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Contribution to the chemical composition of the tetrahedrite group minerals from the Jeleniarka (Hirschkohlung) deposit near Dobšiná, Spišsko-gemerské rudohorie Mts., Slovakia: First occurrence of bismuth-rich members in Gemeric unit

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Abstract

A preliminary EPMA-WDS study of two samples of minerals of the tetrahedrite group from the Jeleniarka (Hirschkohlung) deposit near Dobšiná revealed their surprisingly complex chemical composition. Tetrahedrite-(Fe), tetrahedrite-(Zn) as well as tetrahedrite-(Hg) were identified at the deposit. Especially interesting are high concentrations of Bi (up to 1.23 *apfu*, 14.75 wt. %) which were detected in tetrahedrite-(Zn) directly associated with the bismuth sulfosalts. This phase could probably represent a younger generation of minerals of the tetrahedrite group. The Bi-enriched members of the tetrahedrite group are generally very rare within all types of ore mineralization in the Western Carpathians.

Key words: *tetrahedrite-(Fe), tetrahedrite-(Zn), tetrahedrite-(Hg), annivite series, chemical composition, Jeleniarka deposit, Dobšiná, Gemeric Unit, Spišsko-gemerské rudohorie Mts., Slovakia*

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