



Considerations on the Mo mineralization from the Mraconia perimeter

M.A. Anason, ST. Marincea, D.G. Dumitras, and A.M. Iancu

Geological Institute of Romania, Caransebes 1st., Bucharest 012721, Romania, University of Bucharest

The molybdenum contents recorded in the prelaramic magmatite from the area, using emission spectroscopy, do not exceed in general the values of 3 ppm (Vlad et al., 1984, Vieru et al., 1990) placing them around the average of 2.5 ppm gave by Sandell si Goldich 1943 (fide Rankama, Sahama, 1968) for “salicylic magmatite”. Two samples of porphyry granodiorites collected from the Mraconia Valley 7th gallery make an exception from the values just mentioned. The Mo contents of this two are 3.5 ppm and 42 ppm respectively (Vlad et al., 1984). Clearly these contents are insignificant in the crystalline limestones case because of the calcophile extreme of the molybdenite mineral. The previous data argues, in a satisfactory way, the exclusive presence of the molybdenite mineral in the „quartz und molibdenum” formation.

Apart from the field work, geological research involves and laboratory studies of the collected material and its analysis by applying various methods of analysis: physical, chemical or using a combination of these. The rock samples with molybdenum mineralization were collected from different parts of the Mraconia Valley. They have been observed both, macroscopic, directly in the field, and microscopic using a Carl Zeiss Jenapol petro-graphic microscope. For the determination of Mo contents was used the spectrographic emission method on 16 samples. The molybdenite mineral (MoS₂) appears as being characteristic to the hypo-mesothermal phases in the hydrothermal formation called “quartz und molybdenum”, located, with maximum frequency at the contact of the granite bodies and quartz-chlorite schist, belongs to the Corbu crystalline, but sometimes appears as impregnations in the granodiorites and metasomatites mass.

The macroscopic observations have revealed that the molybdenite mineral does not form relationship with other sulphides, except pyrite, which prevents the crystallizations compared with other minerals. The presence in some associations is due to the late chalcopyrite overlapping. The mineral occurs both on the fissures affecting the granodiorite mass, near the contact, where it associates with quartz, pyrite and chalcopyrite, and as impregnations in the skarn mass. Individual crystals, up to 1 mm across, have lamellar hexagonal habit and generally form sheave-like, rosette-like or scaly aggregates.

The atomic emission spectrometry analysis of some quartz taken from the perimeter, which have different genesis, have led to record of some contents (table 1) of the molybdenum just in hydrothermal quartz from the Mraconia granodiorite and from the Corbu blastomylonite (8-36 p.p.m.).

References

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