

**Crystal Data:** Hexagonal. *Point Group:* 6/m 2/m 2/m. As lath-shaped grains to 20  $\mu\text{m}$ .

**Physical Properties:** *Cleavage:* Perfect on {0001}. *Tenacity:* Brittle. *Fracture:* n.d. Hardness = ~2 VHN = 73.4-111.7, 92 average (10 g load on synthetic Ni<sub>2</sub>SbTe<sub>2</sub>). D(meas.) = 7.79 D(calc.) = 7.88

**Optical Properties:** Opaque. *Color:* Silver grey; white-cream in reflected light. *Streak:* n.d. *Luster:* Metallic.

*Optical Class:* Anisotropic, weakly bireflectant. *Pleochroism:* Weak, pale light brown to pale brown. R<sub>1</sub>-R<sub>2</sub>: (470) 47.5-52.5, (546) 49.7-56.1, (589) 51.7-59.3, (650) 53.3-60.6 (synthetic Ni<sub>2</sub>SbTe<sub>2</sub>)

**Cell Data:** *Space Group:* P6<sub>3</sub>/mmc. *a* = 3.9090(2) *c* = 15.6820(9) *Z* = 2

**X-Ray Diffraction Pattern:** Synthetic Ni<sub>2</sub>SbTe<sub>2</sub>.

1.9556 (100), 2.8421 (81), 1.6114 (23), 1.2437 (20), 2.0704 (16), 1.1291 (14), 3.3848 (13)

**Chemistry:**

|       | (1)   |
|-------|-------|
| Ni    | 22.92 |
| Fe    | 1.29  |
| Pd    | 1.29  |
| Sb    | 23.65 |
| Bi    | 0.33  |
| Te    | 49.95 |
| Total | 99.43 |

(1) Kunratice Cu-Ni sulfide deposit, near Šluknov, northern Czech Republic; average electron microprobe analysis; corresponds to (Ni<sub>1.93</sub>Fe<sub>0.11</sub>Pd<sub>0.06</sub>) <sub>$\Sigma=2.10$</sub> (Sb<sub>0.96</sub>Bi<sub>0.01</sub>) <sub>$\Sigma=0.97$</sub> Te<sub>1.93</sub>.

**Occurrence:** In a calc-alkaline basalt dike likely the product of low-temperature hydrothermal alteration of primary minerals near pentlandite.

**Association:** Pentlandite, pyrrhotite, chalcopyrite, violarite, Ni-bearing pyrite, melonite, sperrylite, alataite.

**Distribution:** From the Kunratice Cu-Ni sulfide deposit, near Šluknov, northern Czech Republic.

**Name:** Honors mineralogist Dr. Ivan Vavřín (b. 1937) of the Czech Geological Survey, for his studies of tellurium minerals and contributions to research on Cu-Ni sulfide deposits.

**Type Material:** National Museum, Prague, Czech Republic (P1p10/2005).

**References:** (1) Laufek, F., M. Drábek, R. Skála, J. Haloda, Z. Táborský, and I. Císařová (2007) Vavřínite, Ni<sub>2</sub>SbTe<sub>2</sub>, a new mineral species from the Kunratice Cu-Ni sulfide deposit, Czech Republic. Can. Mineral., 45(5), 1213-1219.