

Crystal Data: Cubic. *Point group:* 432. As octahedral crystals or a combination of octahedral and rhombic dodecahedral crystals, to 1.5 mm.

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Conchoidal. Hardness = 5-6
D(meas.) = n.d. D(calc.) = 6.176

Optical Properties: Translucent. *Color:* Yellow; colorless in transmitted light. *Streak:* White.
Luster: Vitreous to resinous.
Optical Class: Isotropic. $n(\text{calc.}) = 2.010$

Cell Data: *Space Group:* P4₃32. $a = 10.4205(1)$ $Z = 8$

X-ray Powder Pattern: Volta Grande pegmatite, Nazareno, Minas Gerais, Brazil.
6.025 (100), 3.010 (73), 3.145 (15), 1.843 (8), 2.606 (7), 2.006 (7), 1.527 (5)

Chemistry:	(1)
Na ₂ O	0.36
CaO	15.64
SnO ₂	0.26
Nb ₂ O ₅	2.82
Ta ₂ O ₅	78.39
MnO	0.12
F	0.72
H ₂ O	[1.30]
<u>-O = F₂</u>	<u>0.30</u>
Total	99.31

(1) Volta Grande pegmatite, Nazareno, Minas Gerais, Brazil; average of 2 electron microprobe analyses supplemented by IR and Raman spectroscopy, H₂O calculated from structure; corresponds to (Ca_{1.48}□_{0.45}Na_{0.06}Mn_{0.01})_{Σ=2.00}(Ta_{1.88}Nb_{0.11}Sn_{0.01})_{Σ=2.00}O_{6.00}[(OH)_{0.76}F_{0.20}O_{0.04}]_{Σ=1.00}.

Mineral Group: Pyrochlore supergroup (general formula - A₂B₂X₆Y); microlite group (B = Ta⁵⁺).

Occurrence: In heavy mineral concentrates from a complex granitic pegmatite.

Association: Hydrokenomicrolite, fluorcalciumicrolite (in the same concentrate sample).

Distribution: From the Volta Grande pegmatite, Nazareno, Minas Gerais, Brazil.

Name: For a member of the *microlite* group with prefixes to indicate dominant OH⁻ (*hydroxy*) in the Y site and dominant Ca (*calcio*) in the A site.

Type Material: Geosciences Museum, University of São Paulo, Brazil (DR917) and the Mineral Museum, University of Arizona, Tucson, Arizona, USA (RRUFF Project R130269).

References: (1) Andrade, M.B., H. Yang, D. Atencio, R.T. Downs, N.V. Chukanov, M.H. Lemée-Cailleau, A.I.C. Persiano, A.E. Goeta, and J. Ellena (2017) Hydroxycalciumicrolite, Ca_{1.5}Ta₂O₆(OH), a new member of the microlite group from Volta Grande pegmatite, Nazareno, Minas Gerais, Brazil. *Mineral. Mag.*, 81(3), 555-564. (2) (2018) *Amer. Mineral.*, 103, 2046 (abs. ref. 1). (3) Atencio, D., M.B. Andrade, A.G. Christy, R. Gieré, and P.M. Kartashov (2010) The pyrochlore supergroup of minerals: nomenclature. *Can. Mineral.*, 48, 673-698.