

ARSENIC CONTAINING MINERALS IN THE HANKÓ VALLEY (COVASNA, ROMANIA). HISTORICAL BACKGROUND. DAWSONITE: A NEW MINERAL FOR ROMANIA

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The presentation consists of three parts: the first part concerns the history of the research of the mineralization, the presence of As in the mineral waters from Covasna. The second part presents the geological setting, the minerals in the assemblage as well as some genetic features, while the third part emphasizes the possibility of identification of such mineralization elsewhere.

The first mention of the mineralization in the Hankó Valley belongs to HAUER (1860). Only a few works have been done previously, and in various stages (BÁNYAI, 1932; LÁSZLÓ *et al.*, 1996). The presence of As in mineral water was identified long after the description of the As rich mineralization, in spite of the great number of water analyses carried by different researchers (FOLBERTH, 1860; PITULESCU *et al.*, 1953).

A brecciated carbonatic sandstone hosts the mineralization. Besides pyrite, marcasite and siderite, other minerals were deposited from the mineral waters: aragonite, sulphur, orpiment, realgar, dawsonite (first mention in Romania) and, according to Bányai (SZABÓ *et al.*, 1941), dimorphite. Recent studies prove that As is connected to the sandstone, from which it was dissolved by the mineral waters (LÁSZLÓ *et al.*, 1996).

The presence of As rich waters in several other places (Băile Malnaş, Turia etc.) in similar geological settings (SOÓS *et al.*, 1959; SZABÓ *et al.*, 1941), leads to the premise that the occurrence in Hankó Valley is not singular. Another proof is a borehole sample in the collection of the National Székely Museum in Sf. Gheorghe, consisting of a sandstone with calcite veins and orpiment from Bodoc (sample M.9.).

The identification of dawsonite and the premises of finding similar assemblages in other places are at least two reasons for continuing and deepening of this research.

The below mentioned reference list is extremely selective.

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