{15}\sin\gamma + c_y z_{15})\,\hat{\mathbf{y}} + c_z z_{15}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XV}$$

$$\mathbf{B_{16}} = x_{16}\,\mathbf{a}_1 + y_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3 = (ax_{16} + by_{16}\cos\gamma + c_x z_{16})\,\hat{\mathbf{x}} + (by_{16}\sin\gamma + c_y z_{16})\,\hat{\mathbf{y}} + c_z z_{16}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XVI}$$

$$\mathbf{B_{17}} = x_{17}\,\mathbf{a}_1 + y_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3 = (ax_{17} + by_{17}\cos\gamma + c_x z_{17})\,\hat{\mathbf{x}} + (by_{17}\sin\gamma + c_y z_{17})\,\hat{\mathbf{y}} + c_z z_{17}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XVII}$$

$$\mathbf{B_{18}} = x_{18}\,\mathbf{a}_1 + y_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3 = (ax_{18} + by_{18}\cos\gamma + c_x z_{18})\,\hat{\mathbf{x}} + (by_{18}\sin\gamma + c_y z_{18})\,\hat{\mathbf{y}} + c_z z_{18}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XVIII}$$

$$\mathbf{B_{19}} = x_{19}\,\mathbf{a}_1 + y_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3 = (ax_{19} + by_{19}\cos\gamma + c_x z_{19})\,\hat{\mathbf{x}} + (by_{19}\sin\gamma + c_y z_{19})\,\hat{\mathbf{y}} + c_z z_{19}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XIX}$$

$$\mathbf{B_{20}} = x_{20}\,\mathbf{a}_1 + y_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3 = (ax_{20} + by_{20}\cos\gamma + c_x z_{20})\,\hat{\mathbf{x}} + (by_{20}\sin\gamma + c_y z_{20})\,\hat{\mathbf{y}} + c_z z_{20}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XX}$$

$$\mathbf{B_{21}} = x_{21}\,\mathbf{a}_1 + y_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3 = (ax_{21} + by_{21}\cos\gamma + c_x z_{21})\,\hat{\mathbf{x}} + (by_{21}\sin\gamma + c_y z_{21})\,\hat{\mathbf{y}} + c_z z_{21}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXI}$$

$$\mathbf{B_{22}} = x_{22}\,\mathbf{a}_1 + y_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3 = (ax_{22} + by_{22}\cos\gamma + c_x z_{22})\,\hat{\mathbf{x}} + (by_{22}\sin\gamma + c_y z_{22})\,\hat{\mathbf{y}} + c_z z_{22}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXII}$$

$$\mathbf{B_{23}} = x_{23}\,\mathbf{a}_1 + y_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3 = (ax_{23} + by_{23}\cos\gamma + c_x z_{23})\,\hat{\mathbf{x}} + (by_{23}\sin\gamma + c_y z_{23})\,\hat{\mathbf{y}} + c_z z_{23}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXIII}$$

$$\mathbf{B_{24}} = x_{24}\,\mathbf{a}_1 + y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3 = (ax_{24} + by_{24}\cos\gamma + c_x z_{24})\,\hat{\mathbf{x}} + (by_{24}\sin\gamma + c_y z_{24})\,\hat{\mathbf{y}} + c_z z_{24}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXIV}$$

$$\mathbf{B_{25}} = x_{25}\,\mathbf{a}_1 + y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3 = (ax_{25} + by_{25}\cos\gamma + c_x z_{25})\,\hat{\mathbf{x}} + (by_{25}\sin\gamma + c_y z_{25})\,\hat{\mathbf{y}} + c_z z_{25}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXV}$$

$$\mathbf{B_{26}} = x_{26}\,\mathbf{a}_1 + y_{26}\,\mathbf{a}_2 + z_{26}\,\mathbf{a}_3 = (ax_{26} + by_{26}\cos\gamma + c_x z_{26})\,\hat{\mathbf{x}} + (by_{26}\sin\gamma + c_y z_{26})\,\hat{\mathbf{y}} + c_z z_{26}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXVI}$$

$$\mathbf{B_{27}} = x_{27}\,\mathbf{a}_1 + y_{27}\,\mathbf{a}_2 + z_{27}\,\mathbf{a}_3 = (ax_{27} + by_{27}\cos\gamma + c_x z_{27})\,\hat{\mathbf{x}} + (by_{27}\sin\gamma + c_y z_{27})\,\hat{\mathbf{y}} + c_z z_{27}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXVII}$$

$$\mathbf{B_{28}} = x_{28}\,\mathbf{a}_1 + y_{28}\,\mathbf{a}_2 + z_{28}\,\mathbf{a}_3 = (ax_{28} + by_{28}\cos\gamma + c_x z_{28})\,\hat{\mathbf{x}} + (by_{28}\sin\gamma + c_y z_{28})\,\hat{\mathbf{y}} + c_z z_{28}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXVIII}$$

$$\mathbf{B_{29}} = x_{29}\,\mathbf{a}_1 + y_{29}\,\mathbf{a}_2 + z_{29}\,\mathbf{a}_3 = (ax_{29} + by_{29}\cos\gamma + c_x z_{29})\,\hat{\mathbf{x}} + (by_{29}\sin\gamma + c_y z_{29})\,\hat{\mathbf{y}} + c_z z_{29}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXIX}$$

$$\mathbf{B_{30}} = x_{30}\,\mathbf{a}_1 + y_{30}\,\mathbf{a}_2 + z_{30}\,\mathbf{a}_3 = (ax_{30} + by_{30}\cos\gamma + c_x z_{30})\,\hat{\mathbf{x}} + (by_{30}\sin\gamma + c_y z_{30})\,\hat{\mathbf{y}} + c_z z_{30}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXX}$$

$$\mathbf{B_{31}} = x_{31}\,\mathbf{a}_1 + y_{31}\,\mathbf{a}_2 + z_{31}\,\mathbf{a}_3 = (ax_{31} + by_{31}\cos\gamma + c_x z_{31})\,\hat{\mathbf{x}} + (by_{31}\sin\gamma + c_y z_{31})\,\hat{\mathbf{y}} + c_z z_{31}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXXI}$$

$$\mathbf{B_{32}} = x_{32}\,\mathbf{a}_1 + y_{32}\,\mathbf{a}_2 + z_{32}\,\mathbf{a}_3 = (ax_{32} + by_{32}\cos\gamma + c_x z_{32})\,\hat{\mathbf{x}} + (by_{32}\sin\gamma + c_y z_{32})\,\hat{\mathbf{y}} + c_z z_{32}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXXII}$$

$$\mathbf{B_{33}} = x_{33}\,\mathbf{a}_1 + y_{33}\,\mathbf{a}_2 + z_{33}\,\mathbf{a}_3 = (ax_{33} + by_{33}\cos\gamma + c_x z_{33})\,\hat{\mathbf{x}} + (by_{33}\sin\gamma + c_y z_{33})\,\hat{\mathbf{y}} + c_z z_{33}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXXIII}$$

$$\mathbf{B_{34}} = x_{34}\,\mathbf{a}_1 + y_{34}\,\mathbf{a}_2 + z_{34}\,\mathbf{a}_3 = (ax_{34} + by_{34}\cos\gamma + c_x z_{34})\,\hat{\mathbf{x}} + (by_{34}\sin\gamma + c_y z_{34})\,\hat{\mathbf{y}} + c_z z_{34}\,\hat{\mathbf{z}} \quad (1a) \quad \text{Al XXXIV}$$

$\mathbf{B_{35}} = x_{35}\,\mathbf{a}_1 + y_{35}\,\mathbf{a}_2 + z_{35}\,\mathbf{a}_3 = (ax_{35} + by_{35}\cos\gamma + c_x z_{35})\,\hat{\mathbf{x}} + (by_{35}\sin\gamma + c_y z_{35})\,\hat{\mathbf{y}} + c_z z_{35}\,\hat{\mathbf{z}}$ (1a) Al XXXV

$\mathbf{B_{36}} = x_{36}\,\mathbf{a}_1 + y_{36}\,\mathbf{a}_2 + z_{36}\,\mathbf{a}_3 = (ax_{36} + by_{36}\cos\gamma + c_x z_{36})\,\hat{\mathbf{x}} + (by_{36}\sin\gamma + c_y z_{36})\,\hat{\mathbf{y}} + c_z z_{36}\,\hat{\mathbf{z}}$ (1a) Al XXXVI

$\mathbf{B_{37}} = x_{37}\,\mathbf{a}_1 + y_{37}\,\mathbf{a}_2 + z_{37}\,\mathbf{a}_3 = (ax_{37} + by_{37}\cos\gamma + c_x z_{37})\,\hat{\mathbf{x}} + (by_{37}\sin\gamma + c_y z_{37})\,\hat{\mathbf{y}} + c_z z_{37}\,\hat{\mathbf{z}}$ (1a) Al XXXVII

$\mathbf{B_{38}} = x_{38}\,\mathbf{a}_1 + y_{38}\,\mathbf{a}_2 + z_{38}\,\mathbf{a}_3 = (ax_{38} + by_{38}\cos\gamma + c_x z_{38})\,\hat{\mathbf{x}} + (by_{38}\sin\gamma + c_y z_{38})\,\hat{\mathbf{y}} + c_z z_{38}\,\hat{\mathbf{z}}$ (1a) Al XXXVIII

$\mathbf{B_{39}} = x_{39}\,\mathbf{a}_1 + y_{39}\,\mathbf{a}_2 + z_{39}\,\mathbf{a}_3 = (ax_{39} + by_{39}\cos\gamma + c_x z_{39})\,\hat{\mathbf{x}} + (by_{39}\sin\gamma + c_y z_{39})\,\hat{\mathbf{y}} + c_z z_{39}\,\hat{\mathbf{z}}$ (1a) Al XXXIX

$\mathbf{B_{40}} = x_{40}\,\mathbf{a}_1 + y_{40}\,\mathbf{a}_2 + z_{40}\,\mathbf{a}_3 = (ax_{40} + by_{40}\cos\gamma + c_x z_{40})\,\hat{\mathbf{x}} + (by_{40}\sin\gamma + c_y z_{40})\,\hat{\mathbf{y}} + c_z z_{40}\,\hat{\mathbf{z}}$ (1a) Al XL

$\mathbf{B_{41}} = x_{41}\,\mathbf{a}_1 + y_{41}\,\mathbf{a}_2 + z_{41}\,\mathbf{a}_3 = (ax_{41} + by_{41}\cos\gamma + c_x z_{41})\,\hat{\mathbf{x}} + (by_{41}\sin\gamma + c_y z_{41})\,\hat{\mathbf{y}} + c_z z_{41}\,\hat{\mathbf{z}}$ (1a) O I

$\mathbf{B_{42}} = x_{42}\,\mathbf{a}_1 + y_{42}\,\mathbf{a}_2 + z_{42}\,\mathbf{a}_3 = (ax_{42} + by_{42}\cos\gamma + c_x z_{42})\,\hat{\mathbf{x}} + (by_{42}\sin\gamma + c_y z_{42})\,\hat{\mathbf{y}} + c_z z_{42}\,\hat{\mathbf{z}}$ (1a) O II

$\mathbf{B_{43}} = x_{43}\,\mathbf{a}_1 + y_{43}\,\mathbf{a}_2 + z_{43}\,\mathbf{a}_3 = (ax_{43} + by_{43}\cos\gamma + c_x z_{43})\,\hat{\mathbf{x}} + (by_{43}\sin\gamma + c_y z_{43})\,\hat{\mathbf{y}} + c_z z_{43}\,\hat{\mathbf{z}}$ (1a) O III

$\mathbf{B_{44}} = x_{44}\,\mathbf{a}_1 + y_{44}\,\mathbf{a}_2 + z_{44}\,\mathbf{a}_3 = (ax_{44} + by_{44}\cos\gamma + c_x z_{44})\,\hat{\mathbf{x}} + (by_{44}\sin\gamma + c_y z_{44})\,\hat{\mathbf{y}} + c_z z_{44}\,\hat{\mathbf{z}}$ (1a) O IV

$\mathbf{B_{45}} = x_{45}\,\mathbf{a}_1 + y_{45}\,\mathbf{a}_2 + z_{45}\,\mathbf{a}_3 = (ax_{45} + by_{45}\cos\gamma + c_x z_{45})\,\hat{\mathbf{x}} + (by_{45}\sin\gamma + c_y z_{45})\,\hat{\mathbf{y}} + c_z z_{45}\,\hat{\mathbf{z}}$ (1a) O V

$\mathbf{B_{46}} = x_{46}\,\mathbf{a}_1 + y_{46}\,\mathbf{a}_2 + z_{46}\,\mathbf{a}_3 = (ax_{46} + by_{46}\cos\gamma + c_x z_{46})\,\hat{\mathbf{x}} + (by_{46}\sin\gamma + c_y z_{46})\,\hat{\mathbf{y}} + c_z z_{46}\,\hat{\mathbf{z}}$ (1a) O VI

$\mathbf{B_{47}} = x_{47}\,\mathbf{a}_1 + y_{47}\,\mathbf{a}_2 + z_{47}\,\mathbf{a}_3 = (ax_{47} + by_{47}\cos\gamma + c_x z_{47})\,\hat{\mathbf{x}} + (by_{47}\sin\gamma + c_y z_{47})\,\hat{\mathbf{y}} + c_z z_{47}\,\hat{\mathbf{z}}$ (1a) O VII

$\mathbf{B_{48}} = x_{48}\,\mathbf{a}_1 + y_{48}\,\mathbf{a}_2 + z_{48}\,\mathbf{a}_3 = (ax_{48} + by_{48}\cos\gamma + c_x z_{48})\,\hat{\mathbf{x}} + (by_{48}\sin\gamma + c_y z_{48})\,\hat{\mathbf{y}} + c_z z_{48}\,\hat{\mathbf{z}}$ (1a) O VIII

$\mathbf{B_{49}} = x_{49}\,\mathbf{a}_1 + y_{49}\,\mathbf{a}_2 + z_{49}\,\mathbf{a}_3 = (ax_{49} + by_{49}\cos\gamma + c_x z_{49})\,\hat{\mathbf{x}} + (by_{49}\sin\gamma + c_y z_{49})\,\hat{\mathbf{y}} + c_z z_{49}\,\hat{\mathbf{z}}$ (1a) O IX

$\mathbf{B_{50}} = x_{50}\,\mathbf{a}_1 + y_{50}\,\mathbf{a}_2 + z_{50}\,\mathbf{a}_3 = (ax_{50} + by_{50}\cos\gamma + c_x z_{50})\,\hat{\mathbf{x}} + (by_{50}\sin\gamma + c_y z_{50})\,\hat{\mathbf{y}} + c_z z_{50}\,\hat{\mathbf{z}}$ (1a) O X

$\mathbf{B_{51}} = x_{51}\,\mathbf{a}_1 + y_{51}\,\mathbf{a}_2 + z_{51}\,\mathbf{a}_3 = (ax_{51} + by_{51}\cos\gamma + c_x z_{51})\,\hat{\mathbf{x}} + (by_{51}\sin\gamma + c_y z_{51})\,\hat{\mathbf{y}} + c_z z_{51}\,\hat{\mathbf{z}}$ (1a) O XI

$\mathbf{B_{52}} = x_{52}\,\mathbf{a}_1 + y_{52}\,\mathbf{a}_2 + z_{52}\,\mathbf{a}_3 = (ax_{52} + by_{52}\cos\gamma + c_x z_{52})\,\hat{\mathbf{x}} + (by_{52}\sin\gamma + c_y z_{52})\,\hat{\mathbf{y}} + c_z z_{52}\,\hat{\mathbf{z}}$ (1a) O XII

$\mathbf{B_{53}} = x_{53}\,\mathbf{a}_1 + y_{53}\,\mathbf{a}_2 + z_{53}\,\mathbf{a}_3 = (ax_{53} + by_{53}\cos\gamma + c_x z_{53})\,\hat{\mathbf{x}} + (by_{53}\sin\gamma + c_y z_{53})\,\hat{\mathbf{y}} + c_z z_{53}\,\hat{\mathbf{z}}$ (1a) O XIII

$\mathbf{B_{54}} = x_{54}\,\mathbf{a}_1 + y_{54}\,\mathbf{a}_2 + z_{54}\,\mathbf{a}_3 = (ax_{54} + by_{54}\cos\gamma + c_x z_{54})\,\hat{\mathbf{x}} + (by_{54}\sin\gamma + c_y z_{54})\,\hat{\mathbf{y}} + c_z z_{54}\,\hat{\mathbf{z}}$ (1a) O XIV

$\mathbf{B_{55}} = x_{55}\,\mathbf{a}_1 + y_{55}\,\mathbf{a}_2 + z_{55}\,\mathbf{a}_3 = (ax_{55} + by_{55}\cos\gamma + c_x z_{55})\,\hat{\mathbf{x}} + (by_{55}\sin\gamma + c_y z_{55})\,\hat{\mathbf{y}} + c_z z_{55}\,\hat{\mathbf{z}}$ (1a) O XV

$\mathbf{B_{56}} = x_{56}\,\mathbf{a}_1 + y_{56}\,\mathbf{a}_2 + z_{56}\,\mathbf{a}_3 = (ax_{56} + by_{56}\cos\gamma + c_x z_{56})\,\hat{\mathbf{x}} + (by_{56}\sin\gamma + c_y z_{56})\,\hat{\mathbf{y}} + c_z z_{56}\,\hat{\mathbf{z}}$ (1a) O XVI

$\mathbf{B_{57}} = x_{57}\,\mathbf{a}_1 + y_{57}\,\mathbf{a}_2 + z_{57}\,\mathbf{a}_3 = (ax_{57} + by_{57}\cos\gamma + c_x z_{57})\,\hat{\mathbf{x}} + (by_{57}\sin\gamma + c_y z_{57})\,\hat{\mathbf{y}} + c_z z_{57}\,\hat{\mathbf{z}}$ (1a) O XVII

$\mathbf{B_{58}} = x_{58}\,\mathbf{a}_1 + y_{58}\,\mathbf{a}_2 + z_{58}\,\mathbf{a}_3 = (ax_{58} + by_{58}\cos\gamma + c_x z_{58})\,\hat{\mathbf{x}} + (by_{58}\sin\gamma + c_y z_{58})\,\hat{\mathbf{y}} + c_z z_{58}\,\hat{\mathbf{z}}$ (1a) O XVIII

$$\mathbf{B_{59}} = x_{59}\,\mathbf{a}_1 + y_{59}\,\mathbf{a}_2 + z_{59}\,\mathbf{a}_3 = (ax_{59} + by_{59}\cos\gamma + c_x z_{59})\,\hat{\mathbf{x}} + (by_{59}\sin\gamma + c_y z_{59})\,\hat{\mathbf{y}} + c_z z_{59}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XIX}$$

$$\mathbf{B_{60}} = x_{60}\,\mathbf{a}_1 + y_{60}\,\mathbf{a}_2 + z_{60}\,\mathbf{a}_3 = (ax_{60} + by_{60}\cos\gamma + c_x z_{60})\,\hat{\mathbf{x}} + (by_{60}\sin\gamma + c_y z_{60})\,\hat{\mathbf{y}} + c_z z_{60}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XX}$$

$$\mathbf{B_{61}} = x_{61}\,\mathbf{a}_1 + y_{61}\,\mathbf{a}_2 + z_{61}\,\mathbf{a}_3 = (ax_{61} + by_{61}\cos\gamma + c_x z_{61})\,\hat{\mathbf{x}} + (by_{61}\sin\gamma + c_y z_{61})\,\hat{\mathbf{y}} + c_z z_{61}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXI}$$

$$\mathbf{B_{62}} = x_{62}\,\mathbf{a}_1 + y_{62}\,\mathbf{a}_2 + z_{62}\,\mathbf{a}_3 = (ax_{62} + by_{62}\cos\gamma + c_x z_{62})\,\hat{\mathbf{x}} + (by_{62}\sin\gamma + c_y z_{62})\,\hat{\mathbf{y}} + c_z z_{62}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXII}$$

$$\mathbf{B_{63}} = x_{63}\,\mathbf{a}_1 + y_{63}\,\mathbf{a}_2 + z_{63}\,\mathbf{a}_3 = (ax_{63} + by_{63}\cos\gamma + c_x z_{63})\,\hat{\mathbf{x}} + (by_{63}\sin\gamma + c_y z_{63})\,\hat{\mathbf{y}} + c_z z_{63}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXIII}$$

$$\mathbf{B_{64}} = x_{64}\,\mathbf{a}_1 + y_{64}\,\mathbf{a}_2 + z_{64}\,\mathbf{a}_3 = (ax_{64} + by_{64}\cos\gamma + c_x z_{64})\,\hat{\mathbf{x}} + (by_{64}\sin\gamma + c_y z_{64})\,\hat{\mathbf{y}} + c_z z_{64}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXIV}$$

$$\mathbf{B_{65}} = x_{65}\,\mathbf{a}_1 + y_{65}\,\mathbf{a}_2 + z_{65}\,\mathbf{a}_3 = (ax_{65} + by_{65}\cos\gamma + c_x z_{65})\,\hat{\mathbf{x}} + (by_{65}\sin\gamma + c_y z_{65})\,\hat{\mathbf{y}} + c_z z_{65}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXV}$$

$$\mathbf{B_{66}} = x_{66}\,\mathbf{a}_1 + y_{66}\,\mathbf{a}_2 + z_{66}\,\mathbf{a}_3 = (ax_{66} + by_{66}\cos\gamma + c_x z_{66})\,\hat{\mathbf{x}} + (by_{66}\sin\gamma + c_y z_{66})\,\hat{\mathbf{y}} + c_z z_{66}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXVI}$$

$$\mathbf{B_{67}} = x_{67}\,\mathbf{a}_1 + y_{67}\,\mathbf{a}_2 + z_{67}\,\mathbf{a}_3 = (ax_{67} + by_{67}\cos\gamma + c_x z_{67})\,\hat{\mathbf{x}} + (by_{67}\sin\gamma + c_y z_{67})\,\hat{\mathbf{y}} + c_z z_{67}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXVII}$$

$$\mathbf{B_{68}} = x_{68}\,\mathbf{a}_1 + y_{68}\,\mathbf{a}_2 + z_{68}\,\mathbf{a}_3 = (ax_{68} + by_{68}\cos\gamma + c_x z_{68})\,\hat{\mathbf{x}} + (by_{68}\sin\gamma + c_y z_{68})\,\hat{\mathbf{y}} + c_z z_{68}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXVIII}$$

$$\mathbf{B_{69}} = x_{69}\,\mathbf{a}_1 + y_{69}\,\mathbf{a}_2 + z_{69}\,\mathbf{a}_3 = (ax_{69} + by_{69}\cos\gamma + c_x z_{69})\,\hat{\mathbf{x}} + (by_{69}\sin\gamma + c_y z_{69})\,\hat{\mathbf{y}} + c_z z_{69}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXIX}$$

$$\mathbf{B_{70}} = x_{70}\,\mathbf{a}_1 + y_{70}\,\mathbf{a}_2 + z_{70}\,\mathbf{a}_3 = (ax_{70} + by_{70}\cos\gamma + c_x z_{70})\,\hat{\mathbf{x}} + (by_{70}\sin\gamma + c_y z_{70})\,\hat{\mathbf{y}} + c_z z_{70}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXX}$$

$$\mathbf{B_{71}} = x_{71}\,\mathbf{a}_1 + y_{71}\,\mathbf{a}_2 + z_{71}\,\mathbf{a}_3 = (ax_{71} + by_{71}\cos\gamma + c_x z_{71})\,\hat{\mathbf{x}} + (by_{71}\sin\gamma + c_y z_{71})\,\hat{\mathbf{y}} + c_z z_{71}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXI}$$

$$\mathbf{B_{72}} = x_{72}\,\mathbf{a}_1 + y_{72}\,\mathbf{a}_2 + z_{72}\,\mathbf{a}_3 = (ax_{72} + by_{72}\cos\gamma + c_x z_{72})\,\hat{\mathbf{x}} + (by_{72}\sin\gamma + c_y z_{72})\,\hat{\mathbf{y}} + c_z z_{72}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXII}$$

$$\mathbf{B_{73}} = x_{73}\,\mathbf{a}_1 + y_{73}\,\mathbf{a}_2 + z_{73}\,\mathbf{a}_3 = (ax_{73} + by_{73}\cos\gamma + c_x z_{73})\,\hat{\mathbf{x}} + (by_{73}\sin\gamma + c_y z_{73})\,\hat{\mathbf{y}} + c_z z_{73}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXIII}$$

$$\mathbf{B_{74}} = x_{74}\,\mathbf{a}_1 + y_{74}\,\mathbf{a}_2 + z_{74}\,\mathbf{a}_3 = (ax_{74} + by_{74}\cos\gamma + c_x z_{74})\,\hat{\mathbf{x}} + (by_{74}\sin\gamma + c_y z_{74})\,\hat{\mathbf{y}} + c_z z_{74}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXIV}$$

$$\mathbf{B_{75}} = x_{75}\,\mathbf{a}_1 + y_{75}\,\mathbf{a}_2 + z_{75}\,\mathbf{a}_3 = (ax_{75} + by_{75}\cos\gamma + c_x z_{75})\,\hat{\mathbf{x}} + (by_{75}\sin\gamma + c_y z_{75})\,\hat{\mathbf{y}} + c_z z_{75}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXV}$$

$$\mathbf{B_{76}} = x_{76}\,\mathbf{a}_1 + y_{76}\,\mathbf{a}_2 + z_{76}\,\mathbf{a}_3 = (ax_{76} + by_{76}\cos\gamma + c_x z_{76})\,\hat{\mathbf{x}} + (by_{76}\sin\gamma + c_y z_{76})\,\hat{\mathbf{y}} + c_z z_{76}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXVI}$$

$$\mathbf{B_{77}} = x_{77}\,\mathbf{a}_1 + y_{77}\,\mathbf{a}_2 + z_{77}\,\mathbf{a}_3 = (ax_{77} + by_{77}\cos\gamma + c_x z_{77})\,\hat{\mathbf{x}} + (by_{77}\sin\gamma + c_y z_{77})\,\hat{\mathbf{y}} + c_z z_{77}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXVII}$$

$$\mathbf{B_{78}} = x_{78}\,\mathbf{a}_1 + y_{78}\,\mathbf{a}_2 + z_{78}\,\mathbf{a}_3 = (ax_{78} + by_{78}\cos\gamma + c_x z_{78})\,\hat{\mathbf{x}} + (by_{78}\sin\gamma + c_y z_{78})\,\hat{\mathbf{y}} + c_z z_{78}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXVIII}$$

$$\mathbf{B_{79}} = x_{79}\,\mathbf{a}_1 + y_{79}\,\mathbf{a}_2 + z_{79}\,\mathbf{a}_3 = (ax_{79} + by_{79}\cos\gamma + c_x z_{79})\,\hat{\mathbf{x}} + (by_{79}\sin\gamma + c_y z_{79})\,\hat{\mathbf{y}} + c_z z_{79}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XXXIX}$$

$$\mathbf{B_{80}} = x_{80}\,\mathbf{a}_1 + y_{80}\,\mathbf{a}_2 + z_{80}\,\mathbf{a}_3 = (ax_{80} + by_{80}\cos\gamma + c_x z_{80})\,\hat{\mathbf{x}} + (by_{80}\sin\gamma + c_y z_{80})\,\hat{\mathbf{y}} + c_z z_{80}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XL}$$

$$\mathbf{B_{81}} = x_{81}\,\mathbf{a}_1 + y_{81}\,\mathbf{a}_2 + z_{81}\,\mathbf{a}_3 = (ax_{81} + by_{81}\cos\gamma + c_x z_{81})\,\hat{\mathbf{x}} + (by_{81}\sin\gamma + c_y z_{81})\,\hat{\mathbf{y}} + c_z z_{81}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLI}$$

$$\mathbf{B_{82}} = x_{82}\,\mathbf{a}_1 + y_{82}\,\mathbf{a}_2 + z_{82}\,\mathbf{a}_3 = (ax_{82} + by_{82}\cos\gamma + c_x z_{82})\,\hat{\mathbf{x}} + (by_{82}\sin\gamma + c_y z_{82})\,\hat{\mathbf{y}} + c_z z_{82}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLII}$$

$$\mathbf{B_{83}} = x_{83}\,\mathbf{a}_1 + y_{83}\,\mathbf{a}_2 + z_{83}\,\mathbf{a}_3 = (ax_{83} + by_{83}\cos\gamma + c_x z_{83})\,\hat{\mathbf{x}} + (by_{83}\sin\gamma + c_y z_{83})\,\hat{\mathbf{y}} + c_z z_{83}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLIII}$$

$$\mathbf{B_{84}} = x_{84}\,\mathbf{a}_1 + y_{84}\,\mathbf{a}_2 + z_{84}\,\mathbf{a}_3 = (ax_{84} + by_{84}\cos\gamma + c_x z_{84})\,\hat{\mathbf{x}} + (by_{84}\sin\gamma + c_y z_{84})\,\hat{\mathbf{y}} + c_z z_{84}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLIV}$$

$$\mathbf{B_{85}} = x_{85}\,\mathbf{a}_1 + y_{85}\,\mathbf{a}_2 + z_{85}\,\mathbf{a}_3 = (ax_{85} + by_{85}\cos\gamma + c_x z_{85})\,\hat{\mathbf{x}} + (by_{85}\sin\gamma + c_y z_{85})\,\hat{\mathbf{y}} + c_z z_{85}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLV}$$

$$\mathbf{B_{86}} = x_{86}\,\mathbf{a}_1 + y_{86}\,\mathbf{a}_2 + z_{86}\,\mathbf{a}_3 = (ax_{86} + by_{86}\cos\gamma + c_x z_{86})\,\hat{\mathbf{x}} + (by_{86}\sin\gamma + c_y z_{86})\,\hat{\mathbf{y}} + c_z z_{86}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLVI}$$

$$\mathbf{B_{87}} = x_{87}\,\mathbf{a}_1 + y_{87}\,\mathbf{a}_2 + z_{87}\,\mathbf{a}_3 = (ax_{87} + by_{87}\cos\gamma + c_x z_{87})\,\hat{\mathbf{x}} + (by_{87}\sin\gamma + c_y z_{87})\,\hat{\mathbf{y}} + c_z z_{87}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLVII}$$

$$\mathbf{B_{88}} = x_{88}\,\mathbf{a}_1 + y_{88}\,\mathbf{a}_2 + z_{88}\,\mathbf{a}_3 = (ax_{88} + by_{88}\cos\gamma + c_x z_{88})\,\hat{\mathbf{x}} + (by_{88}\sin\gamma + c_y z_{88})\,\hat{\mathbf{y}} + c_z z_{88}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLVIII}$$

$$\mathbf{B_{89}} = x_{89}\,\mathbf{a}_1 + y_{89}\,\mathbf{a}_2 + z_{89}\,\mathbf{a}_3 = (ax_{89} + by_{89}\cos\gamma + c_x z_{89})\,\hat{\mathbf{x}} + (by_{89}\sin\gamma + c_y z_{89})\,\hat{\mathbf{y}} + c_z z_{89}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XLIX}$$

$$\mathbf{B_{90}} = x_{90}\,\mathbf{a}_1 + y_{90}\,\mathbf{a}_2 + z_{90}\,\mathbf{a}_3 = (ax_{90} + by_{90}\cos\gamma + c_x z_{90})\,\hat{\mathbf{x}} + (by_{90}\sin\gamma + c_y z_{90})\,\hat{\mathbf{y}} + c_z z_{90}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O L}$$

$$\mathbf{B_{91}} = x_{91}\,\mathbf{a}_1 + y_{91}\,\mathbf{a}_2 + z_{91}\,\mathbf{a}_3 = (ax_{91} + by_{91}\cos\gamma + c_x z_{91})\,\hat{\mathbf{x}} + (by_{91}\sin\gamma + c_y z_{91})\,\hat{\mathbf{y}} + c_z z_{91}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LI}$$

$$\mathbf{B_{92}} = x_{92}\,\mathbf{a}_1 + y_{92}\,\mathbf{a}_2 + z_{92}\,\mathbf{a}_3 = (ax_{92} + by_{92}\cos\gamma + c_x z_{92})\,\hat{\mathbf{x}} + (by_{92}\sin\gamma + c_y z_{92})\,\hat{\mathbf{y}} + c_z z_{92}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LII}$$

$$\mathbf{B_{93}} = x_{93}\,\mathbf{a}_1 + y_{93}\,\mathbf{a}_2 + z_{93}\,\mathbf{a}_3 = (ax_{93} + by_{93}\cos\gamma + c_x z_{93})\,\hat{\mathbf{x}} + (by_{93}\sin\gamma + c_y z_{93})\,\hat{\mathbf{y}} + c_z z_{93}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LIII}$$

$$\mathbf{B_{94}} = x_{94}\,\mathbf{a}_1 + y_{94}\,\mathbf{a}_2 + z_{94}\,\mathbf{a}_3 = (ax_{94} + by_{94}\cos\gamma + c_x z_{94})\,\hat{\mathbf{x}} + (by_{94}\sin\gamma + c_y z_{94})\,\hat{\mathbf{y}} + c_z z_{94}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LIV}$$

$$\mathbf{B_{95}} = x_{95}\,\mathbf{a}_1 + y_{95}\,\mathbf{a}_2 + z_{95}\,\mathbf{a}_3 = (ax_{95} + by_{95}\cos\gamma + c_x z_{95})\,\hat{\mathbf{x}} + (by_{95}\sin\gamma + c_y z_{95})\,\hat{\mathbf{y}} + c_z z_{95}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LV}$$

$$\mathbf{B_{96}} = x_{96}\,\mathbf{a}_1 + y_{96}\,\mathbf{a}_2 + z_{96}\,\mathbf{a}_3 = (ax_{96} + by_{96}\cos\gamma + c_x z_{96})\,\hat{\mathbf{x}} + (by_{96}\sin\gamma + c_y z_{96})\,\hat{\mathbf{y}} + c_z z_{96}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LVI}$$

$$\mathbf{B_{97}} = x_{97}\,\mathbf{a}_1 + y_{97}\,\mathbf{a}_2 + z_{97}\,\mathbf{a}_3 = (ax_{97} + by_{97}\cos\gamma + c_x z_{97})\,\hat{\mathbf{x}} + (by_{97}\sin\gamma + c_y z_{97})\,\hat{\mathbf{y}} + c_z z_{97}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LVII}$$

$$\mathbf{B_{98}} = x_{98}\,\mathbf{a}_1 + y_{98}\,\mathbf{a}_2 + z_{98}\,\mathbf{a}_3 = (ax_{98} + by_{98}\cos\gamma + c_x z_{98})\,\hat{\mathbf{x}} + (by_{98}\sin\gamma + c_y z_{98})\,\hat{\mathbf{y}} + c_z z_{98}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LVIII}$$

$$\mathbf{B_{99}} = x_{99}\,\mathbf{a}_1 + y_{99}\,\mathbf{a}_2 + z_{99}\,\mathbf{a}_3 = (ax_{99} + by_{99}\cos\gamma + c_x z_{99})\,\hat{\mathbf{x}} + (by_{99}\sin\gamma + c_y z_{99})\,\hat{\mathbf{y}} + c_z z_{99}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LIX}$$

$$\mathbf{B_{100}} = x_{100}\,\mathbf{a}_1 + y_{100}\,\mathbf{a}_2 + z_{100}\,\mathbf{a}_3 = (ax_{100} + by_{100}\cos\gamma + c_x z_{100})\,\hat{\mathbf{x}} + (by_{100}\sin\gamma + c_y z_{100})\,\hat{\mathbf{y}} + c_z z_{100}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LX}$$

$$\mathbf{B_{101}} = x_{101}\,\mathbf{a}_1 + y_{101}\,\mathbf{a}_2 + z_{101}\,\mathbf{a}_3 = (ax_{101} + by_{101}\cos\gamma + c_x z_{101})\,\hat{\mathbf{x}} + (by_{101}\sin\gamma + c_y z_{101})\,\hat{\mathbf{y}} + c_z z_{101}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXI}$$

$$\mathbf{B_{102}} = x_{102}\,\mathbf{a}_1 + y_{102}\,\mathbf{a}_2 + z_{102}\,\mathbf{a}_3 = (ax_{102} + by_{102}\cos\gamma + c_x z_{102})\,\hat{\mathbf{x}} + (by_{102}\sin\gamma + c_y z_{102})\,\hat{\mathbf{y}} + c_z z_{102}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXII}$$

$$\mathbf{B_{103}} = x_{103}\,\mathbf{a}_1 + y_{103}\,\mathbf{a}_2 + z_{103}\,\mathbf{a}_3 = (ax_{103} + by_{103}\cos\gamma + c_x z_{103})\,\hat{\mathbf{x}} + (by_{103}\sin\gamma + c_y z_{103})\,\hat{\mathbf{y}} + c_z z_{103}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXIII}$$

$$\mathbf{B_{104}} = x_{104}\,\mathbf{a}_1 + y_{104}\,\mathbf{a}_2 + z_{104}\,\mathbf{a}_3 = (ax_{104} + by_{104}\cos\gamma + c_x z_{104})\,\hat{\mathbf{x}} + (by_{104}\sin\gamma + c_y z_{104})\,\hat{\mathbf{y}} + c_z z_{104}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXIV}$$

$$\mathbf{B_{105}} = x_{105}\,\mathbf{a}_1 + y_{105}\,\mathbf{a}_2 + z_{105}\,\mathbf{a}_3 = (ax_{105} + by_{105}\cos\gamma + c_x z_{105})\,\hat{\mathbf{x}} + (by_{105}\sin\gamma + c_y z_{105})\,\hat{\mathbf{y}} + c_z z_{105}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXV}$$

$$\mathbf{B_{106}} = x_{106}\,\mathbf{a}_1 + y_{106}\,\mathbf{a}_2 + z_{106}\,\mathbf{a}_3 = (ax_{106} + by_{106}\cos\gamma + c_x z_{106})\,\hat{\mathbf{x}} + (by_{106}\sin\gamma + c_y z_{106})\,\hat{\mathbf{y}} + c_z z_{106}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXVI}$$

$$\mathbf{B_{107}} = x_{107}\,\mathbf{a}_1 + y_{107}\,\mathbf{a}_2 + z_{107}\,\mathbf{a}_3 = (ax_{107} + by_{107}\cos\gamma + c_x z_{107})\,\hat{\mathbf{x}} + (by_{107}\sin\gamma + c_y z_{107})\,\hat{\mathbf{y}} + c_z z_{107}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXVII}$$

$$\mathbf{B_{108}} = x_{108}\,\mathbf{a}_1 + y_{108}\,\mathbf{a}_2 + z_{108}\,\mathbf{a}_3 = (ax_{108} + by_{108}\cos\gamma + c_x z_{108})\,\hat{\mathbf{x}} + (by_{108}\sin\gamma + c_y z_{108})\,\hat{\mathbf{y}} + c_z z_{108}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXVIII}$$

$$\mathbf{B_{109}} = x_{109}\,\mathbf{a}_1 + y_{109}\,\mathbf{a}_2 + z_{109}\,\mathbf{a}_3 = (ax_{109} + by_{109}\cos\gamma + c_x z_{109})\,\hat{\mathbf{x}} + (by_{109}\sin\gamma + c_y z_{109})\,\hat{\mathbf{y}} + c_z z_{109}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXIX}$$

$$\mathbf{B_{110}} = x_{110}\,\mathbf{a}_1 + y_{110}\,\mathbf{a}_2 + z_{110}\,\mathbf{a}_3 = (ax_{110} + by_{110}\cos\gamma + c_x z_{110})\,\hat{\mathbf{x}} + (by_{110}\sin\gamma + c_y z_{110})\,\hat{\mathbf{y}} + c_z z_{110}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXX}$$

$$\mathbf{B_{111}} = x_{111}\,\mathbf{a}_1 + y_{111}\,\mathbf{a}_2 + z_{111}\,\mathbf{a}_3 = (ax_{111} + by_{111}\cos\gamma + c_x z_{111})\,\hat{\mathbf{x}} + (by_{111}\sin\gamma + c_y z_{111})\,\hat{\mathbf{y}} + c_z z_{111}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXI}$$

$$\mathbf{B_{112}} = x_{112}\,\mathbf{a}_1 + y_{112}\,\mathbf{a}_2 + z_{112}\,\mathbf{a}_3 = (ax_{112} + by_{112}\cos\gamma + c_x z_{112})\,\hat{\mathbf{x}} + (by_{112}\sin\gamma + c_y z_{112})\,\hat{\mathbf{y}} + c_z z_{112}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXII}$$

$$\mathbf{B_{113}} = x_{113}\,\mathbf{a}_1 + y_{113}\,\mathbf{a}_2 + z_{113}\,\mathbf{a}_3 = (ax_{113} + by_{113}\cos\gamma + c_x z_{113})\,\hat{\mathbf{x}} + (by_{113}\sin\gamma + c_y z_{113})\,\hat{\mathbf{y}} + c_z z_{113}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXIII}$$

$$\mathbf{B_{114}} = x_{114}\,\mathbf{a}_1 + y_{114}\,\mathbf{a}_2 + z_{114}\,\mathbf{a}_3 = (ax_{114} + by_{114}\cos\gamma + c_x z_{114})\,\hat{\mathbf{x}} + (by_{114}\sin\gamma + c_y z_{114})\,\hat{\mathbf{y}} + c_z z_{114}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXIV}$$

$$\mathbf{B_{115}} = x_{115}\,\mathbf{a}_1 + y_{115}\,\mathbf{a}_2 + z_{115}\,\mathbf{a}_3 = (ax_{115} + by_{115}\cos\gamma + c_x z_{115})\,\hat{\mathbf{x}} + (by_{115}\sin\gamma + c_y z_{115})\,\hat{\mathbf{y}} + c_z z_{115}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXV}$$

$$\mathbf{B_{116}} = x_{116}\,\mathbf{a}_1 + y_{116}\,\mathbf{a}_2 + z_{116}\,\mathbf{a}_3 = (ax_{116} + by_{116}\cos\gamma + c_x z_{116})\,\hat{\mathbf{x}} + (by_{116}\sin\gamma + c_y z_{116})\,\hat{\mathbf{y}} + c_z z_{116}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXVI}$$

$$\mathbf{B_{117}} = x_{117}\,\mathbf{a}_1 + y_{117}\,\mathbf{a}_2 + z_{117}\,\mathbf{a}_3 = (ax_{117} + by_{117}\cos\gamma + c_x z_{117})\,\hat{\mathbf{x}} + (by_{117}\sin\gamma + c_y z_{117})\,\hat{\mathbf{y}} + c_z z_{117}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXVII}$$

$$\mathbf{B_{118}} = x_{118}\,\mathbf{a}_1 + y_{118}\,\mathbf{a}_2 + z_{118}\,\mathbf{a}_3 = (ax_{118} + by_{118}\cos\gamma + c_x z_{118})\,\hat{\mathbf{x}} + (by_{118}\sin\gamma + c_y z_{118})\,\hat{\mathbf{y}} + c_z z_{118}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXVIII}$$

$$\mathbf{B_{119}} = x_{119}\,\mathbf{a}_1 + y_{119}\,\mathbf{a}_2 + z_{119}\,\mathbf{a}_3 = (ax_{119} + by_{119}\cos\gamma + c_x z_{119})\,\hat{\mathbf{x}} + (by_{119}\sin\gamma + c_y z_{119})\,\hat{\mathbf{y}} + c_z z_{119}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXIX}$$

$$\mathbf{B_{120}} = x_{120}\,\mathbf{a}_1 + y_{120}\,\mathbf{a}_2 + z_{120}\,\mathbf{a}_3 = (ax_{120} + by_{120}\cos\gamma + c_x z_{120})\,\hat{\mathbf{x}} + (by_{120}\sin\gamma + c_y z_{120})\,\hat{\mathbf{y}} + c_z z_{120}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXX}$$

$$\mathbf{B_{121}} = x_{121}\,\mathbf{a}_1 + y_{121}\,\mathbf{a}_2 + z_{121}\,\mathbf{a}_3 = (ax_{121} + by_{121}\cos\gamma + c_x z_{121})\,\hat{\mathbf{x}} + (by_{121}\sin\gamma + c_y z_{121})\,\hat{\mathbf{y}} + c_z z_{121}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXI}$$

$$\mathbf{B_{122}} = x_{122}\,\mathbf{a}_1 + y_{122}\,\mathbf{a}_2 + z_{122}\,\mathbf{a}_3 = (ax_{122} + by_{122}\cos\gamma + c_x z_{122})\,\hat{\mathbf{x}} + (by_{122}\sin\gamma + c_y z_{122})\,\hat{\mathbf{y}} + c_z z_{122}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXII}$$

$$\mathbf{B_{123}} = x_{123}\,\mathbf{a}_1 + y_{123}\,\mathbf{a}_2 + z_{123}\,\mathbf{a}_3 = (ax_{123} + by_{123}\cos\gamma + c_x z_{123})\,\hat{\mathbf{x}} + (by_{123}\sin\gamma + c_y z_{123})\,\hat{\mathbf{y}} + c_z z_{123}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXIII}$$

$$\mathbf{B_{124}} = x_{124}\,\mathbf{a}_1 + y_{124}\,\mathbf{a}_2 + z_{124}\,\mathbf{a}_3 = (ax_{124} + by_{124}\cos\gamma + c_x z_{124})\,\hat{\mathbf{x}} + (by_{124}\sin\gamma + c_y z_{124})\,\hat{\mathbf{y}} + c_z z_{124}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXIV}$$

$$\mathbf{B_{125}} = x_{125}\,\mathbf{a}_1 + y_{125}\,\mathbf{a}_2 + z_{125}\,\mathbf{a}_3 = (ax_{125} + by_{125}\cos\gamma + c_x z_{125})\,\hat{\mathbf{x}} + (by_{125}\sin\gamma + c_y z_{125})\,\hat{\mathbf{y}} + c_z z_{125}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXV}$$

$$\mathbf{B_{126}} = x_{126}\,\mathbf{a}_1 + y_{126}\,\mathbf{a}_2 + z_{126}\,\mathbf{a}_3 = (ax_{126} + by_{126}\cos\gamma + c_x z_{126})\,\hat{\mathbf{x}} + (by_{126}\sin\gamma + c_y z_{126})\,\hat{\mathbf{y}} + c_z z_{126}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXVI}$$

$$\mathbf{B_{127}} = x_{127}\,\mathbf{a}_1 + y_{127}\,\mathbf{a}_2 + z_{127}\,\mathbf{a}_3 = (ax_{127} + by_{127}\cos\gamma + c_x z_{127})\,\hat{\mathbf{x}} + (by_{127}\sin\gamma + c_y z_{127})\,\hat{\mathbf{y}} + c_z z_{127}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXVII}$$

$$\mathbf{B_{128}} = x_{128}\,\mathbf{a}_1 + y_{128}\,\mathbf{a}_2 + z_{128}\,\mathbf{a}_3 = (ax_{128} + by_{128}\cos\gamma + c_x z_{128})\,\hat{\mathbf{x}} + (by_{128}\sin\gamma + c_y z_{128})\,\hat{\mathbf{y}} + c_z z_{128}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXVIII}$$

$$\mathbf{B_{129}} = x_{129}\,\mathbf{a}_1 + y_{129}\,\mathbf{a}_2 + z_{129}\,\mathbf{a}_3 = (ax_{129} + by_{129}\cos\gamma + c_x z_{129})\,\hat{\mathbf{x}} + (by_{129}\sin\gamma + c_y z_{129})\,\hat{\mathbf{y}} + c_z z_{129}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O LXXXIX}$$

$$\mathbf{B_{130}} = x_{130}\,\mathbf{a}_1 + y_{130}\,\mathbf{a}_2 + z_{130}\,\mathbf{a}_3 = (ax_{130} + by_{130}\cos\gamma + c_x z_{130})\,\hat{\mathbf{x}} + (by_{130}\sin\gamma + c_y z_{130})\,\hat{\mathbf{y}} + c_z z_{130}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XC}$$

$$\mathbf{B_{131}} = x_{131}\,\mathbf{a}_1 + y_{131}\,\mathbf{a}_2 + z_{131}\,\mathbf{a}_3 = (ax_{131} + by_{131}\cos\gamma + c_x z_{131})\,\hat{\mathbf{x}} + (by_{131}\sin\gamma + c_y z_{131})\,\hat{\mathbf{y}} + c_z z_{131}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCI}$$

$$\mathbf{B_{132}} = x_{132}\,\mathbf{a}_1 + y_{132}\,\mathbf{a}_2 + z_{132}\,\mathbf{a}_3 = (ax_{132} + by_{132}\cos\gamma + c_x z_{132})\,\hat{\mathbf{x}} + (by_{132}\sin\gamma + c_y z_{132})\,\hat{\mathbf{y}} + c_z z_{132}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCII}$$

$$\mathbf{B_{133}} = x_{133}\,\mathbf{a}_1 + y_{133}\,\mathbf{a}_2 + z_{133}\,\mathbf{a}_3 = (ax_{133} + by_{133}\cos\gamma + c_x z_{133})\,\hat{\mathbf{x}} + (by_{133}\sin\gamma + c_y z_{133})\,\hat{\mathbf{y}} + c_z z_{133}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCIII}$$

$$\mathbf{B_{134}} = x_{134}\,\mathbf{a}_1 + y_{134}\,\mathbf{a}_2 + z_{134}\,\mathbf{a}_3 = (ax_{134} + by_{134}\cos\gamma + c_x z_{134})\,\hat{\mathbf{x}} + (by_{134}\sin\gamma + c_y z_{134})\,\hat{\mathbf{y}} + c_z z_{134}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCIV}$$

$$\mathbf{B_{135}} = x_{135}\,\mathbf{a}_1 + y_{135}\,\mathbf{a}_2 + z_{135}\,\mathbf{a}_3 = (ax_{135} + by_{135}\cos\gamma + c_x z_{135})\,\hat{\mathbf{x}} + (by_{135}\sin\gamma + c_y z_{135})\,\hat{\mathbf{y}} + c_z z_{135}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCV}$$

$$\mathbf{B_{136}} = x_{136}\,\mathbf{a}_1 + y_{136}\,\mathbf{a}_2 + z_{136}\,\mathbf{a}_3 = (ax_{136} + by_{136}\cos\gamma + c_x z_{136})\,\hat{\mathbf{x}} + (by_{136}\sin\gamma + c_y z_{136})\,\hat{\mathbf{y}} + c_z z_{136}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCVI}$$

$$\mathbf{B_{137}} = x_{137}\,\mathbf{a}_1 + y_{137}\,\mathbf{a}_2 + z_{137}\,\mathbf{a}_3 = (ax_{137} + by_{137}\cos\gamma + c_x z_{137})\,\hat{\mathbf{x}} + (by_{137}\sin\gamma + c_y z_{137})\,\hat{\mathbf{y}} + c_z z_{137}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCVII}$$

$$\mathbf{B_{138}} = x_{138}\,\mathbf{a}_1 + y_{138}\,\mathbf{a}_2 + z_{138}\,\mathbf{a}_3 = (ax_{138} + by_{138}\cos\gamma + c_x z_{138})\,\hat{\mathbf{x}} + (by_{138}\sin\gamma + c_y z_{138})\,\hat{\mathbf{y}} + c_z z_{138}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCVIII}$$

$$\mathbf{B_{139}} = x_{139}\,\mathbf{a}_1 + y_{139}\,\mathbf{a}_2 + z_{139}\,\mathbf{a}_3 = (ax_{139} + by_{139}\cos\gamma + c_x z_{139})\,\hat{\mathbf{x}} + (by_{139}\sin\gamma + c_y z_{139})\,\hat{\mathbf{y}} + c_z z_{139}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O XCIX}$$

$$\mathbf{B_{140}} = x_{140}\,\mathbf{a}_1 + y_{140}\,\mathbf{a}_2 + z_{140}\,\mathbf{a}_3 = (ax_{140} + by_{140}\cos\gamma + c_x z_{140})\,\hat{\mathbf{x}} + (by_{140}\sin\gamma + c_y z_{140})\,\hat{\mathbf{y}} + c_z z_{140}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O C}$$

$$\mathbf{B_{141}} = x_{141}\,\mathbf{a}_1 + y_{141}\,\mathbf{a}_2 + z_{141}\,\mathbf{a}_3 = (ax_{141} + by_{141}\cos\gamma + c_x z_{141})\,\hat{\mathbf{x}} + (by_{141}\sin\gamma + c_y z_{141})\,\hat{\mathbf{y}} + c_z z_{141}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CI}$$

$$\mathbf{B_{142}} = x_{142}\,\mathbf{a}_1 + y_{142}\,\mathbf{a}_2 + z_{142}\,\mathbf{a}_3 = (ax_{142} + by_{142}\cos\gamma + c_x z_{142})\,\hat{\mathbf{x}} + (by_{142}\sin\gamma + c_y z_{142})\,\hat{\mathbf{y}} + c_z z_{142}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CII}$$

$$\mathbf{B_{143}} = x_{143}\,\mathbf{a}_1 + y_{143}\,\mathbf{a}_2 + z_{143}\,\mathbf{a}_3 = (ax_{143} + by_{143}\cos\gamma + c_x z_{143})\,\hat{\mathbf{x}} + (by_{143}\sin\gamma + c_y z_{143})\,\hat{\mathbf{y}} + c_z z_{143}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CIII}$$

$$\mathbf{B_{144}} = x_{144}\,\mathbf{a}_1 + y_{144}\,\mathbf{a}_2 + z_{144}\,\mathbf{a}_3 = (ax_{144} + by_{144}\cos\gamma + c_x z_{144})\,\hat{\mathbf{x}} + (by_{144}\sin\gamma + c_y z_{144})\,\hat{\mathbf{y}} + c_z z_{144}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CIV}$$

$$\mathbf{B_{145}} = x_{145}\,\mathbf{a}_1 + y_{145}\,\mathbf{a}_2 + z_{145}\,\mathbf{a}_3 = (ax_{145} + by_{145}\cos\gamma + c_x z_{145})\,\hat{\mathbf{x}} + (by_{145}\sin\gamma + c_y z_{145})\,\hat{\mathbf{y}} + c_z z_{145}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CV}$$

$$\mathbf{B_{146}} = x_{146}\,\mathbf{a}_1 + y_{146}\,\mathbf{a}_2 + z_{146}\,\mathbf{a}_3 = (ax_{146} + by_{146}\cos\gamma + c_x z_{146})\,\hat{\mathbf{x}} + (by_{146}\sin\gamma + c_y z_{146})\,\hat{\mathbf{y}} + c_z z_{146}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CVI}$$

$$\mathbf{B_{147}} = x_{147}\,\mathbf{a}_1 + y_{147}\,\mathbf{a}_2 + z_{147}\,\mathbf{a}_3 = (ax_{147} + by_{147}\cos\gamma + c_x z_{147})\,\hat{\mathbf{x}} + (by_{147}\sin\gamma + c_y z_{147})\,\hat{\mathbf{y}} + c_z z_{147}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CVII}$$

$$\mathbf{B_{148}} = x_{148}\,\mathbf{a}_1 + y_{148}\,\mathbf{a}_2 + z_{148}\,\mathbf{a}_3 = (ax_{148} + by_{148}\cos\gamma + c_x z_{148})\,\hat{\mathbf{x}} + (by_{148}\sin\gamma + c_y z_{148})\,\hat{\mathbf{y}} + c_z z_{148}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CVIII}$$

$$\mathbf{B_{149}} = x_{149}\,\mathbf{a}_1 + y_{149}\,\mathbf{a}_2 + z_{149}\,\mathbf{a}_3 = (ax_{149} + by_{149}\cos\gamma + c_x z_{149})\,\hat{\mathbf{x}} + (by_{149}\sin\gamma + c_y z_{149})\,\hat{\mathbf{y}} + c_z z_{149}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CIX}$$

$$\mathbf{B_{150}} = x_{150}\,\mathbf{a}_1 + y_{150}\,\mathbf{a}_2 + z_{150}\,\mathbf{a}_3 = (ax_{150} + by_{150}\cos\gamma + c_x z_{150})\,\hat{\mathbf{x}} + (by_{150}\sin\gamma + c_y z_{150})\,\hat{\mathbf{y}} + c_z z_{150}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CX}$$

$$\mathbf{B_{151}} = x_{151}\,\mathbf{a}_1 + y_{151}\,\mathbf{a}_2 + z_{151}\,\mathbf{a}_3 = (ax_{151} + by_{151}\cos\gamma + c_x z_{151})\,\hat{\mathbf{x}} + (by_{151}\sin\gamma + c_y z_{151})\,\hat{\mathbf{y}} + c_z z_{151}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CXI}$$

$$\mathbf{B_{152}} = x_{152}\,\mathbf{a}_1 + y_{152}\,\mathbf{a}_2 + z_{152}\,\mathbf{a}_3 = (ax_{152} + by_{152}\cos\gamma + c_x z_{152})\,\hat{\mathbf{x}} + (by_{152}\sin\gamma + c_y z_{152})\,\hat{\mathbf{y}} + c_z z_{152}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CXII}$$

$$\mathbf{B_{153}} = x_{153}\,\mathbf{a}_1 + y_{153}\,\mathbf{a}_2 + z_{153}\,\mathbf{a}_3 = (ax_{153} + by_{153}\cos\gamma + c_x z_{153})\,\hat{\mathbf{x}} + (by_{153}\sin\gamma + c_y z_{153})\,\hat{\mathbf{y}} + c_z z_{153}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CXIII}$$

$$\mathbf{B_{154}} = x_{154}\,\mathbf{a}_1 + y_{154}\,\mathbf{a}_2 + z_{154}\,\mathbf{a}_3 = (ax_{154} + by_{154}\cos\gamma + c_x z_{154})\,\hat{\mathbf{x}} + (by_{154}\sin\gamma + c_y z_{154})\,\hat{\mathbf{y}} + c_z z_{154}\,\hat{\mathbf{z}} \quad (1a) \quad \text{O CXIV}$$

$$\mathbf{B_{155}} = x_{155}\,\mathbf{a}_1 + y_{155}\,\mathbf{a}_2 + z_{155}\,\mathbf{a}_3 = (ax_{155} + by_{155}\cos\gamma + c_x z_{155})\,\hat{\mathbf{x}} + (by_{155}\sin\gamma + c_y z_{155})\,\hat{\mathbf{y}} + c_z z_{155}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXV}$$

$$\mathbf{B_{156}} = x_{156}\,\mathbf{a}_1 + y_{156}\,\mathbf{a}_2 + z_{156}\,\mathbf{a}_3 = (ax_{156} + by_{156}\cos\gamma + c_x z_{156})\,\hat{\mathbf{x}} + (by_{156}\sin\gamma + c_y z_{156})\,\hat{\mathbf{y}} + c_z z_{156}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXVI}$$

$$\mathbf{B_{157}} = x_{157}\,\mathbf{a}_1 + y_{157}\,\mathbf{a}_2 + z_{157}\,\mathbf{a}_3 = (ax_{157} + by_{157}\cos\gamma + c_x z_{157})\,\hat{\mathbf{x}} + (by_{157}\sin\gamma + c_y z_{157})\,\hat{\mathbf{y}} + c_z z_{157}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXVII}$$

$$\mathbf{B_{158}} = x_{158}\,\mathbf{a}_1 + y_{158}\,\mathbf{a}_2 + z_{158}\,\mathbf{a}_3 = (ax_{158} + by_{158}\cos\gamma + c_x z_{158})\,\hat{\mathbf{x}} + (by_{158}\sin\gamma + c_y z_{158})\,\hat{\mathbf{y}} + c_z z_{158}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXVIII}$$

$$\mathbf{B_{159}} = x_{159}\,\mathbf{a}_1 + y_{159}\,\mathbf{a}_2 + z_{159}\,\mathbf{a}_3 = (ax_{159} + by_{159}\cos\gamma + c_x z_{159})\,\hat{\mathbf{x}} + (by_{159}\sin\gamma + c_y z_{159})\,\hat{\mathbf{y}} + c_z z_{159}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXIX}$$

$$\mathbf{B_{160}} = x_{160}\,\mathbf{a}_1 + y_{160}\,\mathbf{a}_2 + z_{160}\,\mathbf{a}_3 = (ax_{160} + by_{160}\cos\gamma + c_x z_{160})\,\hat{\mathbf{x}} + (by_{160}\sin\gamma + c_y z_{160})\,\hat{\mathbf{y}} + c_z z_{160}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXX}$$

$$\mathbf{B_{161}} = x_{161}\,\mathbf{a}_1 + y_{161}\,\mathbf{a}_2 + z_{161}\,\mathbf{a}_3 = (ax_{161} + by_{161}\cos\gamma + c_x z_{161})\,\hat{\mathbf{x}} + (by_{161}\sin\gamma + c_y z_{161})\,\hat{\mathbf{y}} + c_z z_{161}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXI}$$

$$\mathbf{B_{162}} = x_{162}\,\mathbf{a}_1 + y_{162}\,\mathbf{a}_2 + z_{162}\,\mathbf{a}_3 = (ax_{162} + by_{162}\cos\gamma + c_x z_{162})\,\hat{\mathbf{x}} + (by_{162}\sin\gamma + c_y z_{162})\,\hat{\mathbf{y}} + c_z z_{162}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXII}$$

$$\mathbf{B_{163}} = x_{163}\,\mathbf{a}_1 + y_{163}\,\mathbf{a}_2 + z_{163}\,\mathbf{a}_3 = (ax_{163} + by_{163}\cos\gamma + c_x z_{163})\,\hat{\mathbf{x}} + (by_{163}\sin\gamma + c_y z_{163})\,\hat{\mathbf{y}} + c_z z_{163}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXIII}$$

$$\mathbf{B_{164}} = x_{164}\,\mathbf{a}_1 + y_{164}\,\mathbf{a}_2 + z_{164}\,\mathbf{a}_3 = (ax_{164} + by_{164}\cos\gamma + c_x z_{164})\,\hat{\mathbf{x}} + (by_{164}\sin\gamma + c_y z_{164})\,\hat{\mathbf{y}} + c_z z_{164}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXIV}$$

$$\mathbf{B_{165}} = x_{165}\,\mathbf{a}_1 + y_{165}\,\mathbf{a}_2 + z_{165}\,\mathbf{a}_3 = (ax_{165} + by_{165}\cos\gamma + c_x z_{165})\,\hat{\mathbf{x}} + (by_{165}\sin\gamma + c_y z_{165})\,\hat{\mathbf{y}} + c_z z_{165}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXV}$$

$$\mathbf{B_{166}} = x_{166}\,\mathbf{a}_1 + y_{166}\,\mathbf{a}_2 + z_{166}\,\mathbf{a}_3 = (ax_{166} + by_{166}\cos\gamma + c_x z_{166})\,\hat{\mathbf{x}} + (by_{166}\sin\gamma + c_y z_{166})\,\hat{\mathbf{y}} + c_z z_{166}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXVI}$$

$$\mathbf{B_{167}} = x_{167}\,\mathbf{a}_1 + y_{167}\,\mathbf{a}_2 + z_{167}\,\mathbf{a}_3 = (ax_{167} + by_{167}\cos\gamma + c_x z_{167})\,\hat{\mathbf{x}} + (by_{167}\sin\gamma + c_y z_{167})\,\hat{\mathbf{y}} + c_z z_{167}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXVII}$$

$$\mathbf{B_{168}} = x_{168}\,\mathbf{a}_1 + y_{168}\,\mathbf{a}_2 + z_{168}\,\mathbf{a}_3 = (ax_{168} + by_{168}\cos\gamma + c_x z_{168})\,\hat{\mathbf{x}} + (by_{168}\sin\gamma + c_y z_{168})\,\hat{\mathbf{y}} + c_z z_{168}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXVIII}$$

$$\mathbf{B_{169}} = x_{169}\,\mathbf{a}_1 + y_{169}\,\mathbf{a}_2 + z_{169}\,\mathbf{a}_3 = (ax_{169} + by_{169}\cos\gamma + c_x z_{169})\,\hat{\mathbf{x}} + (by_{169}\sin\gamma + c_y z_{169})\,\hat{\mathbf{y}} + c_z z_{169}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXIX}$$

$$\mathbf{B_{170}} = x_{170}\,\mathbf{a}_1 + y_{170}\,\mathbf{a}_2 + z_{170}\,\mathbf{a}_3 = (ax_{170} + by_{170}\cos\gamma + c_x z_{170})\,\hat{\mathbf{x}} + (by_{170}\sin\gamma + c_y z_{170})\,\hat{\mathbf{y}} + c_z z_{170}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXX}$$

$$\mathbf{B_{171}} = x_{171}\,\mathbf{a}_1 + y_{171}\,\mathbf{a}_2 + z_{171}\,\mathbf{a}_3 = (ax_{171} + by_{171}\cos\gamma + c_x z_{171})\,\hat{\mathbf{x}} + (by_{171}\sin\gamma + c_y z_{171})\,\hat{\mathbf{y}} + c_z z_{171}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXI}$$

$$\mathbf{B_{172}} = x_{172}\,\mathbf{a}_1 + y_{172}\,\mathbf{a}_2 + z_{172}\,\mathbf{a}_3 = (ax_{172} + by_{172}\cos\gamma + c_x z_{172})\,\hat{\mathbf{x}} + (by_{172}\sin\gamma + c_y z_{172})\,\hat{\mathbf{y}} + c_z z_{172}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXII}$$

$$\mathbf{B_{173}} = x_{173}\,\mathbf{a}_1 + y_{173}\,\mathbf{a}_2 + z_{173}\,\mathbf{a}_3 = (ax_{173} + by_{173}\cos\gamma + c_x z_{173})\,\hat{\mathbf{x}} + (by_{173}\sin\gamma + c_y z_{173})\,\hat{\mathbf{y}} + c_z z_{173}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXIII}$$

$$\mathbf{B_{174}} = x_{174}\,\mathbf{a}_1 + y_{174}\,\mathbf{a}_2 + z_{174}\,\mathbf{a}_3 = (ax_{174} + by_{174}\cos\gamma + c_x z_{174})\,\hat{\mathbf{x}} + (by_{174}\sin\gamma + c_y z_{174})\,\hat{\mathbf{y}} + c_z z_{174}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXIV}$$

$$\mathbf{B_{175}} = x_{175}\,\mathbf{a}_1 + y_{175}\,\mathbf{a}_2 + z_{175}\,\mathbf{a}_3 = (ax_{175} + by_{175}\cos\gamma + c_x z_{175})\,\hat{\mathbf{x}} + (by_{175}\sin\gamma + c_y z_{175})\,\hat{\mathbf{y}} + c_z z_{175}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXV}$$

$$\mathbf{B_{176}} = x_{176}\,\mathbf{a}_1 + y_{176}\,\mathbf{a}_2 + z_{176}\,\mathbf{a}_3 = (ax_{176} + by_{176}\cos\gamma + c_x z_{176})\,\hat{\mathbf{x}} + (by_{176}\sin\gamma + c_y z_{176})\,\hat{\mathbf{y}} + c_z z_{176}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXVI}$$

$$\mathbf{B_{177}} = x_{177}\,\mathbf{a}_1 + y_{177}\,\mathbf{a}_2 + z_{177}\,\mathbf{a}_3 = (ax_{177} + by_{177}\cos\gamma + c_x z_{177})\,\hat{\mathbf{x}} + (by_{177}\sin\gamma + c_y z_{177})\,\hat{\mathbf{y}} + c_z z_{177}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXVII}$$

$$\mathbf{B_{178}} = x_{178}\,\mathbf{a}_1 + y_{178}\,\mathbf{a}_2 + z_{178}\,\mathbf{a}_3 = (ax_{178} + by_{178}\cos\gamma + c_x z_{178})\,\hat{\mathbf{x}} + (by_{178}\sin\gamma + c_y z_{178})\,\hat{\mathbf{y}} + c_z z_{178}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXVIII}$$

$$\mathbf{B_{179}} = x_{179}\,\mathbf{a}_1 + y_{179}\,\mathbf{a}_2 + z_{179}\,\mathbf{a}_3 = (ax_{179} + by_{179}\cos\gamma + c_x z_{179})\,\hat{\mathbf{x}} + (by_{179}\sin\gamma + c_y z_{179})\,\hat{\mathbf{y}} + c_z z_{179}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXXXIX}$$

$$\mathbf{B_{180}} = x_{180}\,\mathbf{a}_1 + y_{180}\,\mathbf{a}_2 + z_{180}\,\mathbf{a}_3 = (ax_{180} + by_{180}\cos\gamma + c_x z_{180})\,\hat{\mathbf{x}} + (by_{180}\sin\gamma + c_y z_{180})\,\hat{\mathbf{y}} + c_z z_{180}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXL}$$

$$\mathbf{B_{181}} = x_{181}\,\mathbf{a}_1 + y_{181}\,\mathbf{a}_2 + z_{181}\,\mathbf{a}_3 = (ax_{181} + by_{181}\cos\gamma + c_x z_{181})\,\hat{\mathbf{x}} + (by_{181}\sin\gamma + c_y z_{181})\,\hat{\mathbf{y}} + c_z z_{181}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLI}$$

$$\mathbf{B_{182}} = x_{182}\,\mathbf{a}_1 + y_{182}\,\mathbf{a}_2 + z_{182}\,\mathbf{a}_3 = (ax_{182} + by_{182}\cos\gamma + c_x z_{182})\,\hat{\mathbf{x}} + (by_{182}\sin\gamma + c_y z_{182})\,\hat{\mathbf{y}} + c_z z_{182}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLII}$$

$$\mathbf{B_{183}} = x_{183}\,\mathbf{a}_1 + y_{183}\,\mathbf{a}_2 + z_{183}\,\mathbf{a}_3 = (ax_{183} + by_{183}\cos\gamma + c_x z_{183})\,\hat{\mathbf{x}} + (by_{183}\sin\gamma + c_y z_{183})\,\hat{\mathbf{y}} + c_z z_{183}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLIII}$$

$$\mathbf{B_{184}} = x_{184}\,\mathbf{a}_1 + y_{184}\,\mathbf{a}_2 + z_{184}\,\mathbf{a}_3 = (ax_{184} + by_{184}\cos\gamma + c_x z_{184})\,\hat{\mathbf{x}} + (by_{184}\sin\gamma + c_y z_{184})\,\hat{\mathbf{y}} + c_z z_{184}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLIV}$$

$$\mathbf{B_{185}} = x_{185}\,\mathbf{a}_1 + y_{185}\,\mathbf{a}_2 + z_{185}\,\mathbf{a}_3 = (ax_{185} + by_{185}\cos\gamma + c_x z_{185})\,\hat{\mathbf{x}} + (by_{185}\sin\gamma + c_y z_{185})\,\hat{\mathbf{y}} + c_z z_{185}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLV}$$

$$\mathbf{B_{186}} = x_{186}\,\mathbf{a}_1 + y_{186}\,\mathbf{a}_2 + z_{186}\,\mathbf{a}_3 = (ax_{186} + by_{186}\cos\gamma + c_x z_{186})\,\hat{\mathbf{x}} + (by_{186}\sin\gamma + c_y z_{186})\,\hat{\mathbf{y}} + c_z z_{186}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLVI}$$

$$\mathbf{B_{187}} = x_{187}\,\mathbf{a}_1 + y_{187}\,\mathbf{a}_2 + z_{187}\,\mathbf{a}_3 = (ax_{187} + by_{187}\cos\gamma + c_x z_{187})\,\hat{\mathbf{x}} + (by_{187}\sin\gamma + c_y z_{187})\,\hat{\mathbf{y}} + c_z z_{187}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLVII}$$

$$\mathbf{B_{188}} = x_{188}\,\mathbf{a}_1 + y_{188}\,\mathbf{a}_2 + z_{188}\,\mathbf{a}_3 = (ax_{188} + by_{188}\cos\gamma + c_x z_{188})\,\hat{\mathbf{x}} + (by_{188}\sin\gamma + c_y z_{188})\,\hat{\mathbf{y}} + c_z z_{188}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLVIII}$$

$$\mathbf{B_{189}} = x_{189}\,\mathbf{a}_1 + y_{189}\,\mathbf{a}_2 + z_{189}\,\mathbf{a}_3 = (ax_{189} + by_{189}\cos\gamma + c_x z_{189})\,\hat{\mathbf{x}} + (by_{189}\sin\gamma + c_y z_{189})\,\hat{\mathbf{y}} + c_z z_{189}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CXLIX}$$

$$\mathbf{B_{190}} = x_{190}\,\mathbf{a}_1 + y_{190}\,\mathbf{a}_2 + z_{190}\,\mathbf{a}_3 = (ax_{190} + by_{190}\cos\gamma + c_x z_{190})\,\hat{\mathbf{x}} + (by_{190}\sin\gamma + c_y z_{190})\,\hat{\mathbf{y}} + c_z z_{190}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CL}$$

$$\mathbf{B_{191}} = x_{191}\,\mathbf{a}_1 + y_{191}\,\mathbf{a}_2 + z_{191}\,\mathbf{a}_3 = (ax_{191} + by_{191}\cos\gamma + c_x z_{191})\,\hat{\mathbf{x}} + (by_{191}\sin\gamma + c_y z_{191})\,\hat{\mathbf{y}} + c_z z_{191}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLI}$$

$$\mathbf{B_{192}} = x_{192}\,\mathbf{a}_1 + y_{192}\,\mathbf{a}_2 + z_{192}\,\mathbf{a}_3 = (ax_{192} + by_{192}\cos\gamma + c_x z_{192})\,\hat{\mathbf{x}} + (by_{192}\sin\gamma + c_y z_{192})\,\hat{\mathbf{y}} + c_z z_{192}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLII}$$

$$\mathbf{B_{193}} = x_{193}\,\mathbf{a}_1 + y_{193}\,\mathbf{a}_2 + z_{193}\,\mathbf{a}_3 = (ax_{193} + by_{193}\cos\gamma + c_x z_{193})\,\hat{\mathbf{x}} + (by_{193}\sin\gamma + c_y z_{193})\,\hat{\mathbf{y}} + c_z z_{193}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLIII}$$

$$\mathbf{B_{194}} = x_{194}\,\mathbf{a}_1 + y_{194}\,\mathbf{a}_2 + z_{194}\,\mathbf{a}_3 = (ax_{194} + by_{194}\cos\gamma + c_x z_{194})\,\hat{\mathbf{x}} + (by_{194}\sin\gamma + c_y z_{194})\,\hat{\mathbf{y}} + c_z z_{194}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLIV}$$

$$\mathbf{B_{195}} = x_{195}\,\mathbf{a}_1 + y_{195}\,\mathbf{a}_2 + z_{195}\,\mathbf{a}_3 = (ax_{195} + by_{195}\cos\gamma + c_x z_{195})\,\hat{\mathbf{x}} + (by_{195}\sin\gamma + c_y z_{195})\,\hat{\mathbf{y}} + c_z z_{195}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLV}$$

$$\mathbf{B_{196}} = x_{196}\,\mathbf{a}_1 + y_{196}\,\mathbf{a}_2 + z_{196}\,\mathbf{a}_3 = (ax_{196} + by_{196}\cos\gamma + c_x z_{196})\,\hat{\mathbf{x}} + (by_{196}\sin\gamma + c_y z_{196})\,\hat{\mathbf{y}} + c_z z_{196}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLVI}$$

$$\mathbf{B_{197}} = x_{197}\,\mathbf{a}_1 + y_{197}\,\mathbf{a}_2 + z_{197}\,\mathbf{a}_3 = (ax_{197} + by_{197}\cos\gamma + c_x z_{197})\,\hat{\mathbf{x}} + (by_{197}\sin\gamma + c_y z_{197})\,\hat{\mathbf{y}} + c_z z_{197}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLVII}$$

$$\mathbf{B_{198}} = x_{198}\,\mathbf{a}_1 + y_{198}\,\mathbf{a}_2 + z_{198}\,\mathbf{a}_3 = (ax_{198} + by_{198}\cos\gamma + c_x z_{198})\,\hat{\mathbf{x}} + (by_{198}\sin\gamma + c_y z_{198})\,\hat{\mathbf{y}} + c_z z_{198}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLVIII}$$

$$\mathbf{B_{199}} = x_{199}\,\mathbf{a}_1 + y_{199}\,\mathbf{a}_2 + z_{199}\,\mathbf{a}_3 = (ax_{199} + by_{199}\cos\gamma + c_x z_{199})\,\hat{\mathbf{x}} + (by_{199}\sin\gamma + c_y z_{199})\,\hat{\mathbf{y}} + c_z z_{199}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLIX}$$

$$\mathbf{B_{200}} = x_{200}\,\mathbf{a}_1 + y_{200}\,\mathbf{a}_2 + z_{200}\,\mathbf{a}_3 = (ax_{200} + by_{200}\cos\gamma + c_x z_{200})\,\hat{\mathbf{x}} + (by_{200}\sin\gamma + c_y z_{200})\,\hat{\mathbf{y}} + c_z z_{200}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{O CLX}$$

$$\mathbf{B_{201}} = x_{201}\,\mathbf{a}_1 + y_{201}\,\mathbf{a}_2 + z_{201}\,\mathbf{a}_3 = (ax_{201} + by_{201}\cos\gamma + c_x z_{201})\,\hat{\mathbf{x}} + (by_{201}\sin\gamma + c_y z_{201})\,\hat{\mathbf{y}} + c_z z_{201}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{P I}$$

$$\mathbf{B_{202}} = x_{202}\,\mathbf{a}_1 + y_{202}\,\mathbf{a}_2 + z_{202}\,\mathbf{a}_3 = (ax_{202} + by_{202}\cos\gamma + c_x z_{202})\,\hat{\mathbf{x}} + (by_{202}\sin\gamma + c_y z_{202})\,\hat{\mathbf{y}} + c_z z_{202}\,\hat{\mathbf{z}} \quad \text{(1a)} \quad \text{P II}$$

$$\mathbf{B_{203}} = x_{203}\,\mathbf{a}_1 + y_{203}\,\mathbf{a}_2 + z_{203}\,\mathbf{a}_3 = (ax_{203} + by_{203}\cos\gamma + c_x z_{203})\,\hat{\mathbf{x}} + (by_{203}\sin\gamma + c_y z_{203})\,\hat{\mathbf{y}} + c_z z_{203}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P III}$$

$$\mathbf{B_{204}} = x_{204}\,\mathbf{a}_1 + y_{204}\,\mathbf{a}_2 + z_{204}\,\mathbf{a}_3 = (ax_{204} + by_{204}\cos\gamma + c_x z_{204})\,\hat{\mathbf{x}} + (by_{204}\sin\gamma + c_y z_{204})\,\hat{\mathbf{y}} + c_z z_{204}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P IV}$$

$$\mathbf{B_{205}} = x_{205}\,\mathbf{a}_1 + y_{205}\,\mathbf{a}_2 + z_{205}\,\mathbf{a}_3 = (ax_{205} + by_{205}\cos\gamma + c_x z_{205})\,\hat{\mathbf{x}} + (by_{205}\sin\gamma + c_y z_{205})\,\hat{\mathbf{y}} + c_z z_{205}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P V}$$

$$\mathbf{B_{206}} = x_{206}\,\mathbf{a}_1 + y_{206}\,\mathbf{a}_2 + z_{206}\,\mathbf{a}_3 = (ax_{206} + by_{206}\cos\gamma + c_x z_{206})\,\hat{\mathbf{x}} + (by_{206}\sin\gamma + c_y z_{206})\,\hat{\mathbf{y}} + c_z z_{206}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P VI}$$

$$\mathbf{B_{207}} = x_{207}\,\mathbf{a}_1 + y_{207}\,\mathbf{a}_2 + z_{207}\,\mathbf{a}_3 = (ax_{207} + by_{207}\cos\gamma + c_x z_{207})\,\hat{\mathbf{x}} + (by_{207}\sin\gamma + c_y z_{207})\,\hat{\mathbf{y}} + c_z z_{207}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P VII}$$

$$\mathbf{B_{208}} = x_{208}\,\mathbf{a}_1 + y_{208}\,\mathbf{a}_2 + z_{208}\,\mathbf{a}_3 = (ax_{208} + by_{208}\cos\gamma + c_x z_{208})\,\hat{\mathbf{x}} + (by_{208}\sin\gamma + c_y z_{208})\,\hat{\mathbf{y}} + c_z z_{208}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P VIII}$$

$$\mathbf{B_{209}} = x_{209}\,\mathbf{a}_1 + y_{209}\,\mathbf{a}_2 + z_{209}\,\mathbf{a}_3 = (ax_{209} + by_{209}\cos\gamma + c_x z_{209})\,\hat{\mathbf{x}} + (by_{209}\sin\gamma + c_y z_{209})\,\hat{\mathbf{y}} + c_z z_{209}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P IX}$$

$$\mathbf{B_{210}} = x_{210}\,\mathbf{a}_1 + y_{210}\,\mathbf{a}_2 + z_{210}\,\mathbf{a}_3 = (ax_{210} + by_{210}\cos\gamma + c_x z_{210})\,\hat{\mathbf{x}} + (by_{210}\sin\gamma + c_y z_{210})\,\hat{\mathbf{y}} + c_z z_{210}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P X}$$

$$\mathbf{B_{211}} = x_{211}\,\mathbf{a}_1 + y_{211}\,\mathbf{a}_2 + z_{211}\,\mathbf{a}_3 = (ax_{211} + by_{211}\cos\gamma + c_x z_{211})\,\hat{\mathbf{x}} + (by_{211}\sin\gamma + c_y z_{211})\,\hat{\mathbf{y}} + c_z z_{211}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XI}$$

$$\mathbf{B_{212}} = x_{212}\,\mathbf{a}_1 + y_{212}\,\mathbf{a}_2 + z_{212}\,\mathbf{a}_3 = (ax_{212} + by_{212}\cos\gamma + c_x z_{212})\,\hat{\mathbf{x}} + (by_{212}\sin\gamma + c_y z_{212})\,\hat{\mathbf{y}} + c_z z_{212}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XII}$$

$$\mathbf{B_{213}} = x_{213}\,\mathbf{a}_1 + y_{213}\,\mathbf{a}_2 + z_{213}\,\mathbf{a}_3 = (ax_{213} + by_{213}\cos\gamma + c_x z_{213})\,\hat{\mathbf{x}} + (by_{213}\sin\gamma + c_y z_{213})\,\hat{\mathbf{y}} + c_z z_{213}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XIII}$$

$$\mathbf{B_{214}} = x_{214}\,\mathbf{a}_1 + y_{214}\,\mathbf{a}_2 + z_{214}\,\mathbf{a}_3 = (ax_{214} + by_{214}\cos\gamma + c_x z_{214})\,\hat{\mathbf{x}} + (by_{214}\sin\gamma + c_y z_{214})\,\hat{\mathbf{y}} + c_z z_{214}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XIV}$$

$$\mathbf{B_{215}} = x_{215}\,\mathbf{a}_1 + y_{215}\,\mathbf{a}_2 + z_{215}\,\mathbf{a}_3 = (ax_{215} + by_{215}\cos\gamma + c_x z_{215})\,\hat{\mathbf{x}} + (by_{215}\sin\gamma + c_y z_{215})\,\hat{\mathbf{y}} + c_z z_{215}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XV}$$

$$\mathbf{B_{216}} = x_{216}\,\mathbf{a}_1 + y_{216}\,\mathbf{a}_2 + z_{216}\,\mathbf{a}_3 = (ax_{216} + by_{216}\cos\gamma + c_x z_{216})\,\hat{\mathbf{x}} + (by_{216}\sin\gamma + c_y z_{216})\,\hat{\mathbf{y}} + c_z z_{216}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XVI}$$

$$\mathbf{B_{217}} = x_{217}\,\mathbf{a}_1 + y_{217}\,\mathbf{a}_2 + z_{217}\,\mathbf{a}_3 = (ax_{217} + by_{217}\cos\gamma + c_x z_{217})\,\hat{\mathbf{x}} + (by_{217}\sin\gamma + c_y z_{217})\,\hat{\mathbf{y}} + c_z z_{217}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XVII}$$

$$\mathbf{B_{218}} = x_{218}\,\mathbf{a}_1 + y_{218}\,\mathbf{a}_2 + z_{218}\,\mathbf{a}_3 = (ax_{218} + by_{218}\cos\gamma + c_x z_{218})\,\hat{\mathbf{x}} + (by_{218}\sin\gamma + c_y z_{218})\,\hat{\mathbf{y}} + c_z z_{218}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XVIII}$$

$$\mathbf{B_{219}} = x_{219}\,\mathbf{a}_1 + y_{219}\,\mathbf{a}_2 + z_{219}\,\mathbf{a}_3 = (ax_{219} + by_{219}\cos\gamma + c_x z_{219})\,\hat{\mathbf{x}} + (by_{219}\sin\gamma + c_y z_{219})\,\hat{\mathbf{y}} + c_z z_{219}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XIX}$$

$$\mathbf{B_{220}} = x_{220}\,\mathbf{a}_1 + y_{220}\,\mathbf{a}_2 + z_{220}\,\mathbf{a}_3 = (ax_{220} + by_{220}\cos\gamma + c_x z_{220})\,\hat{\mathbf{x}} + (by_{220}\sin\gamma + c_y z_{220})\,\hat{\mathbf{y}} + c_z z_{220}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XX}$$

$$\mathbf{B_{221}} = x_{221}\,\mathbf{a}_1 + y_{221}\,\mathbf{a}_2 + z_{221}\,\mathbf{a}_3 = (ax_{221} + by_{221}\cos\gamma + c_x z_{221})\,\hat{\mathbf{x}} + (by_{221}\sin\gamma + c_y z_{221})\,\hat{\mathbf{y}} + c_z z_{221}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXI}$$

$$\mathbf{B_{222}} = x_{222}\,\mathbf{a}_1 + y_{222}\,\mathbf{a}_2 + z_{222}\,\mathbf{a}_3 = (ax_{222} + by_{222}\cos\gamma + c_x z_{222})\,\hat{\mathbf{x}} + (by_{222}\sin\gamma + c_y z_{222})\,\hat{\mathbf{y}} + c_z z_{222}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXII}$$

$$\mathbf{B_{223}} = x_{223}\,\mathbf{a}_1 + y_{223}\,\mathbf{a}_2 + z_{223}\,\mathbf{a}_3 = (ax_{223} + by_{223}\cos\gamma + c_x z_{223})\,\hat{\mathbf{x}} + (by_{223}\sin\gamma + c_y z_{223})\,\hat{\mathbf{y}} + c_z z_{223}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXIII}$$

$$\mathbf{B_{224}} = x_{224}\,\mathbf{a}_1 + y_{224}\,\mathbf{a}_2 + z_{224}\,\mathbf{a}_3 = (ax_{224} + by_{224}\cos\gamma + c_x z_{224})\,\hat{\mathbf{x}} + (by_{224}\sin\gamma + c_y z_{224})\,\hat{\mathbf{y}} + c_z z_{224}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXIV}$$

$$\mathbf{B_{225}} = x_{225}\,\mathbf{a}_1 + y_{225}\,\mathbf{a}_2 + z_{225}\,\mathbf{a}_3 = (ax_{225} + by_{225}\cos\gamma + c_x z_{225})\,\hat{\mathbf{x}} + (by_{225}\sin\gamma + c_y z_{225})\,\hat{\mathbf{y}} + c_z z_{225}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXV}$$

$$\mathbf{B_{226}} = x_{226}\,\mathbf{a}_1 + y_{226}\,\mathbf{a}_2 + z_{226}\,\mathbf{a}_3 = (ax_{226} + by_{226}\cos\gamma + c_x z_{226})\,\hat{\mathbf{x}} + (by_{226}\sin\gamma + c_y z_{226})\,\hat{\mathbf{y}} + c_z z_{226}\,\hat{\mathbf{z}} \quad (1a) \quad \text{P XXVI}$$

$$\mathbf{B_{227}} = x_{227}\,\mathbf{a}_1 + y_{227}\,\mathbf{a}_2 + z_{227}\,\mathbf{a}_3 = (ax_{227} + by_{227}\cos\gamma + c_x z_{227})\,\hat{\mathbf{x}} + (by_{227}\sin\gamma + c_y z_{227})\,\hat{\mathbf{y}} + c_z z_{227}\,\hat{\mathbf{z}}$$ (1a) P XXVII

$$\mathbf{B_{228}} = x_{228}\,\mathbf{a}_1 + y_{228}\,\mathbf{a}_2 + z_{228}\,\mathbf{a}_3 = (ax_{228} + by_{228}\cos\gamma + c_x z_{228})\,\hat{\mathbf{x}} + (by_{228}\sin\gamma + c_y z_{228})\,\hat{\mathbf{y}} + c_z z_{228}\,\hat{\mathbf{z}}$$ (1a) P XXVIII

$$\mathbf{B_{229}} = x_{229}\,\mathbf{a}_1 + y_{229}\,\mathbf{a}_2 + z_{229}\,\mathbf{a}_3 = (ax_{229} + by_{229}\cos\gamma + c_x z_{229})\,\hat{\mathbf{x}} + (by_{229}\sin\gamma + c_y z_{229})\,\hat{\mathbf{y}} + c_z z_{229}\,\hat{\mathbf{z}}$$ (1a) P XXIX

$$\mathbf{B_{230}} = x_{230}\,\mathbf{a}_1 + y_{230}\,\mathbf{a}_2 + z_{230}\,\mathbf{a}_3 = (ax_{230} + by_{230}\cos\gamma + c_x z_{230})\,\hat{\mathbf{x}} + (by_{230}\sin\gamma + c_y z_{230})\,\hat{\mathbf{y}} + c_z z_{230}\,\hat{\mathbf{z}}$$ (1a) P XXX

$$\mathbf{B_{231}} = x_{231}\,\mathbf{a}_1 + y_{231}\,\mathbf{a}_2 + z_{231}\,\mathbf{a}_3 = (ax_{231} + by_{231}\cos\gamma + c_x z_{231})\,\hat{\mathbf{x}} + (by_{231}\sin\gamma + c_y z_{231})\,\hat{\mathbf{y}} + c_z z_{231}\,\hat{\mathbf{z}}$$ (1a) P XXXI

$$\mathbf{B_{232}} = x_{232}\,\mathbf{a}_1 + y_{232}\,\mathbf{a}_2 + z_{232}\,\mathbf{a}_3 = (ax_{232} + by_{232}\cos\gamma + c_x z_{232})\,\hat{\mathbf{x}} + (by_{232}\sin\gamma + c_y z_{232})\,\hat{\mathbf{y}} + c_z z_{232}\,\hat{\mathbf{z}}$$ (1a) P XXXII

$$\mathbf{B_{233}} = x_{233}\,\mathbf{a}_1 + y_{233}\,\mathbf{a}_2 + z_{233}\,\mathbf{a}_3 = (ax_{233} + by_{233}\cos\gamma + c_x z_{233})\,\hat{\mathbf{x}} + (by_{233}\sin\gamma + c_y z_{233})\,\hat{\mathbf{y}} + c_z z_{233}\,\hat{\mathbf{z}}$$ (1a) P XXXIII

$$\mathbf{B_{234}} = x_{234}\,\mathbf{a}_1 + y_{234}\,\mathbf{a}_2 + z_{234}\,\mathbf{a}_3 = (ax_{234} + by_{234}\cos\gamma + c_x z_{234})\,\hat{\mathbf{x}} + (by_{234}\sin\gamma + c_y z_{234})\,\hat{\mathbf{y}} + c_z z_{234}\,\hat{\mathbf{z}}$$ (1a) P XXXIV

$$\mathbf{B_{235}} = x_{235}\,\mathbf{a}_1 + y_{235}\,\mathbf{a}_2 + z_{235}\,\mathbf{a}_3 = (ax_{235} + by_{235}\cos\gamma + c_x z_{235})\,\hat{\mathbf{x}} + (by_{235}\sin\gamma + c_y z_{235})\,\hat{\mathbf{y}} + c_z z_{235}\,\hat{\mathbf{z}}$$ (1a) P XXXV

$$\mathbf{B_{236}} = x_{236}\,\mathbf{a}_1 + y_{236}\,\mathbf{a}_2 + z_{236}\,\mathbf{a}_3 = (ax_{236} + by_{236}\cos\gamma + c_x z_{236})\,\hat{\mathbf{x}} + (by_{236}\sin\gamma + c_y z_{236})\,\hat{\mathbf{y}} + c_z z_{236}\,\hat{\mathbf{z}}$$ (1a) P XXXVI

$$\mathbf{B_{237}} = x_{237}\,\mathbf{a}_1 + y_{237}\,\mathbf{a}_2 + z_{237}\,\mathbf{a}_3 = (ax_{237} + by_{237}\cos\gamma + c_x z_{237})\,\hat{\mathbf{x}} + (by_{237}\sin\gamma + c_y z_{237})\,\hat{\mathbf{y}} + c_z z_{237}\,\hat{\mathbf{z}}$$ (1a) P XXXVII

$$\mathbf{B_{238}} = x_{238}\,\mathbf{a}_1 + y_{238}\,\mathbf{a}_2 + z_{238}\,\mathbf{a}_3 = (ax_{238} + by_{238}\cos\gamma + c_x z_{238})\,\hat{\mathbf{x}} + (by_{238}\sin\gamma + c_y z_{238})\,\hat{\mathbf{y}} + c_z z_{238}\,\hat{\mathbf{z}}$$ (1a) P XXXVIII

$$\mathbf{B_{239}} = x_{239}\,\mathbf{a}_1 + y_{239}\,\mathbf{a}_2 + z_{239}\,\mathbf{a}_3 = (ax_{239} + by_{239}\cos\gamma + c_x z_{239})\,\hat{\mathbf{x}} + (by_{239}\sin\gamma + c_y z_{239})\,\hat{\mathbf{y}} + c_z z_{239}\,\hat{\mathbf{z}}$$ (1a) P XXXIX

$$\mathbf{B_{240}} = x_{240}\,\mathbf{a}_1 + y_{240}\,\mathbf{a}_2 + z_{240}\,\mathbf{a}_3 = (ax_{240} + by_{240}\cos\gamma + c_x z_{240})\,\hat{\mathbf{x}} + (by_{240}\sin\gamma + c_y z_{240})\,\hat{\mathbf{y}} + c_z z_{240}\,\hat{\mathbf{z}}$$ (1a) P XL

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