

RECENZIE - BOOK REVIEW

Ioan Mârza, *Genesis of magmatic derived ore deposits. 4 – Hydrothermal metallogeny (Geneza zăcămințelor de origine magmatică. 4 – Metalogenia hidrotermală)*, Pp. 486, Presa Universitară Clujeană, University Babeș-Bolyai, Cluj-Napoca, Romania, 1999 (in Romanian).

The ore deposits reference list in Romania was significantly enriched due to a new volume dedicated to the hydrothermal ore deposits. “*Hydrothermal metallogeny*” (*Metalogenia hidrotermală*), the fourth volume of Prof. Mârza’s monography devoted to magmatic derived ore deposits was recently published by “Presa Universitară Clujeană”.

This new volume represents in fact the result of nearly a whole life of scientific activity, which comprises more than 180 original publications. Among Prof. Mârza’s main scientific contributions we may consign those volumes that altogether represent the first Romanian monography devoted to magmatic derived ore deposits that counts more than 1500 pages. The first volume (250 p.) was published in 1982 and it deals with general problems of magmatic metallogeny. The second volume (331 p.), published in 1985 tackles about orthomagmatic and pegmatitic metallogeny. Skarn and greisen petrometallogeny were the aims of the third volume (485 p.), published in 1992. The fourth and final volume, which is announced with this occasion, broachs the subject of hydrothermal metallogeny.

A series of very important metals (Au, Ag, Pb, Zn, Cu etc.) are preferentially concentrated during

hydrothermal activity in several genetic types of hydrothermal ore deposits. Among the Romanian metallogenetic resources, the best developed and the most important types of ore deposits from an economic point of view are the hydrothermal ones. Classic occurrences of hydrothermal ore deposits in the Eastern Carpathians as well as in the Apuseni Mountains are well known to the scientific community. These are only a few reasons why “*Metalogenia hidrotermală*” roses the interest of Romanian and foreign economic geologists.

The author managed to cover various aspects of hydrothermal metallogeny from classic to modern points of view. Several classic topics were analyzed, such as the classification of hydrothermal ore deposits, the chemistry of the hydrothermal fluids, metal-complexing agents in hydrothermal fluids, the zoning, alteration and controlling factors of hydrothermal fluid generation. After these well known general aspects concerning the hydrothermal systems several new concepts were highlighted: high- and low-sulfidation hydrothermal styles, hydrothermal boiling and its impact upon metal deposition during hydrothermal activity, porphyry-type ore deposits, breccia pipe structures, regenerated ore deposits, petrometallogenetic modelling etc.

In our opinion, Mârza’s volume “*Metalogenia hidrotermală*” has the great merit of presenting in a very specific – personal way the complex peculiarities of hydrothermal systems. Each concept and statement is accurate and discussed into details. Furthermore, each one is put in relation

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with others, in order to stress the relationships between them and their role in our attempt to understand the hydrothermal systems. The author's great experience concerning the hydrothermal ore deposits from Romania altogether with the up to date information which was collected during an impressive bibliographic

research, gave rise to a modern and valuable scientific contribution.

This volume will inform and entertain the students, faculty members, and all the persons interested in the study of ore deposits, especially those related to hydrothermal activity.

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