

**Crystal Data:** Orthorhombic. *Point Group:*  $2/m\ 2/m\ 2/m$ . As irregular grains to 2 mm; in dendritic aggregates.

**Physical Properties:** *Cleavage:* None. *Fracture:* n.d. *Tenacity:* Brittle. Hardness = ~5 VHN = 468 (20 g load). D(meas.) = n.d. D(calc.) = 6.108

**Optical Properties:** [Opaque.] *Color:* Yellow-gray, white with a beige tint in reflected light. *Streak:* n.d. *Luster:* Metallic.

*Optical Class:* Distinctly anisotropic from yellow-gray to grayish blue.

$R_1$ - $R_2$ : (400) 42.7-40.8, (420) 41.9-40.0, (440) 41.5-39.8, (460) 41.6-39.9, (470) 41.65-40.0, (480) 41.7-40.1, (500) 42.0-40.6, (520) 42.2-40.7, (540) 42.7-41.5, (546) 42.9-41.7, (560) 43.3-42.1, (580) 43.9-42.7, (589) 44.2-43.0, (600) 44.5-43.4, (620) 45.2-44.3, (640) 45.9-45.2, (650) 46.3-45.6, (660) 46.6-46.0, (680) 47.2-46.9, (700) 48.0-47.7

**Cell Data:** Space Group: *Pnma*.  $a = 5.099(2)$   $b = 3.251(2)$   $c = 5.695(2)$   $Z = 4$

**X-ray Powder Pattern:** Halamish Wadi, Southern Negev Desert, Israel.

1.895 (100), 2.831 (75), 1.975 (47), 2.477 (46), 1.632 (45), 2.548 (22), 1.779 (19)

Chemistry:	(1)	(2)
Ni	0.88	
Fe	63.82	64.43
P	35.56	35.67
Total	100.26	100.00

(1) Halamish Wadi, Southern Negev Desert, Israel; average electron microprobe analysis; corresponds to  $(\text{Fe}_{0.99}\text{Ni}_{0.01})_{\Sigma=1.00}\text{P}_{1.00}$ . (2) FeP.

**Occurrence:** In a phosphide assemblage related to the Fe-Ni-P system in pyrometamorphic rocks (Haturim Formation).

**Association:** Zuktamrurite, transjordanite, transjordanite, halamishite.

**Distribution:** At the Halamish Wadi, Haturim Basin, southern Negev Desert, Israel.

**Name:** Honors Mikhail Nikolaevich Murashko (b. 1952), for his contributions to the mineralogy of the Haturim Formation.

**Type Material:** Mineralogical Museum, Mining Institute, St. Petersburg, Russia (MGS 2211/1).

**References:** (1) Britvin, S.N., Y. Vapnik, Y.S. Polekhovskiy, S.V. Krivovichev, M.G. Krzhizhanovskaya, L.A. Gorelova, O.S. Vereshchagin, V.V. Shilovskikh, and A.N. Zaitsev (2019) Murashkoite, FeP, a new terrestrial phosphide from pyrometamorphic rocks of the Haturim Formation, South Levant. *Mineralogy and Petrology*, 113(2), 237-248. (2) (2020) *Amer. Mineral.*, 105(10), 1601-1603 (abs. ref. 1).