Petrography, mineralogy and mineral chemistry of Bazman intrusive rocks, SE Iran

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Abstract: The Bazman intrusive rocks are located in northwest of Iranshahr, south of Lut block, and above of Makran subduction zone. The Bazman intrusive rocks are composed of gabbro, diorite, monzodiorite, quartz monzodiorite, granodiorite and granite. The Composition of clinopyroxenes is in the diopside-augite range and orthopyroxenes are enstatite. The studied amphiboles are classified as calcic (magnesio-hornblende) which point to the I type nature of Bazman intrusive rocks. Composition of plagioclase ranges from An$_{0.98}$ to An$_{57.5}$. Micas are Mg-rich biotite and show calc-alkaline characteristic (I-type). Based on mineral chemistry, the intrusive rocks show calc-alkaline characteristic (I-type) that correspond with tectono-magmatic characteristics related to subduction environments.

Keywords: amphibole; biotite; Lut block; Bazman; Iran.