

Crystal Data: Cubic. *Point Group:* $4/m\bar{3}2/m$. As the outer portions of cubic suessite crystals, skeletal, to 0.3 mm; in spheroidal aggregates.

Physical Properties: *Fracture:* Irregular. Hardness = > 9 VHN = 2290–2230 (100 g load). D(meas.) = n.d. D(calc.) = 10.01

Optical Properties: Opaque. *Color:* Dark gray. *Luster:* Metallic.

Optical Class: Isotropic.

R: (440) 46.2, (460) 46.4, (480) —, (500) 47.2, (520) 47.2, (540) 47.2, (560) 47.4, (580) 47.5, (600) 47.7, (620) 47.9, (640) 48.4, (660) 49.7, (680) 50.3, (700) 50.6

Cell Data: *Space Group:* $Fm\bar{3}m$. $a = 4.319(5)$ $Z = 8$

X-ray Powder Pattern: Chinorsaisk massif, Tadzhikistan.

2.163 (10), 1.299 (10), 1.535 (8), 2.504 (6), 1.247 (4), 1.079 (2)

Chemistry:

	(1)
Si	0.10
Ti	69.04
Fe	1.71
V	6.74
C	[20.05]
Total	[97.64]

(1) Chatkal Range, Russia; by electron microprobe, average of five analyses, C calculated; corresponding to $(\text{Ti}_{0.90}\text{V}_{0.08}\text{Fe}_{0.02})_{\Sigma=1.00}\text{C}_{1.04}$.

Occurrence: In amygdaloidal basaltic porphyries (Chatkal Range, Russia); in spheroidal groups in granodiorites that have undergone silica metasomatism (Chinorsaisk massif, Tadzhikistan).

Association: Suessite (Chatkal Range, Russia); magnetite, iron, carbonaceous material (Chinorsaisk massif, Tadzhikistan).

Distribution: From undefined localities [Ir-Tash stream basin] in the Arashan Mountains, Chatkal Range, and in the Chinorsaisk massif, Zeravshan Range, Tadzhikistan.

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

References: (1) Novgorodova, M.I., R.G. Yusupov, M.T. Dmitrieva, A.I. Tsepin, A.V. Sivtsov, and A.I. Gorshkov (1984) Khamrabaevite, (Ti,V,Fe)C, a new mineral. *Zap. Vses. Mineral. Obshch.*, 113, 697–703 (in Russian). (2) (1985) *Amer. Mineral.*, 70, 1329 (abs. ref. 1). (3) (1986) *Mineral. Abs.*, 37, 98 (abs. ref. 1). (4) Bowman, A.L. (1961) The variation of lattice parameter with carbon content of tantalum carbide. *J. Phys. Chem.*, 65, 1596–1602.