

Zincolivenit z rudního revíru Krupka, Krušné hory (Česká republika)

Zincolivenite from the ore district Krupka, the Krušné hory Mts., Czech Republic

JIŘÍ SEJKORA¹⁾, JIŘÍ ŠKOVÍRA²⁾ A RADEK ŠKODA³⁾

¹⁾ Národní muzeum, Václavské náměstí 68, 115 79 Praha 1

²⁾ Martinka, 417 41 Krupka III

³⁾ Ústav geologických věd, Přírodovědecká fakulta, Masarykova univerzita, Kotlářská 2, 611 37 Brno

SEJKORA J., ŠKOVÍRA J., ŠKODA R. (2008): Zincolivenit z rudního revíru Krupka, Krušné hory (Česká republika). - *Bull. mineral.-petrolog. Odd. Nár. Muz. (Praha)* 16/1, 24-29. ISSN: 1211-0329.

Abstract

Rare supergene Zn-Cu arsenate, zincolivenite, was found in remnants of mine dumps of the abandoned Stříbrná 2 adit at NW margin of the Krupka town, Krušné hory Mountains, northern Bohemia, Czech Republic. It forms coatings and crusts up to 1 cm² which are rarely composed by hemispherical aggregates up to 0.1 - 2 mm in size. Tiny tabular crystals (up to 8 - 10 μm) were observed at their surface. Zincolivenite is translucent, light green with bluish or yellowish tint. White hydrozincite, colourless gypsum and red brown „limonite“ were found in the association. Zincolivenite is orthorhombic, space group *Pnmm*, the unit-cell parameters refined from X-ray powder data are: *a* = 8.456(2) *b* = 8.465(2), *c* = 5.986(1) Å, *V* = 428.9(1) Å³. Chemical analyses yielded the average composition CaO 0.11, FeO 0.38, PbO 1.00, CuO 17.45, ZnO 36.42, Al₂O₃ 1.42, As₂O₅ 39.70, P₂O₅ 0.14, SO₃ 0.34, H₂O (3.44), total (100.10) wt. %, corresponding to the formula (Zn_{1.27}Cu_{0.62}Al_{0.08}Pb_{0.01}Ca_{0.01})_{Σ1.99} [(AsO₄)_{0.98}(PO₄)_{0.01}(SO₄)_{0.01}]_{Σ1.00}(OH)_{1.09} on the basis of 1 atom in anion site. Chemical composition of the studied zincolivenite is compared to published data. The origin of zincolivenite at Krupka is interpreted as the product of weathering of primary sulfides in conditions of mine dumps deposited at the earth surface.

Key words: zincolivenite, X-ray powder data, unit-cell parameters, chemical composition, Krupka ore deposit, Czech Republic