

Name and formula

Reference code:	00-006-0329
Compound name:	Praseodymium Oxide
PDF index name:	Praseodymium Oxide
Empirical formula:	O _{1.83} Pr
Chemical formula:	PrO _{1.83}

Crystallographic parameters

Crystal system:	Cubic
Space group:	Fm-3m
Space group number:	225
a (Å):	5.4695
b (Å):	5.4695
c (Å):	5.4695
Alpha (°):	90.0000
Beta (°):	90.0000
Gamma (°):	90.0000
Calculated density (g/cm ³):	-1.00
Measured density (g/cm ³):	-1.00
Volume of cell (10 ⁶ pm ³):	163.62
Z:	4.00
RIR::	-

Subfiles and quality

Subfiles:	Alloy, metal or intermetallic, Inorganic
Quality:	Indexed (I)

Comments

Sample Source or Locality:	Sample from Johnson Matthey Company, Ltd
Analysis:	Spectroscopic analysis: <0.001% Mg, Ca; <0.0001% Cu, Sn, Al. Sample
Preparation:	Heated to 800 C in air. Temperature of Data Collection: X-ray pattern at 26 C.

References

Primary reference: Swanson et al., *Natl. Bur. Stand. Annual Report*, 2779, (1953)

Peak list

No.	h	k	l	d [Å]	2 θ [°]	I [%]
1	1	1	1	3.15400	28.273	100.0
2	2	0	0	2.73400	32.729	35.0
3	2	2	0	1.93360	46.953	50.0
4	3	1	1	1.64860	55.711	40.0
5	2	2	2	1.57880	58.406	10.0
6	4	0	0	1.36670	68.613	8.0
7	3	3	1	1.25460	75.756	14.0
8	4	2	0	1.22310	78.070	10.0
9	4	2	2	1.11630	87.268	10.0
10	5	1	1	1.05270	94.064	10.0
11	4	4	0	0.96680	105.642	6.0
12	5	3	1	0.92450	112.859	10.0
13	6	0	0	0.91150	115.363	8.0
14	6	2	0	0.86480	125.929	4.0
15	5	3	3	0.83410	134.889	6.0
16	6	2	2	0.82460	138.182	6.0

Stick Pattern

