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PŮVODNÍ PRÁCE/ORIGINAL PAPER

Sulfidická mineralizace s Au-bohatým stříbrem z Utína v havlíčkobrodském rudním revíru (Česká republika)

Sulphide mineralization with Au-rich silver from Utín in the Havlíčkův Brod ore district (Czech Republic)

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Abstract

Sulphide mineralization was found in relics of mine dumps from medieval mining near Utín, at SE part of the Havlíčkův Brod ore district (Bohemian-Moravian Highlands, Czech Republic). It is represented by pyrite, Fe-rich sphalerite, chalcopyrite, arsenopyrite, galena (with chemical compositions corresponding to other occurrences of this ore district) and more rare jamesonite and boulangerite. The main Ag ore was probably Ag-rich member of tetrahedrite group - kenoargentotetrahedrite-(Fe) with empirical formula $(\text{Ag}_{5.45}\text{Cu}_{4.48}\Sigma_{9.93})(\text{Fe}_{1.75}\text{Zn}_{0.32}\text{Mn}_{0.01}\Sigma_{2.08})\text{Sb}_{4.00}\text{S}_{12.05}$. Another interesting mineral found in this association is Au-rich silver with Au contents in the range 53.35 - 56.40 wt. % and average empirical formula $\text{Ag}_{0.60}\text{Au}_{0.39}$. Schultenite, minerals of the pharmacosiderite group and inhomogeneous Fe-arsenates were detected from the rarely represented supergene mineralization.

Key words: sulphidic mineralization, Au-rich silver, chemical composition, base-metal district Havlíčkův Brod, Utín, Czech Republic

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