



Microtextures of Quartz as indication of Au Anomaly

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The texture of rocks depends on the composition of the rock and the conditions, cooling and equilibrium or re-equilibration of the minerals within the crystallization system. The textures are different in all hydrothermal rocks although they have same components. The orientation, mineral size and ordering situation with the neighboring minerals can be indicate the condition of the temperature, pressure and hydrothermal behavior during the crystallization of the rocks. More than 500 samples were analysed from different Au bearing quartzite or silicified zone under the microscope. The samples are collected from Bergama Ovacık, Cöpler Gumushane, Develi Kayseri, Karakaya Kaymaz –Eskisehir gold mine regions. Quartz and silicification veins are a common feature in many of the Au deposits and a major host to Au mineralization. Gold bearing quartzite or silicified rocks may have massive, crustiform, clotted, moss, comb, zonal, mosaic, flame boyant, pseudobladed, pseudoacicular, spheroidal and micro vein textures. The results of the Electronmicroprob (EPMA) and micro XRF reveal that Au mineralizations are concentrated within the pure quartz with the moss, comb, zonal, mosaic, flame boyant textures zone rather than Fe, Ti, Ca, Mn, and Cr contents. There are no anomaly relationships between Au and Ag in the alteration zone of the silicified rocks in the study area.

Keywords: Au mineralization, quartz vein, micro textures, Au anomaly.