

Sulfidická mineralizace z vápencového lomu Prachovice, Česká republika

Sulfide mineralization from the limestone quarry Prachovice, Czech Republic

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Abstract

The results of new mineralogical study of sulfide mineralization found at III. level of active limestone quarry Prachovice (eastern Bohemia, Czech Republic) in 1980 year are given in this paper. The published occurrence of geocronite was confirmed but this mineral phase is only rare in the studied association. It is monoclinic, space group $P2_1/m$ with following refined unit-cell parameters: a 8.978(1), b 31.975(4), c 8.507(1) Å, β 118.02(1)°, V 2156.0(9) Å³. Its chemical composition correspond to the empirical formula $Pb_{13.84}(Sb_{4.05}As_{2.08})_{\Sigma 6.13}(S_{22.89}Se_{0.08}Cl_{0.05})_{\Sigma 23.02}$. Previously undescribed sulfosalt, boulangerite, is very abundant there, it forms fibrous aggregates up to 2 cm in size. Boulangerite is monoclinic, space group $P2_1/a$ with refined unit-cell parameters: a 21.612(2), b 23.540(3), c 8.0844(9) Å, β 100.70(8)° and V 4041.3(8) Å³. Its chemical composition is possible to express by empirical formula $Pb_{4.94}(Sb_{3.93}As_{0.08})_{\Sigma 4.01}(S_{11.00}Se_{0.03}Cl_{0.03})_{\Sigma 11.06}$. The quantitative chemical data are also given for abundant galena and sphalerite and rare arsenopyrite and pyrite. The description and mineralogical data of determined supergene phases - anglesite, cerussite, smithsonite and bindhemite are also given in the paper.

Keywords: geocronite, boulangerite, X-ray powder diffraction data, chemical composition, Prachovice, Czech Republic

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