STRATA-BOUND PB-ZN-CU DEPOSITS IN KAILIAS NEAR DAFNOUDI (CENTRAL-MENIKION, NORTHEAST GREECE)

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In the area between Dafnoudi and Anastasia (Central Menikion) locally remainders of an up to 1.5 m thick schist-marble sequence occur concordantly intercalated between the crystalline basement of the Rila-Rhodope-Massif and overlying sedimentary rocks. This unit is composed of a lower silicate zone and an upper carbonate zone and is weakly metamorphosed. Its age is probably upper Mesozoic. In Kailias, exposures of this unit cover an area of 650 × 250 m. As a general rule, this unit is poor in ore minerals.

The ore occurrence of Kailias is strata-bound. Two ore zones are distinguished; (1) a lower Cu zone, which is related to the silicate zone, and (2) an upper Pb-Zn zone, which occurs in dolomitic marbles (carbonate zone). The ore is more or less strongly oxidized and its content decreases toward the NE.

The Pb-Zn ore shows a simple mineral paragenesis which occurs mainly as small concretions, in fine fissures and as disseminations in the hostrock and shows typical diagenetic textures. This ore occurrence belongs to the «Mississippi Valley-type deposits» (B type ore). The Cu ores occur in veins, and exhibit also typical diagenetic textures.

Both ores were probably precipitated from the same solution in a shallow water basin. The zonation is due to the differing affinity of the base metals to S.

Several aspects support a syngenetic-sedimentary mode of formation for the ore. The most probable major source of the metals are the metamorphic country rocks, which were leached by meteoric waters.

AN APPLICATION SOFTWARE FOR GEOCHEMICAL DATA PROCESSING AND MAPPING IN 2D AND 3D

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