

Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As interstitial grains, to 1 mm, and aggregates, to 5 mm.

Physical Properties: *Fracture:* Conchoidal. *Hardness* = 5 *D*(meas.) = 3.12(5)
D(calc.) = 3.07

Optical Properties: Transparent to translucent. *Color:* Yellow, yellow-orange, orange-brown. *Streak:* White. *Luster:* Vitreous to adamantine.
Optical Class: Biaxial (+). *Pleochroism:* Weak; X = Y = brown; Z = yellow. *Orientation:* X = b; Y = a; Z = c. *Dispersion:* r > v, weak. α = 1.740(2) β = 1.741(2) γ = 1.765(2)
2*V*(meas.) = 20(1)° 2*V*(calc.) = 23°

Cell Data: *Space Group:* Pmma. a = 9.827(3) b = 9.167(2) c = 4.799(2) Z = 4

X-ray Powder Pattern: Khibiny massif, Russia.
2.748 (100), 1.443 (35), 1.475 (33), 1.720 (30), 1.680 (30), 2.257 (25), 1.660 (22)

Chemistry:	(1)
SiO ₂	29.69
TiO ₂	35.70
Nb ₂ O ₅	0.14
FeO	2.61
MnO	0.39
CaO	0.05
Na ₂ O	28.04
F	1.0
H ₂ O	1.6
-O = F ₂	0.4
Total	98.82

(1) Khibiny massif, Russia; by electron microprobe, average of three analyses, H₂O by coulometry; corresponds to (Na_{1.83}Mn_{0.01})_{Σ=1.84}(Ti_{0.90}Fe_{0.07})_{Σ=0.97}Si[O_{5.58}(OH)_{0.36}F_{0.11}]_{Σ=5.04}.

Polymorphism & Series: Dimorphous with natisite.

Occurrence: In ultra-alkalic pegmatites in a differentiated alkalic massif.

Association: Nepheline, potassic feldspar, aegirine, aenigmatite, natisite, lamprophyllite, lorenzenite, shcherbakovite, delhayelite, villiaumite, lepidomelane.

Distribution: On Mts. Yukspor and Rasvumchorr, Khibiny massif, Kola Peninsula, Russia.

Name: From the Greek *para*, for *near*, and its relation to *natisite*.

Type Material: Mining Institute, St. Petersburg, 2055/1-2; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 545/3.

References: (1) Khomyakov, A.P., L.I. Polezhaeva, and E.V. Sokolova (1992) Paranatisite Na₂TiSiO₅ – a new mineral. *Zap. Vses. Mineral. Obshch.*, 121(6), 133–137 (in Russian).
(2) (1994) *Amer. Mineral.*, 79, 764 (abs. ref. 1).