Pattern: PDF 31-0174 Radiation: 1.54060 Quality: Indexed

Formula Ba Ti O3
Name Barium Titanium Oxide
Name (mineral)
Name (common)

Lattice: Cubic
S.G.:

Mol. weight = 233.23
Volume [CD] = 65.5
Dx =
Dm =
I/Icor = -1.000

a = 4.03100
b =
c =
a/b = 1.00000
c/b = 1.00000

alpha =
beta =
gamma =
Z =

Sample Preparation: Sample was prepared by hydrolysis of titanium tetraisopropoxide in aqueous solution of barium hydroxide and has submicron size of particles. Absorbs about 6% of OH and alcoholic radicals. Metastable form. It changes to stable tetragonal form above 800 C

Primary Reference
Publication: Bull. Chem. Soc. Jpn.
Detail: volume 47, page 1168 (1974)
Authors: Naka, S. et al.

Radiation: CuKa
Wavelength: 1.54060
SS/FOM: 39.9 (0.025,11)

Filter: F
d-spacing:

d	2θ	I	h	k	l
4.04000	21.9836	14	1	0	0
2.85000	31.3619	100	1	1	0
2.32800	38.6450	30	1	1	1
2.01600	44.9268	35	2	0	0
1.80300	50.5841	10	2	1	0
1.64450	55.8622	25	2	1	1
1.42500	65.4437	15	2	2	0
1.34400	69.9389	5	3	0	0
1.27400	74.4046	15	3	1	0
1.21600	78.6133	5	3	1	1
1.16340	82.9221	4	2	2	2