DASHKASAN SB-AU DEPOSIT: MINERALOGY, GEOCHEMISTRY AND GENESIS

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Dashkasan Sb-Au deposit,west iran is part of Sanandaj-Sirjan metamorphic-magmatic belt. The oldest unit is the slates and deformed dolomitized limestones of Jurassic age, locally thrusted over the Eocene volcanics. This sequence and the Eocene volcanics latter overlianed by fossiliferous Miocene limestone and younger volcano-plutonic rocks. The texture of igneous rocks is mainly porphiritic and microgranular. This deposit is vein type antimony-gold. The mineralization is conterolled by linear stractures.Ore is hosted by trachydacites ,dacites,tuff breccia and subvolcanic granodiorite mainly within the silisic and argillic alteration zones. Three type of mineral association can be found: (1) pyrite-quartz-gold-stibnite-realgar-orpiment. (2) pyrite-quartz-stibnite-realgar - orpiment. (3) pyrite-quartz-galena-sphalerite. High grade gold content is limited to silisic zones of stibnite veins. The Sb and Au contetent is considerable is the altered wall rocks as well,but decreases gradually from vein outwards.Fluid inclusion studies reveal that homogenization tempreture varies from 183c to 255c and salinity from 8.9 to 18.8 wt%Nacl for primery inclusions. Observation and laboratory investigations showeda close relationship between gold,antimony and quartz and suggested that mineralization is of epithermal acid-sulfat type.