Bariomicrolite $Ba(Ta, Nb)_2(O, OH)_7$

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Crystal Data: Cubic. *Point Group:* $4/m\ \overline{3}\ 2/m$. As intergrowths with microlite; may be partially metamict.

Physical Properties: *Fracture:* [Uneven] (by analogy to microlite). *Tenacity:* [Brittle.] Hardness = 4.5–5 VHN = 485–498 D(meas.) = 5.68–5.80 D(calc.) = 5.51

Optical Properties: [Opaque.] *Color:* [Yellowish to orangish.] *Luster:* [Dull to resinous.] *Optical Class:* Isotropic.
R: 12.8–13.6

Cell Data: *Space Group:* $Fd3m$. a = 10.570(5) Z = 8

X-ray Powder Pattern: Chi-Chico, Brazil.
3.034 (100), 6.04 (80), 3.18 (65), 2.631 (60), 1.865 (60), 1.591 (45), 1.079 (40)

Chemistry:

	(1)		(1)		(1)
U_3O_8	1.68	As_2O_3	0.12	CaO	0.47
Ta_2O_5	71.59	Sb_2O_3	0.01	SrO	0.09
Nb_2O_5	5.87	Bi_2O_3	0.03	BaO	4.85
SiO_2	1.2	Ce_2O_3	0.45	Na_2O	< 0.5
TiO_2	1.21	FeO	0.93	Li_2O	< 0.1
ZrO_2	< 0.1	MnO	0.09	Ag_2O	0.01
ThO_2	0.19	CuO	0.06	Tl_2O	1.56
SnO_2	2.05	PbO	0.90	H_2O^+	6.9
Al_2O_3	0.42	MgO	< 0.1	Total	100.68

(1) Chi-Chico, Brazil; after deduction of microlite 3.68%, tantalite 0.26%, cassiterite 0.12%, quartz, and feldspar (with thallium considered a contaminant introduced during separation), corresponds to $(Ba, Fe, U, ...)_{\Sigma=0.31}(Ta, Nb, Ti, Sn)_{\Sigma=2.00}O_{5.32}(H_2O)_2$.

Mineral Group: Pyrochlore group, microlite subgroup; $Ba_A > 20\%$; $(Nb + Ta)_B > 2Ti_B$; $Ta_B \geq Nb_B$.

Occurrence: In a concentrate from alluvium derived from a pegmatite.

Association: Microlite, tantalite, cassiterite, quartz, feldspar.

Distribution: Found at Chi-Chico, São João del Rei, Minas Gerais, Brazil.

Name: Assigned by the IMA Committee on pyrochlore nomenclature for the predominant *barium* content and relation to *microlite* in the pyrochlore group.

Type Material: n.d.

References: (1) Hogarth, D.D. (1977) Classification and nomenclature of the pyrochlore group. Amer. Mineral., 62, 403–410, esp. 406–407 [rijkeboerite = bariomicrolite]. (2) van der Veen, A.H. (1963) A study of pyrochlore [rijkeboerite = bariomicrolite]. Verhandel. Kon. Nederlands Geol. Mijnbouwkundig Genootschap, Geol. Ser., 22, 188 p. (3) (1963) Amer. Mineral., 48, 1415 (abs. ref. 2).

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