

Book review

"Skarns — their genesis and metallogeny" (1991. Theophrastus Publications S. A., Athens. 648 p.)

Skarns are accompanied by or host industrial mineralizations of certain metals and hence those have been the subject of study of many scientists from different countries. The results from the research work have been published periodically in scientific journals as well in a number of specialized collections and monographs. One of the latest books is the collection *"Skarns — their genesis and metallogeny"* (1991) published by Theophrastus Publications. The authors are specialists from the USA, former USSR, Japan, Spain, China and Belgium and all that creates its international character. Thematically the articles are classified in five sections: Metallogeny of skarns (12 papers), Magnesian skarns (3 papers), Regional consideration of skarn types (5 papers), Physico-Chemical studies of skarn formation (6 papers) and Exploration (1 paper). It is difficult to differentiate the different sections and that is why the grouping given above has to be treated conventionally. The specific subjects, discussed in the separate sections are: mineralogy, geochemistry, the conditions of skarn formations and ore mineralizations accompanied by or hosted in them, the genesis of skarns and place of experimental and thermodynamic data in its explanation, structural peculiarities of skarns and criteria for the prospecting of skarn deposits. Some of the articles mainly by Chinese explorers contain new and concrete information about skarn deposits and ore mineralizations. They present to the specialists from other countries information about the characteristic peculiarities of these almost unknown but wide spread in China geological formations. Some of the articles have regional character, as well as some elements of general conclusions. The following papers may be specially mentioned: "Tin Behaviour and Its Implications for Skarn Genesis" (M. Watanabe and K. Hoshino), "Relation of Skarn Formation and Lead-Zinc Mineralization in Some Ore Deposits in the USSR" (M. Dobrovolskaya et al.), "Gold Conduct in the Contact-Metasomatic Processes of Intrusions" (A. Korobeinikov), "Magnesian Skarns" (N. Pertsev), "Scheelite-Bearing Skarns in the Sierra Nevada Region, California: Contrast in Zoning and Mineral Compositions and Tests of Infiltration Metasomatism Theory" (R. Newberry), "Tungsten-Bearing Scapolite-Vesuvianite Skarns from the Upper Salcha River Area, East-Central Alaska" (G. Lowell), "Petrochemistry and Fluid-Inclusions Study of Skarns from the Northern Battle Mountain Mining District, Nevada" (T. Theodore and J. Hammarstrom) and "Influence of Depth and Igneous Chemistry on Ore Development in Skarns: The Hercynian Belt of the Iberian Peninsula" (C. Casquet and F. Tornos). Most interesting are also the papers of V. Zharikov "Skarn Types, Formation and Ore Mineralization Conditions", of G. Zarskiy "Experimental Modelling of Bimetasomatic Calcareous Skarn Zoning", and of A. Aksjuk "Physico-Chemical Conditions of the Formation of Skarns of the Magmatic Stage".

As a conclusion it can be stated that most of the articles in the collection give new information or new interpretation of the existing geological, experimental and thermodynamic data of the skarns and their ore mineralizations. All these encourages me to recommend it to the specialists treating these problems. But I cannot ignore the fact, however, that most of the papers lack strict detachment of skarn forming elements from the hydrothermal processes of ore formation that appear later. That is why in this collection one can read of skarn-copper, skarn-gold, etc. deposits which is not correct from the point of view of existing interrelations between skarns and ore mineralizations. In most cases skarns are just the existing environment and it is more correct to speak of skarn hosted gold, copper and other types of mineralization. The collection has some other weak points but they are not enough to spoil the general impression this interesting and timely work creates. That is why I largely recommend it to specialists. Its price is quite reasonable even for the specialists of the former socialist countries.

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