

## Geochemistry and mineralogy of Lava flows from West of Hezar complex (Rayen - Kerman province)

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**Abstract:** Hezar complex is a part of Dehaj-Sarduiyeh volcano-plutonic belt in southwest of Rayen (Kerman province). Investigations on lava flows show that they have basalt, basaltic-trachy-andesite, trachy-andesite, and trachy-basalt composition. On the basis of petrographic studies, the rocks contain plagioclase (Oligoclase - Andesine), pyroxene (Augite - Diopside) and much altered olivine. Plagioclases show disequilibrium textures as a result of magma pressure decreasing. The formation of large plagioclase crystals is due to small amount of nucleation, rapid growth of crystals in the magma, because of magma's composition, and probably crystallization in low pressure. Geochemical investigations display that these lavas belong to calc-alkaline magmatic series and have characteristics of volcanic arc, and probably, the parent magmas were originated from the partial melting of an enriched mantle wedge above the subduction zone in Garnet stability field.

**Keywords:** *Hezar complex; Eocene volcanics; plagioclase; pyroxene; calc-alkaline*

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