Terskite $Na_4ZrSi_6O_{15}(OH)_2 \cdot H_2O$

Crystal Data: Orthorhombic, pseudotetragonal. *Point Group:* $mm2$. Crystals platy, to 3.5 mm.

Physical Properties: Hardness = ∼5 VHN = 426–519 (40 g load). D(meas.) = 2.71 D(calc.) = 2.74 Fluoresces bright green or very pale yellow under SW UV.

Optical Properties: Semitransparent. *Color:* Pale lilac; nearly colorless in thin section. *Luster:* Vitreous.
Optical Class: Biaxial (–). *Dispersion:* $r > v$, weak. $\alpha = 1.576(2)$ $\beta = 1.582(2)$ $\gamma = 1.584(2)$ 2V(meas.) = 53°

Cell Data: *Space Group:* $Pnc2$. $a = 14.195(8)$ $b = 14.750(5)$ $c = 7.511(2)$ Z = 4

X-ray Powder Pattern: Mt. Alluaiv, Russia.
3.324 (100), 3.299 (100), 3.257 (100), 3.186 (80), 2.615 (70), 3.126 (60), 2.565 (60)

Chemistry:

	(1)
SiO_2	56.3
ZrO_2	17.8
MnO	0.4
Na_2O	19.0
LOI	6.37
Total	99.87

(1) Mt. Alluaiv, Russia; by electron microprobe, average of analyses on three grains, loss on ignition taken as H_2O; corresponds to $(Na_{3.97}Mn_{0.04})_{\Sigma=4.01}Zr_{0.94}Si_{6.06}O_{16.02} \cdot 2.29H_2O$.

Occurrence: In veins in pegmatites in alkalic massifs.

Association: Potassic feldspar, sodalite, davyne, arfvedsonite, aegirine, eudialyte (Mt. Alluaiv, Russia); villiaumite, ussingite, gmelinite, tetranatrolite, epistolite, eudialyte, polylithionite, albite (Mont Saint-Hilaire, Canada); eudialyte, microcline, zakharovite, aegirine, nenadkevichite, mangan-neptunite, shkatulkaite (Saint-Amable, Canada).

Distribution: On Mts. Alluaiv and Karnasurt, Lovozero massif, and on Mt. Rasvumchorr, Khibiny massif, Kola Peninsula, Russia. In the Ilímaussaq intrusion, southern Greenland. From Mont Saint-Hilaire and near Saint-Amable, Quebec, Canada.

Name: For the Tersk shore of the White Sea, southeastern Kola Peninsula, Russia.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 5778/1; Mineralogical Museum, St. Petersburg University, St. Petersburg, 17090; Mining Institute, St. Petersburg, 1034/1; Vernadsky Geological Museum, Moscow, 57773; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 82755.

References: (1) Khomyakov, A.P., E.I. Semenov, A.A. Voronkov, and G.N. Nechelyustov (1983) Terskite $Na_4ZrSi_6O_{16} \cdot 2H_2O$ – a new mineral. Zap. Vses. Mineral. Obshch., 112, 226–232 (in Russian). (2) (1984) Amer. Mineral., 69, 212 (abs. ref. 1). (3) Pudovkina, Z.V. and N.M. Chernitsova (1991) Crystal structure of terskite $Na_4Zr[H_4Si_6O_{18}]$. Doklady Acad. Nauk SSSR, 316, 645–649 (in Russian). (4) (1992) Amer. Mineral., 77, 452 (abs. ref. 3). (5) Mandarino, J.A. and V. Anderson (1989) Monteregian Treasures. Cambridge Univ. Press, 195.