$NaC_5H_{11}O_8S$ Structure: A5B11CD8E_aP26_1_5a_11a_a_8a_a-001

This structure previously used the label(s) `A5B11CD8E_aP26_1_5a_11a_a_8a_a`. Calls to these addresses will be redirected here.

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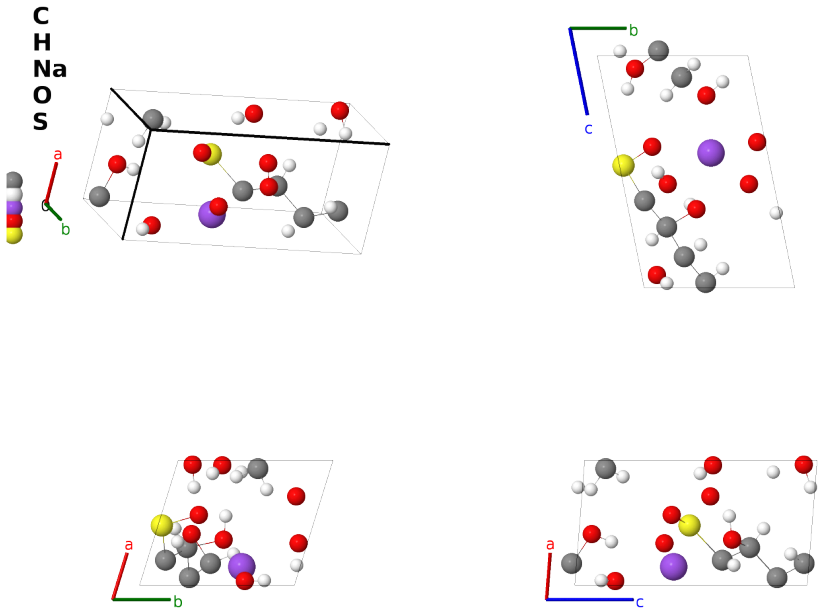
https://aflow.org/prototype-encyclopedia/WTTR

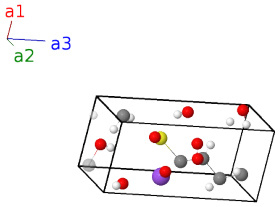
https://aflow.org/prototype-encyclopedia/A5B11CD8E_aP26_1_5a_11a_a_8a_a-001



Prototype	$C_5H_{11}NaO_8S$
AFLOW prototype label	A5B11CD8E_aP26_1_5a_11a_a_8a_a-001
CCDC	1471425
Pearson symbol	aP26
Space group number	1
Space group symbol	$P1$
AFLOW prototype command	`aflow --proto=A5B11CD8E_aP26_1_5a_11a_a_8a_a-001 --params=`$a, b/a, c/a, \alpha, \beta, \gamma, x_1, y_1, z_1, x_2, y_2, z_2, x_3, y_3, z_3, x_4, y_4, z_4, x_5, y_5, z_5, x_6, y_6, z_6, x_7, y_7, z_7, x_8, y_8, z_8, x_9, y_9, z_9, x_{10}, y_{10}, z_{10}, x_{11}, y_{11}, z_{11}, x_{12}, y_{12}, z_{12}, x_{13}, y_{13}, z_{13}, x_{14}, y_{14}, z_{14}, x_{15}, y_{15}, z_{15}, x_{16}, y_{16}, z_{16}, x_{17}, y_{17}, z_{17}, x_{18}, y_{18}, z_{18}, x_{19}, y_{19}, z_{19}, x_{20}, y_{20}, z_{20}, x_{21}, y_{21}, z_{21}, x_{22}, y_{22}, z_{22}, x_{23}, y_{23}, z_{23}, x_{24}, y_{24}, z_{24}, x_{25}, y_{25}, z_{25}, x_{26}, y_{26}, z_{26}$

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
$\mathbf{B_1}$	=	$x_1\,\mathbf{a}_1 + y_1\,\mathbf{a}_2 + z_1\,\mathbf{a}_3$	=	$(ax_1 + by_1\cos\gamma + c_x z_1)\,\hat{\mathbf{x}} + (by_1\sin\gamma + c_y z_1)\,\hat{\mathbf{y}} + c_z z_1\,\hat{\mathbf{z}}$	(1a)	C I
$\mathbf{B_2}$	=	$x_2\,\mathbf{a}_1 + y_2\,\mathbf{a}_2 + z_2\,\mathbf{a}_3$	=	$(ax_2 + by_2\cos\gamma + c_x z_2)\,\hat{\mathbf{x}} + (by_2\sin\gamma + c_y z_2)\,\hat{\mathbf{y}} + c_z z_2\,\hat{\mathbf{z}}$	(1a)	C II
$\mathbf{B_3}$	=	$x_3\,\mathbf{a}_1 + y_3\,\mathbf{a}_2 + z_3\,\mathbf{a}_3$	=	$(ax_3 + by_3\cos\gamma + c_x z_3)\,\hat{\mathbf{x}} + (by_3\sin\gamma + c_y z_3)\,\hat{\mathbf{y}} + c_z z_3\,\hat{\mathbf{z}}$	(1a)	C III
$\mathbf{B_4}$	=	$x_4\,\mathbf{a}_1 + y_4\,\mathbf{a}_2 + z_4\,\mathbf{a}_3$	=	$(ax_4 + by_4\cos\gamma + c_x z_4)\,\hat{\mathbf{x}} + (by_4\sin\gamma + c_y z_4)\,\hat{\mathbf{y}} + c_z z_4\,\hat{\mathbf{z}}$	(1a)	C IV
$\mathbf{B_5}$	=	$x_5\,\mathbf{a}_1 + y_5\,\mathbf{a}_2 + z_5\,\mathbf{a}_3$	=	$(ax_5 + by_5\cos\gamma + c_x z_5)\,\hat{\mathbf{x}} + (by_5\sin\gamma + c_y z_5)\,\hat{\mathbf{y}} + c_z z_5\,\hat{\mathbf{z}}$	(1a)	C V
$\mathbf{B_6}$	=	$x_6\,\mathbf{a}_1 + y_6\,\mathbf{a}_2 + z_6\,\mathbf{a}_3$	=	$(ax_6 + by_6\cos\gamma + c_x z_6)\,\hat{\mathbf{x}} + (by_6\sin\gamma + c_y z_6)\,\hat{\mathbf{y}} + c_z z_6\,\hat{\mathbf{z}}$	(1a)	H I
$\mathbf{B_7}$	=	$x_7\,\mathbf{a}_1 + y_7\,\mathbf{a}_2 + z_7\,\mathbf{a}_3$	=	$(ax_7 + by_7\cos\gamma + c_x z_7)\,\hat{\mathbf{x}} + (by_7\sin\gamma + c_y z_7)\,\hat{\mathbf{y}} + c_z z_7\,\hat{\mathbf{z}}$	(1a)	H II
$\mathbf{B_8}$	=	$x_8\,\mathbf{a}_1 + y_8\,\mathbf{a}_2 + z_8\,\mathbf{a}_3$	=	$(ax_8 + by_8\cos\gamma + c_x z_8)\,\hat{\mathbf{x}} + (by_8\sin\gamma + c_y z_8)\,\hat{\mathbf{y}} + c_z z_8\,\hat{\mathbf{z}}$	(1a)	H III
$\mathbf{B_9}$	=	$x_9\,\mathbf{a}_1 + y_9\,\mathbf{a}_2 + z_9\,\mathbf{a}_3$	=	$(ax_9 + by_9\cos\gamma + c_x z_9)\,\hat{\mathbf{x}} + (by_9\sin\gamma + c_y z_9)\,\hat{\mathbf{y}} + c_z z_9\,\hat{\mathbf{z}}$	(1a)	H IV
$\mathbf{B_{10}}$	=	$x_{10}\,\mathbf{a}_1 + y_{10}\,\mathbf{a}_2 + z_{10}\,\mathbf{a}_3$	=	$(ax_{10} + by_{10}\cos\gamma + c_x z_{10})\,\hat{\mathbf{x}} + (by_{10}\sin\gamma + c_y z_{10})\,\hat{\mathbf{y}} + c_z z_{10}\,\hat{\mathbf{z}}$	(1a)	H V
$\mathbf{B_{11}}$	=	$x_{11}\,\mathbf{a}_1 + y_{11}\,\mathbf{a}_2 + z_{11}\,\mathbf{a}_3$	=	$(ax_{11} + by_{11}\cos\gamma + c_x z_{11})\,\hat{\mathbf{x}} + (by_{11}\sin\gamma + c_y z_{11})\,\hat{\mathbf{y}} + c_z z_{11}\,\hat{\mathbf{z}}$	(1a)	H VI
$\mathbf{B_{12}}$	=	$x_{12}\,\mathbf{a}_1 + y_{12}\,\mathbf{a}_2 + z_{12}\,\mathbf{a}_3$	=	$(ax_{12} + by_{12}\cos\gamma + c_x z_{12})\,\hat{\mathbf{x}} + (by_{12}\sin\gamma + c_y z_{12})\,\hat{\mathbf{y}} + c_z z_{12}\,\hat{\mathbf{z}}$	(1a)	H VII
$\mathbf{B_{13}}$	=	$x_{13}\,\mathbf{a}_1 + y_{13}\,\mathbf{a}_2 + z_{13}\,\mathbf{a}_3$	=	$(ax_{13} + by_{13}\cos\gamma + c_x z_{13})\,\hat{\mathbf{x}} + (by_{13}\sin\gamma + c_y z_{13})\,\hat{\mathbf{y}} + c_z z_{13}\,\hat{\mathbf{z}}$	(1a)	H VIII
$\mathbf{B_{14}}$	=	$x_{14}\,\mathbf{a}_1 + y_{14}\,\mathbf{a}_2 + z_{14}\,\mathbf{a}_3$	=	$(ax_{14} + by_{14}\cos\gamma + c_x z_{14})\,\hat{\mathbf{x}} + (by_{14}\sin\gamma + c_y z_{14})\,\hat{\mathbf{y}} + c_z z_{14}\,\hat{\mathbf{z}}$	(1a)	H IX
$\mathbf{B_{15}}$	=	$x_{15}\,\mathbf{a}_1 + y_{15}\,\mathbf{a}_2 + z_{15}\,\mathbf{a}_3$	=	$(ax_{15} + by_{15}\cos\gamma + c_x z_{15})\,\hat{\mathbf{x}} + (by_{15}\sin\gamma + c_y z_{15})\,\hat{\mathbf{y}} + c_z z_{15}\,\hat{\mathbf{z}}$	(1a)	H X
$\mathbf{B_{16}}$	=	$x_{16}\,\mathbf{a}_1 + y_{16}\,\mathbf{a}_2 + z_{16}\,\mathbf{a}_3$	=	$(ax_{16} + by_{16}\cos\gamma + c_x z_{16})\,\hat{\mathbf{x}} + (by_{16}\sin\gamma + c_y z_{16})\,\hat{\mathbf{y}} + c_z z_{16}\,\hat{\mathbf{z}}$	(1a)	H XI

$\mathbf{B_{17}}$	=	$x_{17}\,\mathbf{a}_1 + y_{17}\,\mathbf{a}_2 + z_{17}\,\mathbf{a}_3$	=	$(ax_{17} + by_{17}\cos\gamma + c_x z_{17})\,\hat{\mathbf{x}} +$ $(by_{17}\sin\gamma + c_y z_{17})\,\hat{\mathbf{y}} + c_z z_{17}\,\hat{\mathbf{z}}$	(1a)	Na I
$\mathbf{B_{18}}$	=	$x_{18}\,\mathbf{a}_1 + y_{18}\,\mathbf{a}_2 + z_{18}\,\mathbf{a}_3$	=	$(ax_{18} + by_{18}\cos\gamma + c_x z_{18})\,\hat{\mathbf{x}} +$ $(by_{18}\sin\gamma + c_y z_{18})\,\hat{\mathbf{y}} + c_z z_{18}\,\hat{\mathbf{z}}$	(1a)	O I
$\mathbf{B_{19}}$	=	$x_{19}\,\mathbf{a}_1 + y_{19}\,\mathbf{a}_2 + z_{19}\,\mathbf{a}_3$	=	$(ax_{19} + by_{19}\cos\gamma + c_x z_{19})\,\hat{\mathbf{x}} +$ $(by_{19}\sin\gamma + c_y z_{19})\,\hat{\mathbf{y}} + c_z z_{19}\,\hat{\mathbf{z}}$	(1a)	O II
$\mathbf{B_{20}}$	=	$x_{20}\,\mathbf{a}_1 + y_{20}\,\mathbf{a}_2 + z_{20}\,\mathbf{a}_3$	=	$(ax_{20} + by_{20}\cos\gamma + c_x z_{20})\,\hat{\mathbf{x}} +$ $(by_{20}\sin\gamma + c_y z_{20})\,\hat{\mathbf{y}} + c_z z_{20}\,\hat{\mathbf{z}}$	(1a)	O III
$\mathbf{B_{21}}$	=	$x_{21}\,\mathbf{a}_1 + y_{21}\,\mathbf{a}_2 + z_{21}\,\mathbf{a}_3$	=	$(ax_{21} + by_{21}\cos\gamma + c_x z_{21})\,\hat{\mathbf{x}} +$ $(by_{21}\sin\gamma + c_y z_{21})\,\hat{\mathbf{y}} + c_z z_{21}\,\hat{\mathbf{z}}$	(1a)	O IV
$\mathbf{B_{22}}$	=	$x_{22}\,\mathbf{a}_1 + y_{22}\,\mathbf{a}_2 + z_{22}\,\mathbf{a}_3$	=	$(ax_{22} + by_{22}\cos\gamma + c_x z_{22})\,\hat{\mathbf{x}} +$ $(by_{22}\sin\gamma + c_y z_{22})\,\hat{\mathbf{y}} + c_z z_{22}\,\hat{\mathbf{z}}$	(1a)	O V
$\mathbf{B_{23}}$	=	$x_{23}\,\mathbf{a}_1 + y_{23}\,\mathbf{a}_2 + z_{23}\,\mathbf{a}_3$	=	$(ax_{23} + by_{23}\cos\gamma + c_x z_{23})\,\hat{\mathbf{x}} +$ $(by_{23}\sin\gamma + c_y z_{23})\,\hat{\mathbf{y}} + c_z z_{23}\,\hat{\mathbf{z}}$	(1a)	O VI
$\mathbf{B_{24}}$	=	$x_{24}\,\mathbf{a}_1 + y_{24}\,\mathbf{a}_2 + z_{24}\,\mathbf{a}_3$	=	$(ax_{24} + by_{24}\cos\gamma + c_x z_{24})\,\hat{\mathbf{x}} +$ $(by_{24}\sin\gamma + c_y z_{24})\,\hat{\mathbf{y}} + c_z z_{24}\,\hat{\mathbf{z}}$	(1a)	O VII
$\mathbf{B_{25}}$	=	$x_{25}\,\mathbf{a}_1 + y_{25}\,\mathbf{a}_2 + z_{25}\,\mathbf{a}_3$	=	$(ax_{25} + by_{25}\cos\gamma + c_x z_{25})\,\hat{\mathbf{x}} +$ $(by_{25}\sin\gamma + c_y z_{25})\,\hat{\mathbf{y}} + c_z z_{25}\,\hat{\mathbf{z}}$	(1a)	O VIII
$\mathbf{B_{26}}$	=	$x_{26}\,\mathbf{a}_1 + y_{26}\,\mathbf{a}_2 + z_{26}\,\mathbf{a}_3$	=	$(ax_{26} + by_{26}\cos\gamma + c_x z_{26})\,\hat{\mathbf{x}} +$ $(by_{26}\sin\gamma + c_y z_{26})\,\hat{\mathbf{y}} + c_z z_{26}\,\hat{\mathbf{z}}$	(1a)	S I

References

[1] A. H. Haines and D. L. Hughes, *Crystal structure of sodium (1S)-D-lyxit-1-ylsulfonate* **72**, 628–631 (2016), doi:10.1107/S2056989016005375.

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