

15.04.19

Name and formula

Reference code: 00-044-1159

Compound name: Nickel Oxide

Empirical formula: NiO

Chemical formula: NiO

Crystallographic parameters

Crystal system: Rhombohedral

Space group: R-3m

Space group number: 166

a (?): 2.9552

b (?): 2.9552

c (?): 7.2275

Alpha (°): 90.0000

Beta (°): 90.0000

Gamma (°): 120.0000

Calculated density (g/cm³): 6.81

Volume of cell (10⁻⁶ pm³): 54.66

Z: 3.00

RIR: 2.10

Subfiles and quality

Subfiles: Alloy, metal or intermetallic
Corrosion
Forensic
Inorganic

Quality: Star (S)

Comments

Color: Light green

Creation Date: 1970/1/1

Modification Date: 1970/1/1

Sample Preparation: Sample obtained from Merck (puriss.). For better crystallization, annealed at 1300 C for 5 hours and quenched

Color: Light green

Temperature of Data Collection: Pattern taken at 22 C

Additional Patterns: Second cubic polymorph known (see 00-004-0835)
Additional Patterns: To replace 00-022-1189.

References

Primary reference: Wes, S., Eysel W., Mineral.-Petrograph., Institut der Universitaet Heidelberg, Germany., *ICDD Grant-in-Aid*, (1992)

Peak list

No.	h	k	l	d [Å]	2Theta[deg]	I [%]
1	1	0	1	2.41197	37.249	60.0
2	0	1	2	2.08849	43.287	100.0
3	1	1	0	1.47733	62.854	30.0
4	1	0	4	1.47607	62.914	25.0
5	1	1	3	1.25955	75.406	14.0
6	2	0	2	1.20624	79.374	9.0
7	0	0	6	1.20460	79.504	4.0
8	0	2	4	1.04433	95.055	6.0
9	2	1	1	0.95882	106.909	4.0
10	2	0	5	0.95817	107.013	2.0
11	1	0	7	0.95761	107.104	2.0
12	1	2	2	0.93437	111.057	7.0
13	1	1	6	0.93363	111.188	7.0
14	2	1	4	0.85282	129.174	7.0
15	0	1	8	0.85187	129.443	3.0

Stick Pattern

