



>>Entry Name: Barium sodium niobium oxide ($\text{Ba}_2\text{NaNb}_5\text{O}_{15}$)

Synonym(s): Barium sodium niobate ($\text{Ba}_2\text{NaNb}_5\text{O}_{15}$)

CAS Registry Number: 12323-03-4

$\text{Ba}_2\text{NaNb}_5\text{O}_{15}$

Molecular Formula: $\text{Ba}_2\text{NaNb}_5\text{O}_{15}$

Molecular Weight: 1002.167

Accurate Mass: 1003.255841

Percentage Composition: Ba 27.41%; Na 2.29%; Nb 46.35%; O 23.95%

General Statement: Disagreement in literature about space group

Source/Synthesis: Synth. from the solid soln. system $\text{NaNbO}_3/\text{BaNb}_2\text{O}_6$

Use/Importance: Tungsten-bronze ferroelectric

Physical Description: Solid

Melting Point: Mp 1483°

Aldrich: 41494-8

References:

Bobb, L.C. *et al.*, *J. Appl. Crystallogr.*, 1969, **2**, 189, (*struct*)

Scott, B.A. *et al.*, *Mater. Res. Bull.*, 1969, **4**, 107, (*synth, dta, struct*)

Burns, G. *et al.*, *Solid State Commun.*, 1969, **7**, 933, (*Raman*)

Ross, S.D., *J. Phys. (Paris)*, 1970, **3**, 1785, (*Raman, struct*)

Bobb, L.C. *et al.*, *Ferroelectrics*, 1971, **2**, 217, (*Raman*)

Toledano, J.C. *et al.*, *Ferroelectrics*, 1987, **73**, 249, (*use*)

Dolinsek, J. *et al.*, *Solid State Commun.*, 1989, **70**, 1077, (*Na-23 nmr*)

Shimazu, M. *et al.*, *Powder Diffr.*, 1990, **5**, 125, (*synth, struct*)