

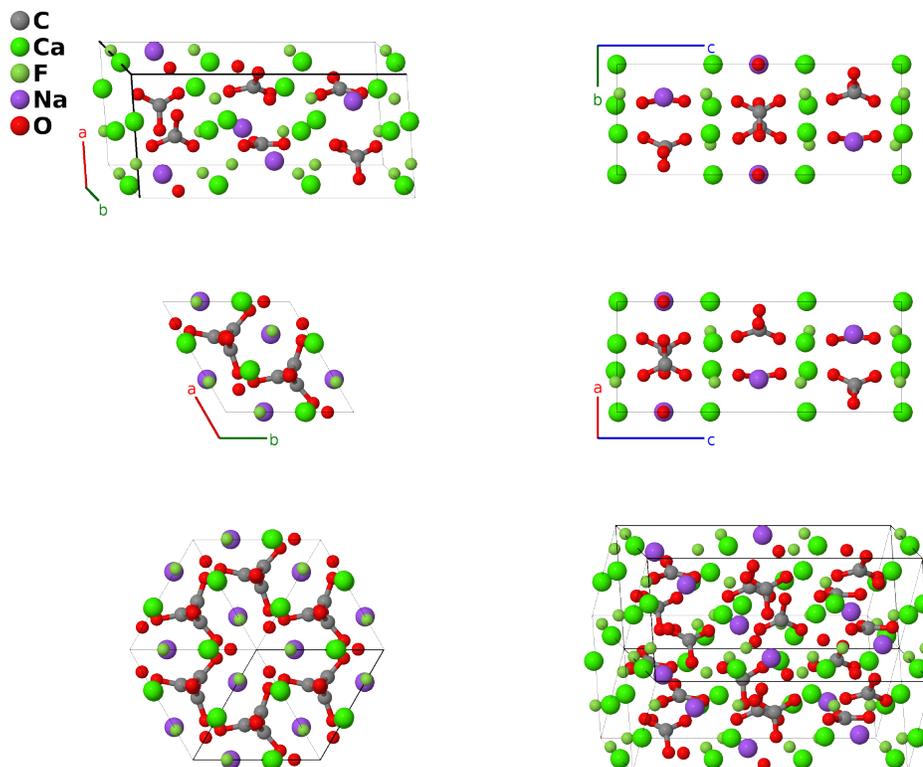
# Sheldrickite ( $\text{NaCa}_3[\text{CO}_3]_2\text{F}_3[\text{H}_2\text{O}]$ ) Structure: A2B3C3DE7\_hP48\_145\_2a\_3a\_3a\_a\_7a-001

This structure originally had the label A2B3C3DE7\_hP48\_145\_2a\_3a\_3a\_a\_7a. Calls to that address will be redirected here.

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<https://aflow.org/p/3V4Q>

[https://aflow.org/p/A2B3C3DE7\\_hP48\\_145\\_2a\\_3a\\_3a\\_a\\_7a-001](https://aflow.org/p/A2B3C3DE7_hP48_145_2a_3a_3a_a_7a-001)



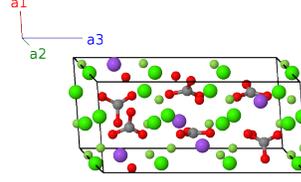
Prototype	$\text{C}_2\text{Ca}_3\text{F}_3\text{NaO}_7$
AFLOW prototype label	A2B3C3DE7_hP48_145_2a_3a_3a_a_7a-001
Mineral name	sheldrickite
ICSD	89257
Pearson symbol	hP48
Space group number	145
Space group symbol	$P3_2$
AFLOW prototype command	<pre>aflow --proto=A2B3C3DE7_hP48_145_2a_3a_3a_a_7a-001       --params=a, c/a, x1, y1, z1, x2, y2, z2, x3, y3, z3, x4, y4, z4, x5, y5, z5, x6, y6, z6, x7, y7, z7,       x8, y8, z8, x9, y9, z9, x10, y10, z10, x11, y11, z11, x12, y12, z12, x13, y13, z13, x14, y14, z14, x15, y15, z15,       x16, y16, z16</pre>

- The H<sub>2</sub>O molecule is centered on one of the oxygen (3a) sites; however it is only listed as O in this prototype.
- This structure can also be found in the enantiomorphic space group  $P3_1$  #144.

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### Trigonal (Hexagonal) primitive vectors

$$\begin{aligned}\mathbf{a}_1 &= \frac{1}{2}a \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a \hat{\mathbf{y}} \\ \mathbf{a}_2 &= \frac{1}{2}a \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}a \hat{\mathbf{y}} \\ \mathbf{a}_3 &= c \hat{\mathbf{z}}\end{aligned}$$




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### Basis vectors

	Lattice coordinates	Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B}_1$	$x_1 \mathbf{a}_1 + y_1 \mathbf{a}_2 + z_1 \mathbf{a}_3$	$= \frac{1}{2}a(x_1 + y_1) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_1 - y_1) \hat{\mathbf{y}} + cz_1 \hat{\mathbf{z}}$	(3a)	C I
$\mathbf{B}_2$	$-y_1 \mathbf{a}_1 + (x_1 - y_1) \mathbf{a}_2 + (z_1 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_1 - 2y_1) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_1 \hat{\mathbf{y}} + \frac{1}{3}c(3z_1 + 2) \hat{\mathbf{z}}$	(3a)	C I
$\mathbf{B}_3$	$-(x_1 - y_1) \mathbf{a}_1 - x_1 \mathbf{a}_2 + (z_1 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_1 - y_1) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_1 \hat{\mathbf{y}} + c(z_1 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	C I
$\mathbf{B}_4$	$x_2 \mathbf{a}_1 + y_2 \mathbf{a}_2 + z_2 \mathbf{a}_3$	$= \frac{1}{2}a(x_2 + y_2) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_2 - y_2) \hat{\mathbf{y}} + cz_2 \hat{\mathbf{z}}$	(3a)	C II
$\mathbf{B}_5$	$-y_2 \mathbf{a}_1 + (x_2 - y_2) \mathbf{a}_2 + (z_2 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_2 - 2y_2) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_2 \hat{\mathbf{y}} + \frac{1}{3}c(3z_2 + 2) \hat{\mathbf{z}}$	(3a)	C II
$\mathbf{B}_6$	$-(x_2 - y_2) \mathbf{a}_1 - x_2 \mathbf{a}_2 + (z_2 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_2 - y_2) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_2 \hat{\mathbf{y}} + c(z_2 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	C II
$\mathbf{B}_7$	$x_3 \mathbf{a}_1 + y_3 \mathbf{a}_2 + z_3 \mathbf{a}_3$	$= \frac{1}{2}a(x_3 + y_3) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_3 - y_3) \hat{\mathbf{y}} + cz_3 \hat{\mathbf{z}}$	(3a)	Ca I
$\mathbf{B}_8$	$-y_3 \mathbf{a}_1 + (x_3 - y_3) \mathbf{a}_2 + (z_3 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_3 - 2y_3) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_3 \hat{\mathbf{y}} + \frac{1}{3}c(3z_3 + 2) \hat{\mathbf{z}}$	(3a)	Ca I
$\mathbf{B}_9$	$-(x_3 - y_3) \mathbf{a}_1 - x_3 \mathbf{a}_2 + (z_3 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_3 - y_3) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_3 \hat{\mathbf{y}} + c(z_3 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	Ca I
$\mathbf{B}_{10}$	$x_4 \mathbf{a}_1 + y_4 \mathbf{a}_2 + z_4 \mathbf{a}_3$	$= \frac{1}{2}a(x_4 + y_4) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_4 - y_4) \hat{\mathbf{y}} + cz_4 \hat{\mathbf{z}}$	(3a)	Ca II
$\mathbf{B}_{11}$	$-y_4 \mathbf{a}_1 + (x_4 - y_4) \mathbf{a}_2 + (z_4 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_4 - 2y_4) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_4 \hat{\mathbf{y}} + \frac{1}{3}c(3z_4 + 2) \hat{\mathbf{z}}$	(3a)	Ca II
$\mathbf{B}_{12}$	$-(x_4 - y_4) \mathbf{a}_1 - x_4 \mathbf{a}_2 + (z_4 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_4 - y_4) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_4 \hat{\mathbf{y}} + c(z_4 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	Ca II
$\mathbf{B}_{13}$	$x_5 \mathbf{a}_1 + y_5 \mathbf{a}_2 + z_5 \mathbf{a}_3$	$= \frac{1}{2}a(x_5 + y_5) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_5 - y_5) \hat{\mathbf{y}} + cz_5 \hat{\mathbf{z}}$	(3a)	Ca III
$\mathbf{B}_{14}$	$-y_5 \mathbf{a}_1 + (x_5 - y_5) \mathbf{a}_2 + (z_5 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_5 - 2y_5) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_5 \hat{\mathbf{y}} + \frac{1}{3}c(3z_5 + 2) \hat{\mathbf{z}}$	(3a)	Ca III
$\mathbf{B}_{15}$	$-(x_5 - y_5) \mathbf{a}_1 - x_5 \mathbf{a}_2 + (z_5 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_5 - y_5) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_5 \hat{\mathbf{y}} + c(z_5 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	Ca III
$\mathbf{B}_{16}$	$x_6 \mathbf{a}_1 + y_6 \mathbf{a}_2 + z_6 \mathbf{a}_3$	$= \frac{1}{2}a(x_6 + y_6) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_6 - y_6) \hat{\mathbf{y}} + cz_6 \hat{\mathbf{z}}$	(3a)	F I
$\mathbf{B}_{17}$	$-y_6 \mathbf{a}_1 + (x_6 - y_6) \mathbf{a}_2 + (z_6 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_6 - 2y_6) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_6 \hat{\mathbf{y}} + \frac{1}{3}c(3z_6 + 2) \hat{\mathbf{z}}$	(3a)	F I
$\mathbf{B}_{18}$	$-(x_6 - y_6) \mathbf{a}_1 - x_6 \mathbf{a}_2 + (z_6 + \frac{1}{3}) \mathbf{a}_3$	$= -\frac{1}{2}a(2x_6 - y_6) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_6 \hat{\mathbf{y}} + c(z_6 + \frac{1}{3}) \hat{\mathbf{z}}$	(3a)	F I
$\mathbf{B}_{19}$	$x_7 \mathbf{a}_1 + y_7 \mathbf{a}_2 + z_7 \mathbf{a}_3$	$= \frac{1}{2}a(x_7 + y_7) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_7 - y_7) \hat{\mathbf{y}} + cz_7 \hat{\mathbf{z}}$	(3a)	F II
$\mathbf{B}_{20}$	$-y_7 \mathbf{a}_1 + (x_7 - y_7) \mathbf{a}_2 + (z_7 + \frac{2}{3}) \mathbf{a}_3$	$= \frac{1}{2}a(x_7 - 2y_7) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_7 \hat{\mathbf{y}} + \frac{1}{3}c(3z_7 + 2) \hat{\mathbf{z}}$	(3a)	F II

$$\begin{aligned}
\mathbf{B}_{21} &= -(x_7 - y_7) \mathbf{a}_1 - x_7 \mathbf{a}_2 + (z_7 + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_7 - y_7) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_7 \hat{\mathbf{y}} + c(z_7 + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{F II} \\
\mathbf{B}_{22} &= x_8 \mathbf{a}_1 + y_8 \mathbf{a}_2 + z_8 \mathbf{a}_3 &= \frac{1}{2}a(x_8 + y_8) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_8 - y_8) \hat{\mathbf{y}} + cz_8 \hat{\mathbf{z}} &(3a) & \text{F III} \\
\mathbf{B}_{23} &= -y_8 \mathbf{a}_1 + (x_8 - y_8) \mathbf{a}_2 + (z_8 + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_8 - 2y_8) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_8 \hat{\mathbf{y}} + \frac{1}{3}c(3z_8 + 2) \hat{\mathbf{z}} &(3a) & \text{F III} \\
\mathbf{B}_{24} &= -(x_8 - y_8) \mathbf{a}_1 - x_8 \mathbf{a}_2 + (z_8 + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_8 - y_8) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_8 \hat{\mathbf{y}} + c(z_8 + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{F III} \\
\mathbf{B}_{25} &= x_9 \mathbf{a}_1 + y_9 \mathbf{a}_2 + z_9 \mathbf{a}_3 &= \frac{1}{2}a(x_9 + y_9) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_9 - y_9) \hat{\mathbf{y}} + cz_9 \hat{\mathbf{z}} &(3a) & \text{Na I} \\
\mathbf{B}_{26} &= -y_9 \mathbf{a}_1 + (x_9 - y_9) \mathbf{a}_2 + (z_9 + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_9 - 2y_9) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_9 \hat{\mathbf{y}} + \frac{1}{3}c(3z_9 + 2) \hat{\mathbf{z}} &(3a) & \text{Na I} \\
\mathbf{B}_{27} &= -(x_9 - y_9) \mathbf{a}_1 - x_9 \mathbf{a}_2 + (z_9 + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_9 - y_9) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_9 \hat{\mathbf{y}} + c(z_9 + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{Na I} \\
\mathbf{B}_{28} &= x_{10} \mathbf{a}_1 + y_{10} \mathbf{a}_2 + z_{10} \mathbf{a}_3 &= \frac{1}{2}a(x_{10} + y_{10}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{10} - y_{10}) \hat{\mathbf{y}} + cz_{10} \hat{\mathbf{z}} &(3a) & \text{O I} \\
\mathbf{B}_{29} &= -y_{10} \mathbf{a}_1 + (x_{10} - y_{10}) \mathbf{a}_2 + (z_{10} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{10} - 2y_{10}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{10} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{10} + 2) \hat{\mathbf{z}} &(3a) & \text{O I} \\
\mathbf{B}_{30} &= -(x_{10} - y_{10}) \mathbf{a}_1 - x_{10} \mathbf{a}_2 + (z_{10} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{10} - y_{10}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{10} \hat{\mathbf{y}} + c(z_{10} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O I} \\
\mathbf{B}_{31} &= x_{11} \mathbf{a}_1 + y_{11} \mathbf{a}_2 + z_{11} \mathbf{a}_3 &= \frac{1}{2}a(x_{11} + y_{11}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{11} - y_{11}) \hat{\mathbf{y}} + cz_{11} \hat{\mathbf{z}} &(3a) & \text{O II} \\
\mathbf{B}_{32} &= -y_{11} \mathbf{a}_1 + (x_{11} - y_{11}) \mathbf{a}_2 + (z_{11} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{11} - 2y_{11}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{11} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{11} + 2) \hat{\mathbf{z}} &(3a) & \text{O II} \\
\mathbf{B}_{33} &= -(x_{11} - y_{11}) \mathbf{a}_1 - x_{11} \mathbf{a}_2 + (z_{11} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{11} - y_{11}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{11} \hat{\mathbf{y}} + c(z_{11} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O II} \\
\mathbf{B}_{34} &= x_{12} \mathbf{a}_1 + y_{12} \mathbf{a}_2 + z_{12} \mathbf{a}_3 &= \frac{1}{2}a(x_{12} + y_{12}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{12} - y_{12}) \hat{\mathbf{y}} + cz_{12} \hat{\mathbf{z}} &(3a) & \text{O III} \\
\mathbf{B}_{35} &= -y_{12} \mathbf{a}_1 + (x_{12} - y_{12}) \mathbf{a}_2 + (z_{12} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{12} - 2y_{12}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{12} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{12} + 2) \hat{\mathbf{z}} &(3a) & \text{O III} \\
\mathbf{B}_{36} &= -(x_{12} - y_{12}) \mathbf{a}_1 - x_{12} \mathbf{a}_2 + (z_{12} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{12} - y_{12}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{12} \hat{\mathbf{y}} + c(z_{12} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O III} \\
\mathbf{B}_{37} &= x_{13} \mathbf{a}_1 + y_{13} \mathbf{a}_2 + z_{13} \mathbf{a}_3 &= \frac{1}{2}a(x_{13} + y_{13}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{13} - y_{13}) \hat{\mathbf{y}} + cz_{13} \hat{\mathbf{z}} &(3a) & \text{O IV} \\
\mathbf{B}_{38} &= -y_{13} \mathbf{a}_1 + (x_{13} - y_{13}) \mathbf{a}_2 + (z_{13} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{13} - 2y_{13}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{13} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{13} + 2) \hat{\mathbf{z}} &(3a) & \text{O IV} \\
\mathbf{B}_{39} &= -(x_{13} - y_{13}) \mathbf{a}_1 - x_{13} \mathbf{a}_2 + (z_{13} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{13} - y_{13}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{13} \hat{\mathbf{y}} + c(z_{13} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O IV} \\
\mathbf{B}_{40} &= x_{14} \mathbf{a}_1 + y_{14} \mathbf{a}_2 + z_{14} \mathbf{a}_3 &= \frac{1}{2}a(x_{14} + y_{14}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{14} - y_{14}) \hat{\mathbf{y}} + cz_{14} \hat{\mathbf{z}} &(3a) & \text{O V} \\
\mathbf{B}_{41} &= -y_{14} \mathbf{a}_1 + (x_{14} - y_{14}) \mathbf{a}_2 + (z_{14} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{14} - 2y_{14}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{14} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{14} + 2) \hat{\mathbf{z}} &(3a) & \text{O V} \\
\mathbf{B}_{42} &= -(x_{14} - y_{14}) \mathbf{a}_1 - x_{14} \mathbf{a}_2 + (z_{14} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{14} - y_{14}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{14} \hat{\mathbf{y}} + c(z_{14} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O V} \\
\mathbf{B}_{43} &= x_{15} \mathbf{a}_1 + y_{15} \mathbf{a}_2 + z_{15} \mathbf{a}_3 &= \frac{1}{2}a(x_{15} + y_{15}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{15} - y_{15}) \hat{\mathbf{y}} + cz_{15} \hat{\mathbf{z}} &(3a) & \text{O VI} \\
\mathbf{B}_{44} &= -y_{15} \mathbf{a}_1 + (x_{15} - y_{15}) \mathbf{a}_2 + (z_{15} + \frac{2}{3}) \mathbf{a}_3 &= \frac{1}{2}a(x_{15} - 2y_{15}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{15} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{15} + 2) \hat{\mathbf{z}} &(3a) & \text{O VI} \\
\mathbf{B}_{45} &= -(x_{15} - y_{15}) \mathbf{a}_1 - x_{15} \mathbf{a}_2 + (z_{15} + \frac{1}{3}) \mathbf{a}_3 &= -\frac{1}{2}a(2x_{15} - y_{15}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{15} \hat{\mathbf{y}} + c(z_{15} + \frac{1}{3}) \hat{\mathbf{z}} &(3a) & \text{O VI}
\end{aligned}$$

$$\mathbf{B}_{46} = x_{16} \mathbf{a}_1 + y_{16} \mathbf{a}_2 + z_{16} \mathbf{a}_3 = \frac{1}{2}a(x_{16} + y_{16}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}a(x_{16} - y_{16}) \hat{\mathbf{y}} + cz_{16} \hat{\mathbf{z}} \quad (3a) \quad \text{O VII}$$

$$\mathbf{B}_{47} = -y_{16} \mathbf{a}_1 + (x_{16} - y_{16}) \mathbf{a}_2 + (z_{16} + \frac{2}{3}) \mathbf{a}_3 = \frac{1}{2}a(x_{16} - 2y_{16}) \hat{\mathbf{x}} + \frac{\sqrt{3}}{2}ax_{16} \hat{\mathbf{y}} + \frac{1}{3}c(3z_{16} + 2) \hat{\mathbf{z}} \quad (3a) \quad \text{O VII}$$

$$\mathbf{B}_{48} = -(x_{16} - y_{16}) \mathbf{a}_1 - x_{16} \mathbf{a}_2 + (z_{16} + \frac{1}{3}) \mathbf{a}_3 = -\frac{1}{2}a(2x_{16} - y_{16}) \hat{\mathbf{x}} - \frac{\sqrt{3}}{2}ay_{16} \hat{\mathbf{y}} + c(z_{16} + \frac{1}{3}) \hat{\mathbf{z}} \quad (3a) \quad \text{O VII}$$

## References

- [1] J. D. Grice, R. A. Gault, and J. van Velthuisen, *Sheldrickite, a new sodium-calcium-fluorocarbonate mineral species from Mont Saint-Hilaire, Quebec*, Can. Mineral. **35**, 181–187 (1997).

## Found in

- [1] P. Villars and K. Cenzual, *Pearson's Crystal Data – Crystal Structure Database for Inorganic Compounds* (2013). ASM International.