

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As acicular to tabular crystals, to 1 mm, and as rosettes and spherical divergent sprays to 5 mm.

Physical Properties: *Cleavage:* Perfect on {011}; good on {010}. *Fracture:* Irregular. *Tenacity:* Very brittle. $D(\text{meas.}) = 3.05(1)$ $D(\text{calc.}) = 3.05$ *Hardness* = 3.5-4

Optical Properties: Transparent to translucent. *Color:* Colorless with a green tint, pale green, light blue to blue-green. *Streak:* White. *Luster:* Vitreous.
Optical Class: Biaxial (+). $\alpha' = 1.591(2)$ $\beta' = 1.620(2)$ $\gamma' = 1.701(2)$ $2V(\text{calc.}) = \sim 64^\circ$
Pleochroism: Moderate; $X =$ light gray to colorless, $Y =$ very light greenish gray, $Z =$ light green. Elongation (-) on (011) and extinction = 27° , elongation (+) on (010) and extinction = 17° .

Cell Data: *Space Group:* $P\bar{1}$. $a = 6.408(3)$ $b = 14.491(5)$ $c = 16.505(8)$
 $\alpha = 102.87(3)$ $\beta = 101.32(5)$ $\gamma = 97.13(3)^\circ$ $Z = 1$

X-ray Powder Pattern: Jáchymov, Czech Republic.
 11.98 (100), 5.992 (6), 3.448 (5), 2.967 (5), 2.4069 (4), 2.4002 (4), 15.70 (3)

| Chemistry: | (1) | (2) | (3) |
|--------------------------------|--------|--------|--------|
| CaO | | 0.07 | |
| FeO | 0.12 | 0.04 | |
| CuO | 39.93 | 39.99 | 39.26 |
| ZnO | | 0.12 | |
| Al ₂ O ₃ | 0.13 | 0.38 | |
| As ₂ O ₅ | 44.71 | 46.03 | 43.36 |
| P ₂ O ₅ | | 0.10 | |
| H ₂ O | 17.31 | [18.2] | 17.10 |
| Total | 102.20 | 104.93 | 100.00 |

(1) Jáchymov, Czech Republic; average of 6 electron microprobe analyses supplemented by IR spectroscopy, H₂O by TGA; corresponds to $(\text{Cu}_{12.96}\text{Al}_{0.07}\text{Fe}_{0.04})_{\Sigma=13.07}(\text{AsO}_4)_{6.11}(\text{AsO}_3\text{OH})_{3.93} \cdot 22.83\text{H}_2\text{O}$. (2) Krásno district, Czech Republic; average of 3 electron microprobe analyses supplemented by IR spectroscopy, H₂O calculated from structure analysis; corresponds to $(\text{Cu}_{12.51}\text{Al}_{0.19}\text{Zn}_{0.04}\text{Ca}_{0.03}\text{Fe}_{0.01})_{\Sigma=12.78}(\text{AsO}_4)_{5.70}(\text{PO}_4)_{0.04}(\text{AsO}_3\text{OH})_{4.27} \cdot 23\text{H}_2\text{O}$. (3) $\text{Cu}_{13}(\text{AsO}_4)_6(\text{AsO}_3\text{OH})_4 \cdot 23\text{H}_2\text{O}$.

Occurrence: A secondary mineral formed during the weathering of primary tennantite and chalcopyrite in a complex polymetallic hydrothermal vein deposit.

Association: Lavendulan, geminite, lindackerite, ondrúšite (Jáchymov); amorphous Cu, Fe arsenates and clay minerals (Krásno district).

Distribution: From the Huber open pit, Krásno district, near Horní Slavkov, Slavkovský Les Mountains and from the Geschieber vein, Daniel level, Svornost mine, Jáchymov district, Krušné hory Mountains, Czech Republic.

Name: For Horní Slavkov, Czech Republic, from where the first specimens were collected.

Type Material: National Museum, Prague, Czech Republic (PIN 83.038).

References: (1) Sejkora, J., J. Plášil, P. Ondruš, F. Veselovský, I. Cisařová, and J. Hloušek (2010) Slavkovite, $\text{Cu}_{13}(\text{AsO}_4)_6(\text{AsO}_3\text{OH})_4 \cdot 23\text{H}_2\text{O}$, a new mineral species from Horní Slavkov and Jáchymov, Czech Republic: description and crystal-structure determination. *Can. Mineral.*, 48, 1157-1170. (2) (2011) *Amer. Mineral.*, 96, 1659-1660(abs. ref. 1).