

Crystal Data: Orthorhombic (?). *Point Group:* n.d. Platy lamellar crystals, to 1 mm, in aggregates.

Physical Properties: Hardness = 2 D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* Light blue.

Optical Class: Biaxial (-). *Pleochroism:* X = light blue; Y = Z = greenish blue.

Dispersion: $r < v$. $\alpha = 1.640$ $\beta = 1.690$ $\gamma = 1.690$ 2V(meas.) = Small.

Cell Data: *Space Group:* n.d. Z = n.d.

X-ray Powder Pattern: n.d.

Chemistry:

	(1)	(2)
As ₂ O ₅	41.43	43.08
CuO	37.32	39.76
CaO	7.33	7.01
Cl	2.7	2.21
H ₂ O		8.44
-O = Cl ₂	[0.6]	0.50
insol.	1.66	
Total	[89.84]	100.00

(1) Khovu-Aksy deposit, Russia. (2) Ca₂Cu₈(AsO₄)₆Cl(OH)•7H₂O.

Occurrence: Found in the zone of oxidation of copper bearing ores.

Association: n.d.

Distribution: From the Khovu-Aksy Ni-Co deposit, Tuva, Siberia, Russia.

Name: To honor Aleksei Vasil'evich Shubnikov (1887–1970), Director of the Crystallographic Institute, Russian Academy of Sciences, Moscow, Russia.

Type Material: Mining Institute, St. Petersburg, 456/1–3; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 57262.

References: (1) Nefedov, Y.I. (1953) [Report on new minerals] in: V.A. Mokievsky, The scientific session of the Federov Institute together with the All-Union Mineralogical Society. Zap. Vses. Mineral. Obshch., 82, 311–317 (in Russian). (2) (1955) Amer. Mineral., 40, 551–552 (abs. ref. 1). (3) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union, 186.