

Crystal Data: Hexagonal. *Point Group:* 3 or $\bar{3}$. As aggregates of micron-sized grains, to 2 mm, also as overgrowths.

Physical Properties: *Cleavage:* None. *Fracture:* n.d. *Tenacity:* Brittle. Hardness = 3 VHN = 99.9 (25 g load). D(meas.) = n.d. D(calc.) = 7.799

Optical Properties: Opaque. *Color:* Light gray to steel gray, white in reflected light. *Streak:* Black. *Luster:* Metallic.

Optical Class: Isotropic.

R: (400) 42.3, (420) 42.6, (440) 43.0, (460) 43.0, (470) 43.0, (480) 43.0, (500) 42.8, (520) 42.6, (540) 42.4, (546) 42.3, (560) 42.0, (580) 41.6, (589) 41.4, (600) 41.3, (620) 40.8, (640) 40.6, (650) 40.4, (660) 30.90, (680) 39.6, (700) 39.2

Cell Data: *Space Group:* R3 or $R\bar{3}$. $a = 15.80(1)$ $c = 19.57(6)$ $Z = 15$

X-ray Powder Pattern: Prasolovskoe deposit, Kunashir Island, Kuril arc, Russia. 2.201 (100), 2.996 (50), 2.510 (30), 2.079 (30), 3.727 (20), 2.152 (20), 2.046 (20)

| Chemistry: | (1) | (2) |
|------------|-------|--------|
| Ag | 63.71 | 65.14 |
| Au | 0.29 | |
| Te | 29.48 | 28.90 |
| Se | 5.04 | 5.96 |
| S | 0.07 | |
| Total | 98.71 | 100.00 |

(1) Prasolovskoe deposit, Kunashir Island, Kuril arc, Russia; average of 7 electron microprobe analyses, corresponding to $(\text{Ag}_{7.97}\text{Au}_{0.02})_{\Sigma=7.99}\text{Te}_{3.00}(\text{Se}_{0.86}\text{Te}_{0.12}\text{S}_{0.03})_{\Sigma=1.01}$. (2) $\text{Ag}_8\text{Te}_3\text{Se}$.

Occurrence: In hydrothermal Au-Ag quartz veins cutting calcalkaline volcanic rocks.

Association: Tetrahedrite, native gold, hessite, sylvanite, petzite.

Distribution: Prasolovskoe epithermal Au-Ag deposit, Kunashir Island, Kuril arc, Russia.

Name: For the islands (Kuril arc) on which the first specimens were collected.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia (3717/1).

References: (1) Kovalenker, V.A., O.Yu. Plotinskaya, C.J. Stanley, A.C. Roberts, A.M. McDonald, and M.A. Cooper (2010) Kurilite - $\text{Ag}_8\text{Te}_3\text{Se}$ - a new mineral from the Prasolovskoe deposit, Kuril islands, Russian Federation. *Mineralogical Magazine*, 74, 463-468. (2) (2014) *Amer. Mineral.*, 99, 554 (abs. ref. 1).