

Crystal Data: Hexagonal, pseudomonoclinic. *Point Group:* $\bar{3} 2/m$. Rimming crystals of simpsonite, in turn rimmed by alumotantite; intergrown with microlite.

Physical Properties: *Fracture:* Uneven. Hardness = n.d. VHN = 1270 (40 g load). D(meas.) = n.d. D(calc.) = n.d. Strong yellow-green cathodoluminescence.

Optical Properties: Transparent. *Color:* Colorless, with slight yellowish tint. *Luster:* Adamantine.

Optical Class: Uniaxial. *Anisotropism:* Strong.

R₁–R₂: (486) 15.0–13.6, (589) 12.4–11.8, (656) 12.0–12.0

Cell Data: *Space Group:* $R\bar{3}c$. $a = 6.2092(1)$ $c = 36.619(1)$ $Z = 6$

X-ray Powder Pattern: Kola Peninsula, Russia.

3.02 (10b), 2.778 (9b), 1.556 (8), 1.548 (8), 3.06 (7), 2.474 (6b), 1.799 (6b)

Chemistry:	(1)	(2)	(3)
Nb ₂ O ₅	2.71	1.0	
Ta ₂ O ₅	91.26	94.3	93.45
PbO	0.87	0.6	
CaO	0.08	0.3	
Na ₂ O	4.69	3.1	6.55
K ₂ O		0.06	
Total	99.61	99.4	100.00

(1) Kola Peninsula, Russia; by electron microprobe, corresponding to (Na_{1.40}Pb_{0.04}Ca_{0.01})_{Σ=1.45} (Ta_{3.81}Nb_{0.19})_{Σ=4.00}O_{10.75}. (2) Alto do Giz pegmatite, Brazil; by electron microprobe, corresponding to (Na_{0.93}Ca_{0.04}Pb_{0.03}K_{0.01})_{Σ=1.01} (Ta_{3.93}Nb_{0.07})_{Σ=4.00}O_{10.54}. (3) Na₂Ta₄O₁₁.

Occurrence: In albite units of granite pegmatites.

Association: Simpsonite, alumotantite, microlite, sosedkoite.

Distribution: From Mt. Vasin-Myl'k, Vroni massif, Kola Peninsula, Russia. At the Alto do Giz pegmatite, near Parelhas, Rio Grande do Norte, Brazil.

Name: For sodium, NATrium, and TANTalum in the composition.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, Russia, 5518.

References: (1) Voloshin, A.V., Y.P. Men'shikov, and Y.A. Pakhomovskii (1981) Alumotantite and natrotantite, new tantalum minerals in granitic pegmatites. *Zap. Vses. Mineral. Obshch.*, 110, 338–345 (in Russian). (2) (1982) *Amer. Mineral.*, 67, 413 (abs. ref. 1). (3) Ercit, T.S., F.C. Hawthorne, and P. Černý (1985) The crystal structure of synthetic natrotantite. *Bull. Minéral.*, 108, 541–549.