

Na₁₁U₅O₁₆ Structure:

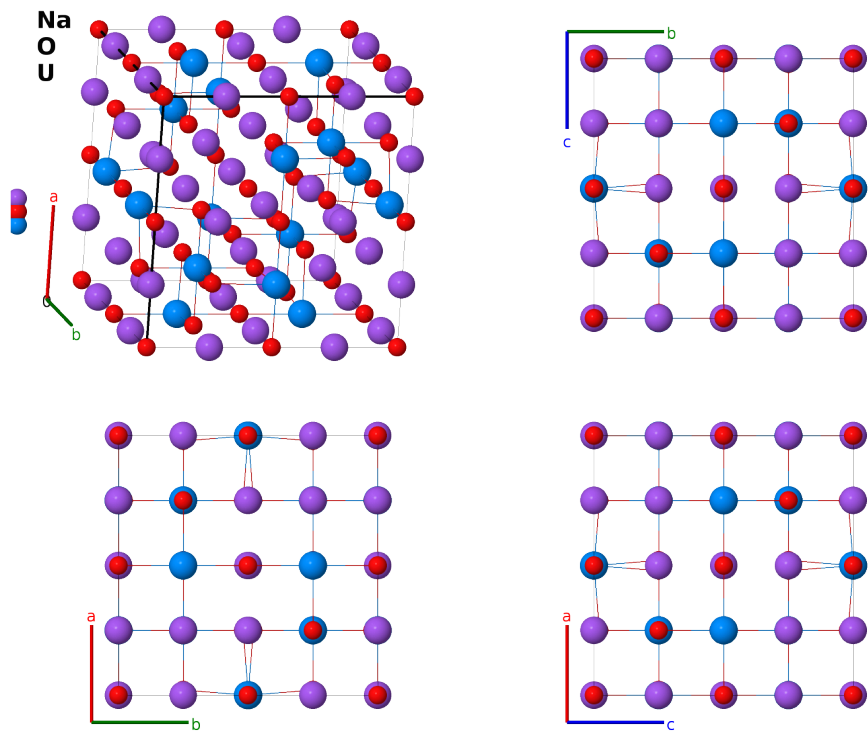
A11B16C5_cP64_208_bfh_adm_ce-001

Cite this page as:

- H. Eckert, S. Divilov, M. J. Mehl, D. Hicks, A. C. Zettel, M. Esters, X. Campilongo, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 4*, Comput. Mater. Sci. **240**, 112988 (2024), doi: 10.1016/j.commatsci.2024.112988.
- D. Hicks, M. J. Mehl, M. Esters, C. Osos, O. Levy, G. L. W. Hart, C. Toher, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 3*, Comput. Mater. Sci. **199**, 110450 (2021), doi: 10.1016/j.commatsci.2021.110450.

<https://aflow.org/prototype-encyclopedia/NFNJ>

https://aflow.org/prototype-encyclopedia/A11B16C5_cP64_208_bfh_adm_ce-001



Prototype	Na ₁₁ O ₁₆ U ₅
AFLOW prototype label	A11B16C5_cP64_208_bfh_adm_ce-001
ICSD	15137
CCDC	1595915
Pearson symbol	cP64
Space group number	208
Space group symbol	$P4_232$
AFLOW prototype command	<code>aflow --proto=A11B16C5_cP64_208_bfh_adm_ce-001</code> <code>--params=a, x₇, x₈, y₈, z₈</code>

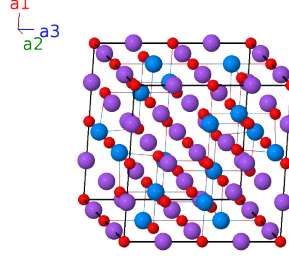
- (Bartram, 1970) say the atoms were “arbitrarily placed” at the Wyckoff positions listed, with $z_8 = 0$. This gives a $\text{U}_1\text{-O}_3$ distance of $2.38\text{\AA}$. They then set $z_8 = -0.02$ (0.52 using our origin), giving a distance of $2.19\text{\AA}$, which they consider “more reasonable,” but the other U-O distances remain at $2.39\text{\AA}$. If we find a refinement of this structure we will update this page.

Simple Cubic primitive vectors

$$\mathbf{a}_1 = a \hat{\mathbf{x}}$$

$$\mathbf{a}_2 = a \hat{\mathbf{y}}$$

$$\mathbf{a}_3 = a \hat{\mathbf{z}}$$



Basis vectors

	Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B}_1 =$	0	$=$	0	(2a)	O I
$\mathbf{B}_2 =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(2a)	O I
$\mathbf{B}_3 =$	$\frac{1}{4} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{y}} + \frac{1}{4} a \hat{\mathbf{z}}$	(4b)	Na I
$\mathbf{B}_4 =$	$\frac{3}{4} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{y}} + \frac{1}{4} a \hat{\mathbf{z}}$	(4b)	Na I
$\mathbf{B}_5 =$	$\frac{3}{4} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{y}} + \frac{3}{4} a \hat{\mathbf{z}}$	(4b)	Na I
$\mathbf{B}_6 =$	$\frac{1}{4} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{y}} + \frac{3}{4} a \hat{\mathbf{z}}$	(4b)	Na I
$\mathbf{B}_7 =$	$\frac{3}{4} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{y}} + \frac{3}{4} a \hat{\mathbf{z}}$	(4c)	U I
$\mathbf{B}_8 =$	$\frac{1}{4} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{y}} + \frac{3}{4} a \hat{\mathbf{z}}$	(4c)	U I
$\mathbf{B}_9 =$	$\frac{1}{4} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{y}} + \frac{1}{4} a \hat{\mathbf{z}}$	(4c)	U I
$\mathbf{B}_{10} =$	$\frac{3}{4} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{y}} + \frac{1}{4} a \hat{\mathbf{z}}$	(4c)	U I
$\mathbf{B}_{11} =$	$\frac{1}{2} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6d)	O II
$\mathbf{B}_{12} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6d)	O II
$\mathbf{B}_{13} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}}$	(6d)	O II
$\mathbf{B}_{14} =$	$\frac{1}{2} \mathbf{a}_2$	$=$	$\frac{1}{2} a \hat{\mathbf{y}}$	(6d)	O II
$\mathbf{B}_{15} =$	$\frac{1}{2} \mathbf{a}_1$	$=$	$\frac{1}{2} a \hat{\mathbf{x}}$	(6d)	O II
$\mathbf{B}_{16} =$	$\frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{z}}$	(6d)	O II
$\mathbf{B}_{17} =$	$\frac{1}{4} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6e)	U II
$\mathbf{B}_{18} =$	$\frac{3}{4} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6e)	U II
$\mathbf{B}_{19} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{y}}$	(6e)	U II
$\mathbf{B}_{20} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{y}}$	(6e)	U II
$\mathbf{B}_{21} =$	$\frac{1}{2} \mathbf{a}_2 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{y}} + \frac{1}{4} a \hat{\mathbf{z}}$	(6e)	U II
$\mathbf{B}_{22} =$	$\frac{1}{2} \mathbf{a}_2 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{y}} + \frac{3}{4} a \hat{\mathbf{z}}$	(6e)	U II
$\mathbf{B}_{23} =$	$\frac{1}{4} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2$	$=$	$\frac{1}{4} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}}$	(6f)	Na II
$\mathbf{B}_{24} =$	$\frac{3}{4} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2$	$=$	$\frac{3}{4} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}}$	(6f)	Na II
$\mathbf{B}_{25} =$	$\frac{1}{4} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{4} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6f)	Na II

$\mathbf{B}_{26} =$	$\frac{3}{4} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{3}{4} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(6f)	Na II
$\mathbf{B}_{27} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{4} a \hat{\mathbf{z}}$	(6f)	Na II
$\mathbf{B}_{28} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{3}{4} a \hat{\mathbf{z}}$	(6f)	Na II
$\mathbf{B}_{29} =$	$x_7 \mathbf{a}_1$	$=$	$ax_7 \hat{\mathbf{x}}$	(12h)	Na III
$\mathbf{B}_{30} =$	$-x_7 \mathbf{a}_1$	$=$	$-ax_7 \hat{\mathbf{x}}$	(12h)	Na III
$\mathbf{B}_{31} =$	$x_7 \mathbf{a}_2$	$=$	$ax_7 \hat{\mathbf{y}}$	(12h)	Na III
$\mathbf{B}_{32} =$	$-x_7 \mathbf{a}_2$	$=$	$-ax_7 \hat{\mathbf{y}}$	(12h)	Na III
$\mathbf{B}_{33} =$	$x_7 \mathbf{a}_3$	$=$	$ax_7 \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{34} =$	$-x_7 \mathbf{a}_3$	$=$	$-ax_7 \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{35} =$	$\frac{1}{2} \mathbf{a}_1 + (x_7 + \frac{1}{2}) \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + a (x_7 + \frac{1}{2}) \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{36} =$	$\frac{1}{2} \mathbf{a}_1 - (x_7 - \frac{1}{2}) \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} - a (x_7 - \frac{1}{2}) \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{37} =$	$(x_7 + \frac{1}{2}) \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$a (x_7 + \frac{1}{2}) \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{38} =$	$-(x_7 - \frac{1}{2}) \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2 + \frac{1}{2} \mathbf{a}_3$	$=$	$-a (x_7 - \frac{1}{2}) \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}} + \frac{1}{2} a \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{39} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2 - (x_7 - \frac{1}{2}) \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}} - a (x_7 - \frac{1}{2}) \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{40} =$	$\frac{1}{2} \mathbf{a}_1 + \frac{1}{2} \mathbf{a}_2 + (x_7 + \frac{1}{2}) \mathbf{a}_3$	$=$	$\frac{1}{2} a \hat{\mathbf{x}} + \frac{1}{2} a \hat{\mathbf{y}} + a (x_7 + \frac{1}{2}) \hat{\mathbf{z}}$	(12h)	Na III
$\mathbf{B}_{41} =$	$x_8 \mathbf{a}_1 + y_8 \mathbf{a}_2 + z_8 \mathbf{a}_3$	$=$	$ax_8 \hat{\mathbf{x}} + ay_8 \hat{\mathbf{y}} + az_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{42} =$	$-x_8 \mathbf{a}_1 - y_8 \mathbf{a}_2 + z_8 \mathbf{a}_3$	$=$	$-ax_8 \hat{\mathbf{x}} - ay_8 \hat{\mathbf{y}} + az_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{43} =$	$-x_8 \mathbf{a}_1 + y_8 \mathbf{a}_2 - z_8 \mathbf{a}_3$	$=$	$-ax_8 \hat{\mathbf{x}} + ay_8 \hat{\mathbf{y}} - az_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{44} =$	$x_8 \mathbf{a}_1 - y_8 \mathbf{a}_2 - z_8 \mathbf{a}_3$	$=$	$ax_8 \hat{\mathbf{x}} - ay_8 \hat{\mathbf{y}} - az_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{45} =$	$z_8 \mathbf{a}_1 + x_8 \mathbf{a}_2 + y_8 \mathbf{a}_3$	$=$	$az_8 \hat{\mathbf{x}} + ax_8 \hat{\mathbf{y}} + ay_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{46} =$	$z_8 \mathbf{a}_1 - x_8 \mathbf{a}_2 - y_8 \mathbf{a}_3$	$=$	$az_8 \hat{\mathbf{x}} - ax_8 \hat{\mathbf{y}} - ay_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{47} =$	$-z_8 \mathbf{a}_1 - x_8 \mathbf{a}_2 + y_8 \mathbf{a}_3$	$=$	$-az_8 \hat{\mathbf{x}} - ax_8 \hat{\mathbf{y}} + ay_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{48} =$	$-z_8 \mathbf{a}_1 + x_8 \mathbf{a}_2 - y_8 \mathbf{a}_3$	$=$	$-az_8 \hat{\mathbf{x}} + ax_8 \hat{\mathbf{y}} - ay_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{49} =$	$y_8 \mathbf{a}_1 + z_8 \mathbf{a}_2 + x_8 \mathbf{a}_3$	$=$	$ay_8 \hat{\mathbf{x}} + az_8 \hat{\mathbf{y}} + ax_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{50} =$	$-y_8 \mathbf{a}_1 + z_8 \mathbf{a}_2 - x_8 \mathbf{a}_3$	$=$	$-ay_8 \hat{\mathbf{x}} + az_8 \hat{\mathbf{y}} - ax_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{51} =$	$y_8 \mathbf{a}_1 - z_8 \mathbf{a}_2 - x_8 \mathbf{a}_3$	$=$	$ay_8 \hat{\mathbf{x}} - az_8 \hat{\mathbf{y}} - ax_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{52} =$	$-y_8 \mathbf{a}_1 - z_8 \mathbf{a}_2 + x_8 \mathbf{a}_3$	$=$	$-ay_8 \hat{\mathbf{x}} - az_8 \hat{\mathbf{y}} + ax_8 \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{53} =$	$(y_8 + \frac{1}{2}) \mathbf{a}_1 + (x_8 + \frac{1}{2}) \mathbf{a}_2 - (z_8 - \frac{1}{2}) \mathbf{a}_3$	$=$	$a (y_8 + \frac{1}{2}) \hat{\mathbf{x}} + a (x_8 + \frac{1}{2}) \hat{\mathbf{y}} - a (z_8 - \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{54} =$	$-(y_8 - \frac{1}{2}) \mathbf{a}_1 - (x_8 - \frac{1}{2}) \mathbf{a}_2 - (z_8 - \frac{1}{2}) \mathbf{a}_3$	$=$	$-a (y_8 - \frac{1}{2}) \hat{\mathbf{x}} - a (x_8 - \frac{1}{2}) \hat{\mathbf{y}} - a (z_8 - \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{55} =$	$(y_8 + \frac{1}{2}) \mathbf{a}_1 - (x_8 - \frac{1}{2}) \mathbf{a}_2 + (z_8 + \frac{1}{2}) \mathbf{a}_3$	$=$	$a (y_8 + \frac{1}{2}) \hat{\mathbf{x}} - a (x_8 - \frac{1}{2}) \hat{\mathbf{y}} + a (z_8 + \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{56} =$	$-(y_8 - \frac{1}{2}) \mathbf{a}_1 + (x_8 + \frac{1}{2}) \mathbf{a}_2 + (z_8 + \frac{1}{2}) \mathbf{a}_3$	$=$	$-a (y_8 - \frac{1}{2}) \hat{\mathbf{x}} + a (x_8 + \frac{1}{2}) \hat{\mathbf{y}} + a (z_8 + \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{57} =$	$(x_8 + \frac{1}{2}) \mathbf{a}_1 + (z_8 + \frac{1}{2}) \mathbf{a}_2 - (y_8 - \frac{1}{2}) \mathbf{a}_3$	$=$	$a (x_8 + \frac{1}{2}) \hat{\mathbf{x}} + a (z_8 + \frac{1}{2}) \hat{\mathbf{y}} - a (y_8 - \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{58} =$	$-(x_8 - \frac{1}{2}) \mathbf{a}_1 + (z_8 + \frac{1}{2}) \mathbf{a}_2 + (y_8 + \frac{1}{2}) \mathbf{a}_3$	$=$	$-a (x_8 - \frac{1}{2}) \hat{\mathbf{x}} + a (z_8 + \frac{1}{2}) \hat{\mathbf{y}} + a (y_8 + \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{59} =$	$-(x_8 - \frac{1}{2}) \mathbf{a}_1 - (z_8 - \frac{1}{2}) \mathbf{a}_2 - (y_8 - \frac{1}{2}) \mathbf{a}_3$	$=$	$-a (x_8 - \frac{1}{2}) \hat{\mathbf{x}} - a (z_8 - \frac{1}{2}) \hat{\mathbf{y}} - a (y_8 - \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III
$\mathbf{B}_{60} =$	$(x_8 + \frac{1}{2}) \mathbf{a}_1 - (z_8 - \frac{1}{2}) \mathbf{a}_2 + (y_8 + \frac{1}{2}) \mathbf{a}_3$	$=$	$a (x_8 + \frac{1}{2}) \hat{\mathbf{x}} - a (z_8 - \frac{1}{2}) \hat{\mathbf{y}} + a (y_8 + \frac{1}{2}) \hat{\mathbf{z}}$	(24m)	O III

$$\begin{aligned}
\mathbf{B}_{61} &= \begin{pmatrix} (z_8 + \frac{1}{2}) \mathbf{a}_1 + (y_8 + \frac{1}{2}) \mathbf{a}_2 - \\ (x_8 - \frac{1}{2}) \mathbf{a}_3 \end{pmatrix} = a \begin{pmatrix} (z_8 + \frac{1}{2}) \hat{\mathbf{x}} + a (y_8 + \frac{1}{2}) \hat{\mathbf{y}} - a (x_8 - \frac{1}{2}) \hat{\mathbf{z}} \end{pmatrix} & (24m) & \text{O III} \\
\mathbf{B}_{62} &= \begin{pmatrix} (z_8 + \frac{1}{2}) \mathbf{a}_1 - (y_8 - \frac{1}{2}) \mathbf{a}_2 + \\ (x_8 + \frac{1}{2}) \mathbf{a}_3 \end{pmatrix} = a \begin{pmatrix} (z_8 + \frac{1}{2}) \hat{\mathbf{x}} - a (y_8 - \frac{1}{2}) \hat{\mathbf{y}} + a (x_8 + \frac{1}{2}) \hat{\mathbf{z}} \end{pmatrix} & (24m) & \text{O III} \\
\mathbf{B}_{63} &= \begin{pmatrix} -(z_8 - \frac{1}{2}) \mathbf{a}_1 + (y_8 + \frac{1}{2}) \mathbf{a}_2 + \\ (x_8 + \frac{1}{2}) \mathbf{a}_3 \end{pmatrix} = \begin{pmatrix} -a (z_8 - \frac{1}{2}) \hat{\mathbf{x}} + a (y_8 + \frac{1}{2}) \hat{\mathbf{y}} + a (x_8 + \frac{1}{2}) \hat{\mathbf{z}} \end{pmatrix} & (24m) & \text{O III} \\
\mathbf{B}_{64} &= \begin{pmatrix} -(z_8 - \frac{1}{2}) \mathbf{a}_1 - (y_8 - \frac{1}{2}) \mathbf{a}_2 - \\ (x_8 - \frac{1}{2}) \mathbf{a}_3 \end{pmatrix} = \begin{pmatrix} -a (z_8 - \frac{1}{2}) \hat{\mathbf{x}} - a (y_8 - \frac{1}{2}) \hat{\mathbf{y}} - a (x_8 - \frac{1}{2}) \hat{\mathbf{z}} \end{pmatrix} & (24m) & \text{O III}
\end{aligned}$$

References

- [1] S. F. Bartram and R. E. Fryxell, *Preparation and crystal structure of NaUO₃ and Na₁₁U₅O₁₆*, J. Inorg. Nucl. Chem. **32**, 3701–3706 (1970), doi:10.1016/0022-1902(70)80187-7.

First cited in

H. Eckert, S. Divilov, M. J. Mehl, D. Hicks, A. C. Zettel, M. Esters, X. Campilongo, and S. Curtarolo, *The AFLOW Library of Crystallographic Prototypes: Part 4*, Comput. Mater. Sci. **240**, 112988 (2024), doi: 10.1016/j.commatsci.2024.112988.