BN (High-pressure, high-temperature) Structure: AB_oF8_42_a_a-001

This structure originally had the label `AB_oF8_42_a_a`. Calls to that address will be redirected here.

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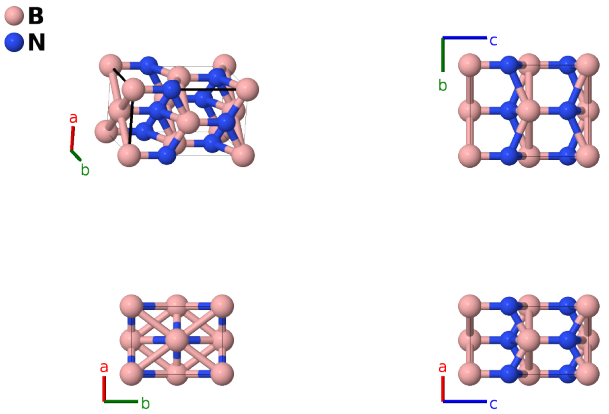
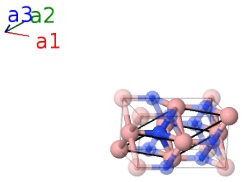
https://aflow.org/p/0Q2T

https://aflow.org/p/AB_oF8_42_a_a-001



Prototype	BN
AFLOW prototype label	AB_oF8_42_a_a-001
ICSD	20946
Pearson symbol	oF8
Space group number	42
Space group symbol	$Fmm2$
AFLOW prototype command	`aflow --proto=AB_oF8_42_a_a-001 --params=`$a, b/a, c/a, z_1, z_2$

Face-centered Orthorhombic primitive vectors



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

Basis vectors

		Lattice coordinates		Cartesian coordinates	Wyckoff position	Atom type
$\mathbf{B_1}$	=	$z_1\,\mathbf{a}_1 + z_1\,\mathbf{a}_2 - z_1\,\mathbf{a}_3$	=	$cz_1\,\hat{\mathbf{z}}$	(4a)	B I
$\mathbf{B_2}$	=	$z_2\,\mathbf{a}_1 + z_2\,\mathbf{a}_2 - z_2\,\mathbf{a}_3$	=	$cz_2\,\hat{\mathbf{z}}$	(4a)	N I

References

[1] A. V. Kurdyumov and G. S. Olejnik, *On metastable structures of graphite–like boron nitride*, Kristallografiya **29**, 792–793 (1984).

Found in

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