

PŮVODNÍ PRÁCE/ORIGINAL PAPER

Výskyt tetradymitu a telurobismutitu pri Pukanci, Štiavnické vrchy (Slovenská republika)

The occurrence of tetradymite and tellurobismuthite near Pukanec, Štiavnické vrchy Mts. (Slovak Republic)

MARTIN ŠTEVKO¹⁾, JIŘÍ SEJKORA²⁾, IVO MACEK^{2,3)}, PETER TUČEK⁴⁾ A PETER ŽITŇAN⁵⁾

¹⁾Univerzita Komenského v Bratislave, Prírodovedecká fakulta, Katedra mineralógie a petrológie, Mlynská dolina, 842 15 Bratislava 4, Slovenská republika, e-mail: stevko@fns.uniba.sk

²⁾Mineralogicko-petrologické oddělení, Národní muzeum, Cirkusová 1740, 193 00 Praha 9 - Horní Počernice, Česká republika

³⁾Ústav geologických věd, Masarykova univerzita, Kotlářská 2, 611 37 Brno, Česká republika

⁴⁾Velký Klíž 80, 958 45 Velký Klíž, Slovenská republika

⁵⁾Slovenská banská spol. s.r.o., Hodruša-Hámre 388, 966 61 Hodruša-Hámre, Slovenská republika

ŠTEVKO M., SEJKORA J., MACEK I., TUČEK P., ŽITŇAN P. (2014) Výskyt tetradymitu a telurobismutitu pri Pukanci, Štiavnické vrchy (Slovenská republika). *Bull. mineral.-petrolog. Odd. Nár. Muz. (Praha)* 22, 1, 115-119. ISSN: 1211-0329.

Abstract

Bismuth tellurides (tetradymite and tellurobismuthite) were identified in the heavy mineral fraction of alluvial placers from Pukanský potok brook near Pukanec, Štiavnické vrchy Mountains, Slovak Republic. They forms only very slightly rounded aggregates up to 5 mm in size with typical perfect cleavage. Aggregates of bismuth tellurides from Pukanec are mostly represented by tetradymite, which has a uniform chemical composition and only minor contents of Se (up to 0.10 *apfu*) and Sb (0.01 *apfu*) were detected. Its empirical formula is $(\text{Bi}_{2.00}\text{Sb}_{0.01})_{\Sigma 2.01}\text{Te}_{1.99}(\text{S}_{0.92}\text{Se}_{0.08})_{\Sigma 1.00}$ on basis of 5 *apfu*. Tellurobismuthite was observed as microscopic oval or irregular elongated inclusions in tetradymite. Only rarely aggregates of tellurobismuthite up to 3 mm in size with thin tetradymite rim were observed. The chemical composition of tellurobismuthite is nearly close to the end member, it has only minor contents of Se (0.02 *apfu*) and Sb (0.02 *apfu*) and its empirical formula is $(\text{Bi}_{2.01}\text{Sb}_{0.02})_{\Sigma 2.03}\text{Te}_{2.96}\text{Se}_{0.01})_{\Sigma 2.97}$ on basis of 5 *apfu*. This find of bismuth tellurides indicates the existence of previously unknown primary Bi-Te mineralization near Pukanec, but its connection to the epithermal Au-Ag mineralization is not clear.

Key words: Bi-tellurides, tetradymite, tellurobismuthite, chemical composition, Pukanec, Slovak Republic

Obdrženo: 25. 5. 2014; přijato: 30. 6. 2014