



Ore Mineralogy Features of Hayriye and Arapdede Mineralizations in (Inegol-Bursa) Area

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Western Anatolia (Turkey) experienced widespread Cenozoic magmatism after the collision between the Sakarya and Anatolide-Tauride continental blocks in the pre-middle Eocene. The widespread magmatic activity in NW Anatolia postdates this continental collisional event in the region. The following magmatic episode during the Oligocene and Early Miocene is known to have produced the widespread granitic plutons. Many skarn mineralization associated with plutons formed in the region (such as Hayriye and Arapdede Mineralizations). The Paleozoic aged Devlez Metabasite is the oldest unit of the study area. This unit includes amphibolite, glaucophane-lawsonite schist, muscovite schists. The unit has widely spread in area. This units are overlain unconformably by the Geyiktepe Marbles. Paleocene aged Domaniç granitoidic intrusives cut other rock series and located as a batholite. Magmatic units present porphyric and holocrystalline textures. Granitoidic intrusions are represented by tonalite, tonalite porphyry, granodiorite, granodiorite porphyry, granite, diorite, diorite porphyries. The Domaniç granitoid intruded in to the metamorphites during Paleocene and caused formations of skarn zones and related Cu-Pb-Zn mineralizations along the contacts. Mineralizations are known in the locations named as Arapdede and Hayriye. The mineralizations occur along the metamorphites - plutonics contact, in the pockets and fractures extending towards marble. The thickness of the mineralized bodies can reach up to 1 -2 m. Primary minerals are galenite, magnetite, pyrite, chalcopyrite and sphalerite at Hayriye mineralizations and sphalerite, galenite, chalcopyrite and pyrite minerals at the Arapdede mineralizations.

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