

Vladimirite



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Crystal Data: Monoclinic. *Point Group:* $2/m$. Acicular crystals, in cross-fiber veinlets and spherulites, to 1 mm. *Cleavage:* One, good.

Physical Properties: Hardness = 3.5 D(meas.) = 3.12–3.21 D(calc.) = 3.17

Optical Properties: Translucent. *Color:* Pale rose to colorless. *Luster:* Vitreous. *Optical Class:* Biaxial (+). *Orientation:* $Z \wedge c = 37^\circ$. *Dispersion:* $r > v$, strong. $\alpha = 1.650$
 $\beta = 1.654$ $\gamma = 1.661$ $2V(\text{meas.}) = 70^\circ$

Cell Data: *Space Group:* $P2_1/c$. $a = 5.81$ $b = 10.19$ $c = 22.7$ $\beta = 82^\circ 41'$ $Z = 3$

X-ray Powder Pattern: Tuva, Russia.

4.09 (10), 2.78 (10), 3.01 (6), 1.853 (6), 3.27 (5), 2.56 (5), 2.11 (5)

Chemistry:

	(1)	(2)	(3)
As ₂ O ₅	53.44	52.1	54.20
MgO	0.00		
CaO	33.65	33.2	33.06
H ₂ O	12.63	12.1	12.74
Total	99.72	97.4	100.00

(1) Tuva, Russia. (2) Irhtem mine, Morocco. (3) $\text{Ca}_5(\text{AsO}_4)_2(\text{AsO}_3\text{OH})_2 \cdot 5\text{H}_2\text{O}$.

Occurrence: A rare secondary mineral in the oxidized zone of arsenic-bearing mineral deposits.

Association: Picroparmacolite, erythrite, aragonite (Tuva, Russia).

Distribution: From the Vladimirovskoye cobalt deposit, Altai Mountains, and the Khovu-Aksy Ni–Co deposit, Tuva, Siberia, Russia. In the Bauhaus district, Richelsdorf Mountains, Hesse, Germany. From the Irhtem (Ightem) mine, Bou Azzer district, Morocco. In the USA, at the Mohawk mine, Keweenaw Co., Michigan.

Name: For its first-noted occurrence in the Vladimirovskoye deposit, Russia.

Type Material: Mining Institute, St. Petersburg, Russia, 1220/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 57263.

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 (abs. ref. 1). (3) Pierrot, R. (1964) Contribution à la minéralogie des arséniates calciques et calcomagnésien naturels. Bull. Soc. fr. Minéral., 87, 169–211 (in French). (4) Yakhontova, L.K. and T.I. Stolyarova (1970) New data on vladimirite. Zap. Vses. Mineral. Obshch., 99, 362–364 (in Russian). (5) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union, 230.