

substance: transition metal-(V)₃ compounds

property: crystallographic data for semiconducting skutterudite-type compounds TX₃

All data for RT, space group T_h⁵ – Im3; Z = 8. T in 8(e), X in 24(g).

Compound	<i>a</i> [Å]	<i>d</i> _x [g cm ⁻³]	T–X [Å]	X–X [Å]		Ref.
				2 <i>za</i>	(1–2 <i>y</i>) <i>a</i>	
CoP ₃	7.7073	4.41	2.22	2.24	2.34	68R
	7.702					77A
CoAs ₃	8.2055	6.82	2.34	2.48	2.56	74K
	8.208					77A
	8.204					60S
CoSb ₃	9.0347	7.64	2.52	2.89	2.98	74K
	9.034					60Z, 77A
RhP ₃	7.9951	5.05	2.34	2.23	2.32	68R
	7.991					78O
RhAs ₃	8.4507	7.21	2.43	2.47	2.56	74K
RhSb ₃	9.2322	7.90	2.62	2.80	2.92	74K
	9.229					60Z, 56Z
IrP ₃	8.0151	7.36	2.35	2.23	2.34	68R
IrAs ₃	8.4673	9.12	2.44	2.46	2.58	74K
	8.4691					61K
IrSb ₃	9.2533	9.35	2.62	2.85	2.95	74K
	9.248					60Z, 57K, 56Z
Co _{0.87} Fe _{0.11} Ni _{0.13} As ₃ (?)	8.195	7.00	2.33	2.46	2.57	71M
F _{0.5} Ni _{0.5} Sb ₃	9.0904	7.47	2.54	2.89	3.00	74K, 70B

Co_{1–x–y}Fe_xNi_yAs₃: *a* [Å] = 8.2060 – 0.0246*x* + 0.1240*y* [62R].

References:

- 56Z Zhuravlev, N. N., Zhdanov, G. S.: Kristallografiya 1 (1956) 509 (translation: Sov. Phys. Cryst. 1 (1956) 3).
- 57K Kuz'min, R. N., Zhdanov, G. S., Zhuravlev, N. N.: Kristallografiya 2 (1957) 48 (translation: Sov. Phys. Cryst. 2 (1957) 42).
- 60S Swanson, H. E., Cook, M. I., Evans, E. H., de Groot, J. H.: NBS Circ. 539, Vol. 10 (1960) 21.
- 60Z Zhuravlev, N. N., Zhdanov, G. S., Kuz'min, R. N.: Kristallografiya 5 (1960) 553 (translation: Sov. Phys. Cryst. 5 (1961) 532).
- 61K Kjekshus, A., Pedersen, G.: Acta Crystallogr. 14 (1961) 1065.
- 62R Roseboom, E. H.: Am. Mineral. 47 (1962) 310.
- 68R Rundqvist, S., Ersson, N. O.: Arkiv Kemi 30 (1968) 103.
- 70B Bjerkelund, E., Kjekshus, A.: Acta Chem. Scand. 24 (1970) 3317.
- 71M Mandel, N., Donohue, J.: Acta Crystallogr. B27 (1971) 2288.
- 74K Kjekshus, A., Rakke, T.: Acta Chem. Scand. A28 (1974) 99.
- 77A Ackermann, J., Wold, A.: J. Phys. Chem. Solids 33 (1977) 1013.
- 78O Odile, J. P., Soled, S., Castro, C. A., Wold, A.: Inorg. Chem. 17 (1978) 283.