

**Crystal Data:** Triclinic. *Point Group:*  $\bar{1}$  or 1. Crystals, needlelike, elongated along [011], to 0.5 mm, showing {0kl} forms, terminated by {100} and {30 $\bar{2}$ }, may be in radial groups; generally in aggregates, forming nodules.

**Physical Properties:** *Cleavage:* On {010}, imperfect. *Fracture:* Uneven, earthy. *Tenacity:* Flexible in crystals. Hardness = Soft. D(meas.) = 2.334 D(calc.) = 2.336

**Optical Properties:** Semitransparent. *Color:* Yellowish green to grayish green. *Streak:* Pale yellowish.

*Optical Class:* Biaxial; birefringence 0.049–0.056. *Orientation:* Extinction angle = 22°.  $\alpha$  = n.d.  $\beta$  = 1.570–1.582 ( $\beta'$ )  $\gamma$  = 1.626–1.631 ( $\gamma'$ ) 2V(meas.) = n.d.

**Cell Data:** *Space Group:*  $P\bar{1}$  or  $P1$ .  $a$  = 10.722(5)  $b$  = 14.079(5)  $c$  = 10.284(5)  $\alpha$  = 93.50(4)°  $\beta$  = 115.96(4)°  $\gamma$  = 90.27(4)°  $Z$  = 4

**X-ray Powder Pattern:** Kaňk, Czech Republic. 9.197 (100), 8.884 (60), 9.625 (43), 3.077 (36), 3.920 (35), 2.458 (23), 5.338 (20)

Chemistry:	(1)	(2)
SO <sub>3</sub>	16.50	16.35
As <sub>2</sub> O <sub>5</sub>	22.10	23.46
Fe <sub>2</sub> O <sub>3</sub>	32.42	32.60
H <sub>2</sub> O	28.12	27.59
Total	[99.14]	100.00

(1) Kaňk, Czech Republic; original total given as 99.32%, presence of AsO<sub>4</sub>, SO<sub>4</sub>, and (OH)<sup>1-</sup> confirmed by IR; assuming H<sub>2</sub>O<sup>-</sup> 0.69%, corresponds to Fe<sub>2.00</sub>(AsO<sub>4</sub>)<sub>0.95</sub>(SO<sub>4</sub>)<sub>1.02</sub>(OH)<sub>1.00</sub> • 7H<sub>2</sub>O.  
 (2) Fe<sub>2</sub>(AsO<sub>4</sub>)(SO<sub>4</sub>)(OH) • 7H<sub>2</sub>O.

**Occurrence:** A post-mining surficial weathering product of Fe–As sulfides.

**Association:** Arsenopyrite, pyrite, quartz.

**Distribution:** Found in dumps of the Kuntery and other mines, Kaňk, 2.5 km north of Kutná Hora, Czech Republic.

**Name:** To honor Antonín Bukovský (1865–1950), Professor at the secondary school of Kutná Hora, Czech Republic, who first analyzed the mineral.

**Type Material:** Charles University, 14240; National Museum, Prague, Czech Republic, 53411.

**References:** (1) Novák, F, P. Povondra, and J. Vtělenský (1967) Bukovskýite, Fe<sub>2</sub><sup>3+</sup>(AsO<sub>4</sub>)(SO<sub>4</sub>)(OH) • 7H<sub>2</sub>O, from Kaňk, near Kutná Hora – a new mineral. Acta Univ. Carolinae, Geol., 4, 297–325. (2) (1969) Amer. Mineral., 54, 576–577 (abs. ref. 1). (3) (1969) Amer. Mineral., 54, 991 (abs. ref. 1). (4) Johan, Z. (1986) Crystal symmetry and unit-cell of bukovskyite, Fe<sub>2</sub><sup>3+</sup>(AsO<sub>4</sub>)(SO<sub>4</sub>)(OH) • 7H<sub>2</sub>O. Neues Jahrb. Mineral., Monatsh., 445–451.