

Crystal Data: Tetragonal. *Point Group:* 4/m 2/m 2/m. As rosettelike intergrowths and grains.

Physical Properties: *Cleavage:* Perfect on {001}, distinct on {100}. *Hardness* = 3–4
D(meas.) = n.d. D(calc.) = 3.15

Optical Properties: Transparent to translucent. *Color:* Yellow-green to greenish gray.
Luster: Vitreous to adamantine.
Optical Class: Uniaxial (-). $\omega = 1.756(2)$ $\epsilon = 1.680(2)$

Cell Data: *Space Group:* P4/nmm. $a = 6.50(1)$ $c = 5.07(1)$ $Z = 2$

X-ray Powder Pattern: Lovozero massif, Russia.
2.709 (100), 5.05 (80), 1.689 (70), 2.349 (60), 1.1001 (60), 3.96 (50), 1.611 (50)

Chemistry:	(1)	(2)
SiO ₂	29.77	29.14
TiO ₂	38.93	39.62
Nb ₂ O ₅	0.72	0.18
Ta ₂ O ₅	0.12	
FeO	0.52	1.35
MnO	0.31	0.37
Na ₂ O	30.32	29.47
Total	100.69	100.13

(1) Lovozero massif, Russia; by electron microprobe, average of analyses of four grains; corresponding to Na_{1.99}(Ti_{0.99}Mn_{0.01}Fe_{0.01}Nb_{0.01})_{Σ=1.02}Si_{1.01}O₅. (2) Do.; by electron microprobe.

Polymorphism & Series: Dimorphous with paranatisite.

Occurrence: In natrolite-ussingite veins cutting alkalic rocks in a differentiated alkalic massif.

Association: Chkalovite, aegirine, vuonnemite.

Distribution: On Mt. Karnasurt, Lovozero massif, Kola Peninsula, Russia.

Name: For sodium, NAtrium, TITanium, and SIlicon in the composition.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 3393; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia; The Natural History Museum, London, England, 1994,16.

References: (1) Men'shikov, Y.P., Y.A. Pakhomovskii, E.A. Goiko, I.V. Bussen, and A.N. Mer'kov (1975) A natural tetragonal titanosilicate of sodium, natisite. Zap. Vses. Mineral. Obshch., 104, 314–317 (in Russian). (2) (1976) Amer. Mineral., 61, 339 (abs. ref. 1). (3) Khomyakov, A.P., L.I. Polezhaeva, and E.V. Sokolova (1992) Paranatisite Na₂TiSiO₅ – a new mineral. Zap. Vses. Mineral. Obshch., 121(6), 133–136 (in Russian).