

Crystal Data: Monoclinic. *Point Group:* *m*. As aggregates resembling cotton tufts to 5 mm composed of acicular crystals to 3 mm and to 5 μm thick. Individual fibers are distorted and partly resemble bent wires. Also, as irregular grains to 50 μm in multicomponent aggregates.

Physical Properties: *Cleavage:* None. *Tenacity:* Elastic to flexible. *Fracture:* None. Hardness = n.d. D(meas.) = n.d. D(calc.) = 2.99

Optical Properties: Translucent. *Color:* White to yellowish gray; light gray in reflected light with abundant white to gray internal reflections. *Streak:* White. *Luster:* Vitreous to adamantine.

Optical Class: $n > 1.8$ *Pleochroism:* Very weak, colorless to pale greenish yellow.

Anisotropism: Distinct, gray tints. Bireflectance and pleochroism not observed.

R_1 - R_2 : (470) 15.4-18.8, (546) 16.1-20.4, (589) 16.4-20.8, (650) 16.9-20.9

Cell Data: *Space Group:* *Pc*. $a = 6.8831(12)$ $b = 22.501(3)$ $c = 6.8081(11)$ $\beta = 120.365(9)^\circ$ $Z = 12$

X-Ray Diffraction Pattern: Kateřina mine, near Radvanice, northern Bohemia, Czech Republic. 5.7395 (100), 2.8417 (33), 3.3650 (32), 2.8134 (20), 2.6257 (19), 5.2067 (16), 2.8236 (16)

Chemistry:	(1)	(2)
Ge	51.84	53.10
Pb	0.18	
Sn	0.21	
Bi	0.66	
Sb	0.12	
As	0.12	
S	45.65	46.90
Se	1.74	
total	100.52	100.00

(1) Kateřina coal mine dump, near Radvanice, northern Bohemia, Czech Republic; average electron microprobe analysis and Raman spectroscopy; corresponds to $(\text{Ge}_{0.99}\text{Bi}_{0.01})_{\Sigma=1.00}(\text{S}_{1.97}\text{Se}_{0.03})_{\Sigma=2.00}$.

(2) GeS₂.

Occurrence: In a spontaneously burning coal mine dump. Formed under reducing conditions by direct crystallization from hot gasses (250-350 $^\circ\text{C}$) containing Cl and F at a depth of 30-60 cm.

Association: Stangersite, herzenbergite, greenockite, Bi-Sb solid solutions (site one); minerals of Bi-Sb, Bi₂S₃-Sb₂S₃ and Bi₂S₃-Bi₂Se₃ solid solutions, Bi₃S₂, Bi-sulfo/seleno/tellurides, tellurium, unnamed PbGeS₃, Cd₄GeS₆, GeAsS, Sn₅Sb₃S₇, stangersite, greenockite, cadmoindite, herzenbergite, teallite, Sn- and/or Se-bearing galena (site two).

Distribution: From the Kateřina coal mine, eastern part of Radvanice village, ~12 km east of Trutnov, northern Bohemia, Czech Republic.

Name: For the village near where the studied material was collected.

Type Material: Department of Mineralogy and Petrology, National Museum, Prague, Czech Republic (PIP 9/2021).

References: (1) Sejkora, J., V. Žáček, R. Škoda, F. Laufek, and Z. Dolníček (2022) Radvaniceite, GeS₂, a new germanium sulphide, from the Kateřina mine, Radvanice near Trutnov, Czech Republic. *Minerals*, 12, 222, 1-12.