Evaluation of geochemical data of Mohammad abad Konesorkh copper deposit, SW of Rayen,Kerman,Iran

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Abstract

Mohammad abad Khonesorkh area index with high potential to Cu mineralization is located in Urumieh-Dokhtar magmatic belt and in Kerman province. Geological units of the area consists mainly of andesitic, Trachyandesitic-basaltic andesite lava, andesite to basaltic andesite tuff and rhyolitic to dacitic tuff which is affected by hydrothermal solutions so the igneous rock units display some types of alterations such as phyllic, propylitic, argilic and silicic alterations and copper mineralization. Posotive correlation between Cu and Fe can be explained by the presence of chalcopyrite and correlation between Au, As and Bi are attributed to substitutions in Cu, Bi minerals and arsenopyrite. Multivariate statistical analyses have demonstrated three stages in mineralization in the area. The first stage shows: Cu, Au, Ag, Bi, Mn, Co and Zn; the second stage includes: Fe, Sb and the last stage comprises as, Cd and Mo enrichment.

Keywords:Alteration, Correlation, Mohammad abad Khonesorkh Copper deposit, Urumieh Dokhtar Zone

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