## Petrology and Geochemistry of volcanic rocks of Mohammad abad Khonesorkh copper deposit, SW of Rayen, Kerman

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The Upper Eocene volcanic rocks of Mohammad abad Khonesorkh area, in south-west of Rayen, are under the pyroxene-andesite rocks of Eocene volcano complex, which is a part of Uromieh-Dokhtar Volcanic Belt. The pyroxene-andesitic rocks consist of porphyritic textures with plagioclase, amphibole and pyroxene as the main mineral constituents. Secondary minerals such as chlorite, calcite, sericite and epidote exist in both types of rocks. Plagioclase as dominant mineral in these rocks generally display oscillatory zoning; sieve or dusty, cores are usually Ca-rich. Petrographic evidence and varying anorthite content (10 to 90%) of plagioclase and temperature estimates of clinopyroxene indicated fractional crystallization condition later than hydrothermal alteration and partial metasomatism occurred. Investigation of the results of geochemical data, and tectonic discrimination diagram indicates that: the volcanic rocks have characteristics of metaluminous, calk-alkaline, I-type granitic rocks and derived from a rich mantle. Moreover, they were formed in a volcanic arc setting in an active continental margin environment.

Key words: Geochemistry, Mohammad abad Khonesorkh, Kerman, Iran

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