

**Maslovite****(Pt, Pd)(Bi, Te)<sub>2</sub>**

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**Crystal Data:** Cubic. *Point Group:* 23. As elongated grains, which may be rounded, to 200  $\mu\text{m}$ .

**Physical Properties:** Hardness = n.d. VHN = 262–388 (20 g load), inversely proportional to Pd content. D(meas.) = n.d. D(calc.) = 11.51–11.74

**Optical Properties:** Opaque. *Color:* In polished section, pale gray with a lilac hue.  
*Luster:* Metallic.

R: (400) —, (420) —, (440) 55.9, (460) 55.2, (480) 55.0, (500) 55.5, (520) 56.0, (540) 56.1, (560) 55.9, (580) 55.9, (600) 56.1, (620) 56.3, (640) 56.8, (660) 57.1, (680) 57.5, (700) 58.4

**Cell Data:** Space Group: *P*2<sub>1</sub>3. *a* = 6.689(7) Z = 4

**X-ray Powder Pattern:** Oktyabr mine, Russia.  
3.01 (10), 2.71 (8), 2.02 (6), 1.788 (3), 2.36 (2), 1.852 (2), 1.286 (2)

<b>Chemistry:</b>	(1)	(2)	(3)
Pt	26.6	21.0	36.69
Pd	5.6	10.6	
Pb	0.0	0.0	
Bi	53.0	49.0	39.31
Sb	1.6	1.2	
Te	15.7	19.05	24.00
Total	102.5	101.9	100.00

(1) Oktyabr mine, Russia; by electron microprobe, corresponding to  $(\text{Pt}_{0.71}\text{Pd}_{0.27})_{\Sigma=0.98}(\text{Bi}_{1.31}\text{Te}_{0.64}\text{Sb}_{0.07})_{\Sigma=2.02}$ . (2) Do.; corresponding to  $(\text{Pt}_{0.53}\text{Pd}_{0.49})_{\Sigma=1.02}(\text{Bi}_{1.16}\text{Te}_{0.78}\text{Sb}_{0.05})_{\Sigma=1.99}$ . (3) PtBiTe.

**Mineral Group:** Pyrite group.

**Occurrence:** In galena-rich portions of massive cubanite-chalcopyrite and mooihoeekite ores.

**Association:** Altaite, sobolevskite, moncheite, michenerite, hessite, froodite, paolovite, tatyanaite, sperrylite, atokite–rustenbergite, galena, chalcopyrite, cubanite, mooihoeekite.

**Distribution:** From the Oktyabr mine, Noril'sk region, western Siberia, Russia [TL]. At the Rustenburg mine, in the Merensky Reef, Bushveld complex, Transvaal, South Africa.

**Name:** Honors Georgii Dmitrievich Maslov (1915–1968), geologist, one of the discoverers of the Talnakh deposits.

**Type Material:** Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia.

**References:** (1) Kovalenker, V.A., V.D. Begizov, T.L. Evstigneeva, N.V. Troneva, and V.A. Ryabikin (1979) Maslovite, PtBiTe: a new mineral from the Oktyabr copper-nickel deposit. *Geol. Rudn. Mestorozhd.*, 21, 94–104 (in Russian). (2) (1980) Amer. Mineral., 65, 406–407 (abs. ref. 1). (3) Bayliss, P. (1989) Crystal chemistry of pyrite-group minerals. *Amer. Mineral.*, 74, 1168–1176.