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Mimetite and Sb-rich segnitite from the Zlatá Idka Ag-Au-Sb deposit, Spišsko-gemerské rudohorie Mts., Slovakia

Martin Števko[1,2)]* and Jiří Sejkora[2)]

*[1)]Earth Science Institute, v.v.i., Slovak Academy of Sciences, Dúbravská cesta 9, 840 05 Bratislava, Slovak Republic; *e-mail: martin.stevko@savba.sk*
[2)]Department of Mineralogy and Petrology, National Museum, Cirkusová 1740, 193 00 Praha 9 - Horní Počernice, Czech Republic

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Abstract

A new occurrence of mimetite and Sb-rich segnitite was discovered at the dump of the Najvyšší Štefan adit at the Zlatá Idka Ag-Au-Sb deposit near Zlatá Idka, Spišsko-gemerské rudohorie Mts., Košice-okolie Co., Košice Region, Slovakia. Mimetite occurs as white to colourless prismatic crystals up 2.5 mm in size, developed on fractures or in cavities of quartz gangue. Its average (n = 15) empirical formula (based on sum of As+P+S = 3 *apfu*) is $Pb_{4.99}[(AsO_4)_{2.75}(PO_4)_{0.22}(SO_4)_{0.03}]_{\Sigma 3.00}Cl_{1.12}$. Sb-rich segnitite forms greenish-yellow botryoidal microcrystalline crusts, which are partly covering or replacing crystals of mimetite. Significant contents of Sb (ranging from 0.15 to 0.34 *apfu*) substituting for Fe^{3+} on *B*-site were observed in studied sample. The average (n = 12) empirical formula of segnitite from the Zlatá Idka-Ag-Au-Sb deposit (based on sum of As+P+Si+S = 2 *apfu*) is $Pb_{1.09}(Fe_{2.73}Sb_{0.22}Al_{0.02}Zn_{0.01})_{\Sigma 2.98}[(AsO_4)_{1.08}(AsO_3OH)_{0.56}(PO_4)_{0.27}(SO_4)_{0.07}(SiO_2)_{0.02}]_{\Sigma 2.00}(OH)_{6.17}$.

Key words: *mimetite, segnitite, chemical composition, Zlatá Idka, Gemeric Unit, Spišsko-gemerské rudohorie Mts., Slovak Republic*

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