Mineralogical and Geochemical characteristics of "Khezr-Abad pluton" NW of Taft, Iran.

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Abstract: Khezr-Abad pluton is cropped out in North-West of Taft. This granitoid seems to be younger than the surrounding metamorphosed rocks, particularly the lower cretaceous limestones and probably is implanted during Oligo-Miocene. The most volumetric abundances of the igneous rocks are: granodiorite, granite, quartzmonzo-diorite, quartz-diorite, and in a lesser amount tonalite, quartz-syenite and syenite. All granitoid rocks show Ba, K, Rb enrichment, and Nb, Sr, Ti depletion.

From the economical potential point of view, mineralization of marble, Fe-Cu-Pb-Zn skarn and non-metallic minerals such as kaolinite are considerable.

Geothermobarometry of rock forming minerals of this pluton indicates temperature of 810-985 °C and pressures of 2.43 – 6.2 kilobars (kbar).

Keywords: Granitoid, Granite, Diorite, Mineralization, Geothermobarometry.