

# Nekrasovite

# $\text{Cu}_{26}\text{V}_2(\text{Sn}, \text{As}, \text{Sb})_6\text{S}_{32}$

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**Crystal Data:** Cubic. *Point Group:*  $\bar{4}3m$ . As small rounded grains, to less than 1  $\mu\text{m}$ .

**Physical Properties:** *Tenacity:* Brittle. Hardness = n.d. VHN = 286–338 (20 g load).  
D(meas.) = n.d. D(calc.) = 4.62

**Optical Properties:** Opaque. *Color:* Pale brown with a pink shadow.

R: (400) —, (420) —, (440) 22.6, (460) 23.8, (480) 25.0, (500) 25.6, (520) 26.0, (540) 26.4, (560) 26.9, (580) 27.4, (600) 28.0, (620) 28.6, (640) 29.3, (660) 29.6, (680) 29.9, (700) 30.0

**Cell Data:** *Space Group:*  $P\bar{4}3n$ .  $a = 10.73(5)$   $Z = 1$

**X-ray Powder Pattern:** Khayragatsch deposit, Uzbekistan.  
3.09 (10), 1.894 (8), 1.617 (6), 1.230 (5), 1.096 (3), 1.033 (3), 2.68 (2)

## Chemistry:

	(1)	(2)
Cu	44.18	39.9
Fe	4.11	0.2
Zn	0.10	7.4
V	1.93	3.1
Sn	11.40	21.2
As	3.03	
Sb	4.20	
Se	0.32	
S	29.86	29.1
Total	99.13	100.9

(1) Khayragatsch deposit, Uzbekistan; by electron microprobe, corresponding to  $(\text{Cu}_{23.97}\text{Fe}_{1.98}\text{Zn}_{0.05})_{\Sigma=26.00}(\text{V}_{1.31}\text{Fe}_{0.58})_{\Sigma=1.89}(\text{Sn}_{3.31}\text{As}_{1.39}\text{Sb}_{1.19}\text{Se}_{0.11})_{\Sigma=6.00}\text{S}_{32.11}$ . (2) Bisbee, Arizona, USA; by electron microprobe, corresponding to  $(\text{Cu}_{21.91}\text{Zn}_{3.95}\text{Fe}_{0.12})_{\Sigma=25.98}\text{V}_{2.12}\text{Sn}_{6.23}\text{S}_{31.66}$ .

**Mineral Group:** Colusite group.

**Occurrence:** In ore aggregates within propylitic andesites and dacites (Khayragatsch deposit, Uzbekistan).

**Association:** Tetrahedrite–tennantite, luzonite–famatinitite, pyrite, mawsonite, chalcopyrite, emplectite, laitakarite, bismuth, calcite, quartz, barite (Khayragatsch deposit, Uzbekistan).

**Distribution:** From the Khayragatsch gold deposit, Chatkal-Kuramin Mountains, eastern Uzbekistan [TL]. In the USA, in the Campbell mine, Bisbee, Cochise Co., Arizona. At Neves-Corvo, Portugal. From the Persenk district, Rhodopes Mountains, Bulgaria.

**Name:** To honor Ivan Yakovlevich Nekrasov (1929– ), Russian mineralogist, Institute of Experimental Mineralogy, Moscow, Russia.

**Type Material:** A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 84283.

**References:** (1) Kolavalerker, V.A., T.L. Evstigneeva, V.S. Malov, N.V. Trubkin, A.I. Gorshkov, and V.R. Geinke (1984) Nekrasovite,  $\text{Cu}_{26}\text{V}_2\text{Sn}_6\text{S}_{32}$ , a new mineral of the colusite group. *Mineral. Zhurnal*, 6(2), 88–97 (in Russian). (2) (1985) *Amer. Mineral.*, 70, 437 (abs. ref. 1). (3) Criddle, A.J. and C.J. Stanley, Eds. (1993) *Quantitative data file for ore minerals*, 3rd ed. Chapman & Hall, London, 390.