

Comparing Contiguous Plutons Related Gold Genesis: Sarıçayryayla(Bilecik) and Dağdemirciler(Bursa)

HÜSEYİN SENDİR¹, MUSTAFA KUMRAL²
SEZAI KIRIKOĞLU³, HUSEYİN KOCATURK⁴
HAKAN ÇOBAN⁵

¹Eskisehir Osmangazi University, hsendir@ogu.edu.tr

²Istanbul Technical University, kumral@itu.edu.tr

³Istanbul Technical University, sezai@itu.edu.tr

⁴ Istanbul Technical University, kocaturkhu@itu.edu.tr

⁵Batman University, hakan.coban@batman.edu.tr

Ore genesis processes is related to intrusions and it is relevant products for both of the field. Boğazova Pluton classified as generally granodiorite with the subtypes such as granodiorite porphyry, diorite porphyry, granite, diorite on the Sarıçayryayla region. Firstly study of this field formed with fluid inclusion technics, ore microscopy investigations, and geochemical results. While researchs resume there is a similarly characterized pluton observed. This Dağdemirciler Pluton exist on approximately 30-40 km northwest of the deposit. Dağdemirciler Pluton is classified as same as Boğazova Granodiorite. Over the lithology special structures chosen such as quartz fillons, calcite veins and altered zones. Gold, silver, platinum and palladium enrichments was most related with mostly like secondary intrusion genesis environment. Researched parameters like mafic minerals and enclave ratios on different deformation structures, cross sections of structures and relative existing sequence are all changes with different time periods like geochemical environment and each vein. Gold and silver is related with low-sulphidation quartz veins and lodes on the Dağdemirciler. Alteration zones are typically observed in the both of the study field. All the ore types are relevant with intrusions but Dağdemirciler enrichments are predominantly related with calcerous anatex material inerside of main granodiorite body. Some of the enrichments for the Sarıçayryayla is in the main body of porphyritic zones granitoids but some of them observed along deformation structures. It is avowable for the both field deformation structures and fluid pathways which related with plate tectonics progressed on Uludag forearc system and each steps of dynamic movements of subducting. Consequently we observed nearly 2 ppm gold 4 ppm silver for several samples at Dağdemirciler region and kalaverite mineral determined by the XRD results on the other hand disseminated gold observed in the thin section investigations for the Sarıçayryayla region.