Crystal Data: Orthorhombic (?). Point Group: n.d. As radiating to finely felted fibers.

Hardness = n.d. D(meas.) = 4.03 D(calc.) = n.d.Physical Properties:

Optical Properties: Transparent to translucent. Color: Yellowish green to bright yellow.

Luster: Vitreous to silky.

Optical Class: Biaxial (+).  $\alpha = 1.616$   $\beta = \text{n.d.}$   $\gamma = 1.622-1.623$   $2\text{V(meas.)} = \sim 35^{\circ}$ 

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

X-ray Powder Pattern: Kurumsak, Kazakhstan. (ICDD 29-571, corrected lines).  $1.53\ (100),\ 3.91\ (75),\ 2.61\ (50),\ 2.28\ (38),\ 4.91\ (25),\ 1.42\ (25),\ 2.42\ (13)$ 

Chemistry:

	(1)
$SiO_2$	13.82
$Al_2O_3$	20.51
$\text{Fe}_2\text{O}_3$	2.15
$V_2O_5$	8.50
NiO	7.33
CuO	3.05
ZnO	17.55
MgO	0.92
CaO	1.24
$\mathrm{H_2O}$	23.25
$\overline{SO_3}$	1.15
Total	99.47

## (1) Kurumsak, Kazakhstan.

**Occurrence:** In bituminous schists in the walls of cavities and open fissures.

Association: n.d.

**Distribution:** From the Kurumsak vanadium deposit, near Dzhambul, Kara-Tau Mountains, Kazakhstan.

Name: For the locality at Kurumsak, Kazakhstan.

Type Material: Mining Institute, St. Petersburg, Russia, 1273/1.

References: (1) Ankinovich, E.A. (1954) [title unknown] Izv. Akad. Nauk Kazakhstan SSR, 134, Ser. Geol. 19, 116. (2) Bohnshtedt-Kupletskaya, E.N. (1955) Zap. Vses. Mineral. Obshch., 84, 343–344 (abs. ref. 1, in Russian). (3) (1957) Mineral. Abs., 13, 207 (abs. ref. 1). (4) (1957) Amer. Mineral., 42, 583–584 (abs. ref. 2).