

**Crystal Data:** Monoclinic. *Point Group:* 2/m. In rough crystals, equant, to 0.4 mm.

**Physical Properties:** *Fracture:* Conchoidal to uneven. *Tenacity:* Brittle. Hardness = 6–6.5 VHN = 1200 (40 g load). D(meas.) = 7.0 D(calc.) = 7.08 Weak yellow-green cathodoluminescence.

**Optical Properties:** Transparent. *Color:* Colorless, creamy pink to brownish pink when included by cassiterite; grayish white under reflected light. *Luster:* Adamantine. *Optical Class:* Biaxial; strong birefringence. *Dispersion:* Strong.  $n = > 1.9$  2V(meas.) = n.d. *Anisotropism:* Weak.

R<sub>1</sub>–R<sub>2</sub>: (486) 18.6–18.5, (553) 18.5–18.3, (589) 18.6–18.3, (656) 19.1–19.0

**Cell Data:** *Space Group:* P2<sub>1</sub>/c.  $a = 7.444$   $b = 5.044$   $c = 15.255$   $\beta = 107.18^\circ$   $Z = 4$

**X-ray Powder Pattern:** “Eastern Kazakhstan”.  
2.96 (100), 1.722 (80), 1.451 (80), 1.772 (60b), 4.13 (5), 2.490 (5), 1.900 (5)

<b>Chemistry:</b>	(1)
	Nb <sub>2</sub> O <sub>5</sub> 24.96
	Ta <sub>2</sub> O <sub>5</sub> 71.55
	SnO <sub>2</sub> 0.57
	Li <sub>2</sub> O 2.33
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	Total 99.41

(1) “Eastern Kazakhstan”; by electron microprobe, Li<sub>2</sub>O by AA; corresponds to Li<sub>0.92</sub>(Ta<sub>1.90</sub>Nb<sub>1.10</sub>Sn<sub>0.02</sub>)<sub>Σ=3.02</sub>O<sub>8</sub>.

**Occurrence:** In microcline-albite zones of granite pegmatites.

**Association:** Lepidolite, apatite, albite, thoreaulite, cassiterite, rankamaite, irtyshite (“Eastern Kazakhstan”); cassiterite, calciotantite, microlite, thoreaulite, cesplumtantite (Manono pegmatite, Congo).

**Distribution:** From the Ognevka tantalum deposit, Kalba Mountains, eastern Kazakhstan. In the Manono pegmatite, Katanga Province, Congo (Shaba Province, Zaire).

**Name:** For LITHium and TANTalum in its composition.

**Type Material:** Mining Institute, St. Petersburg, 1655/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 82543.

**References:** (1) Voloshin, A.V., Y.A. Pakhomovskii, V.I. Stepanov, and F.N. Tyusheva (1983) Lithiotantite Li(Ta, Nb)<sub>3</sub>O<sub>8</sub> – a new mineral from granite pegmatites in Eastern Kazakhstan. Mineral. Zhurnal, 5(1), 91–95 (in Russian with English abs.). (2) (1984) Amer. Mineral., 69, 1191–1192 (abs. ref. 1).