α-Po (A_h, simple cubic) Structure: A_cP1_221_a-001

This structure originally had the label `A_cP1_221_a`. Calls to that address will be redirected here.

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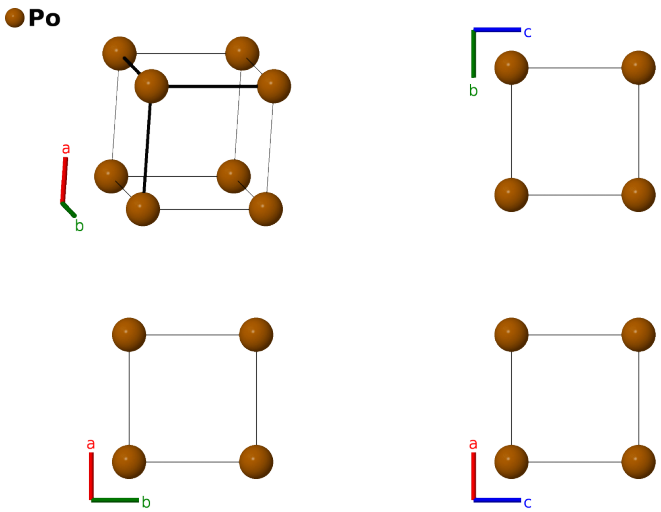
https://aflow.org/p/NG7Y

https://aflow.org/p/A_cP1_221_a-001

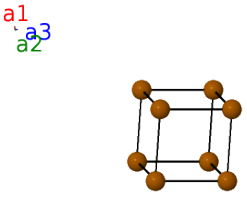


Prototype	Po
AFLOW prototype label	A_cP1_221_a-001
***Strukturbericht* designation**	A_h
ICSD	655031
Pearson symbol	cP1
Space group number	221
Space group symbol	$Pm\bar{3}m$
AFLOW prototype command	`aflow --proto=A_cP1_221_a-001 --params=`a

- This is a simple cubic lattice. Polonium is the only element known with this ground state. Originally, Po was assigned *Strukturbericht* designation $A19$, which is now considered to be incorrect. (Donohue, 1982, 390)

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	(1a)	Po I

References

[1] W. H. Beamer and C. R. Maxwel, *The Crystal Structure of Polonium*, J. Chem. Phys. **14**, 569 (1946), doi:10.1063/1.1724201.

[2] C. Gottfried, ed., *Strukturbericht Band IV 1936* (Akademische Verlagsgesellschaft M. B. H., Leipzig, 1938).

Found in

[1] J. Donohue, *The Structures of the Elements* (Robert E. Krieger Publishing Company, New York, 1974).