

Crystal Data: Tetragonal. *Point Group:* $\bar{4} 2m$. Forms roundish aggregates to 0.2 mm consisting of blocky prismatic crystals to 0.03 mm.

Physical Properties: *Cleavage:* n.d. *Tenacity:* Brittle. *Fracture:* n.d. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 3.663

Optical Properties: Translucent. *Color:* Pale yellowish, pale beige, white. *Luster:* Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.654(2)$ $\epsilon = 1.653(2)$

Cell Data: *Space Group:* $P\bar{4} m2$ (by analogy to synthetic δ -Al₂O₃). $a = 5.608(1)$ $c = 23.513(7)$
 $Z = 16$

X-Ray Diffraction Pattern: Ploskiy Tolbachik volcano, Kamchatka peninsula, Russia.
1.396 (100), 1.993 (81), 2.728 (61), 2.424 (51), 2.408 (49), 1.954 (48), 2.281 (42)

Chemistry:	(1)
Al ₂ O ₃	99.74
SiO ₂	0.04
Total	99.78

(1) Ploskiy Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia; average electron microprobe analysis; corresponding to (Al_{0.67}□_{0.33})Al₂O₄.

Polymorphism & Series: A dimorph of corundum.

Mineral Group: Spinel supergroup, oxyspinel group, spinel subgroup.

Occurrence: In pores of basaltic rock and scoria altered by volcanic fumarolic gas.

Association: n.d.

Distribution: Near Ploskiy Tolbachik volcano, Kamchatka peninsula, Far-Eastern Region, Russia.

Name: From the name of the synthetic compound δ -Al₂O₃.

Type Material: A.E. Fersman Mineralogical Museum, RAS, Moscow, Russia (4767/1).

References: (1) Pekov, I.V., L.P. Anikin, N.V. Chukanov, D.I. Belakovskiy, V.O. Yapaskurt, E.G. Sidorov, S.N. Britvin, and N.V. Zubkova (2019) Deltalumite, a new natural modification of alumina with spinel-type structure. *Zap. Ross. Mineral. Obshch.*, 148(5), 45-58 (in Russian with English abs.).