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PŮVODNÍ PRÁCE/ORIGINAL PAPER

Stibioclaudetite from the Zlatá Idka Ag-Au-Sb deposit, Spišsko-gemerské rudohorie Mts., Slovakia

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Abstract

A rare mineral, stibioclaudetite, ideally AsSbO_3 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. It occurs as colourless prismatic crystals up 5 mm with perfect cleavage, developed on fractures of quartz gangue with abundant stibnite, arsenopyrite and minor pyrite. The unit-cell parameters of stibioclaudetite from the Zlatá Idka (for the monoclinic space group $P2_1/n$) refined from the PXRD data are: a 4.5715(17) Å, b 13.112(2) Å, c 5.4182(15) Å, β 94.97(3) and V 323.55(14) Å³. Its chemical composition corresponds to the average empirical formula $\text{As}_{1.09}\text{Sb}_{0.91}\text{O}_{3.00}$. Raman spectrum of stibioclaudetite is also given. Stibioclaudetite was formed by the *in-situ* weathering of primary ore minerals at the base of the supergene zone under the relatively reducing conditions.

Key words: stibioclaudetite, chemical composition, Raman spectroscopy, Zlatá Idka, Gemeric Unit, Spišsko-gemerské rudohorie Mts., Slovak Republic

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