

Komatiite !?

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Field relationship, petrography and geochemical data of ultramafic-mafic lavas of Fariman complex indicate that these rocks has been formed on surfce conditions [1], and that probable role of mantle plume are considered in formation of these rocks [2]. Figure 1 shows thin section of an ultramafic lava [3], and Table 1 shows classification of some samples.

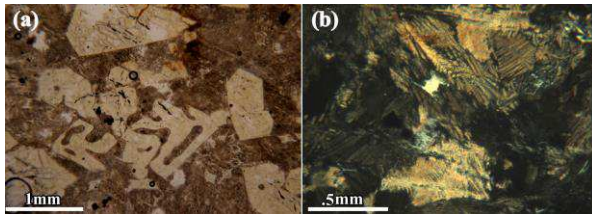


Figure 1: Disequilibrium texture in ultramafic rock, a. Skeletal, euhedral to subhedral phenocrysts of olivine in a groundmass of dendritic pyroxene, b. groundmass of a (dendritic pyroxene).

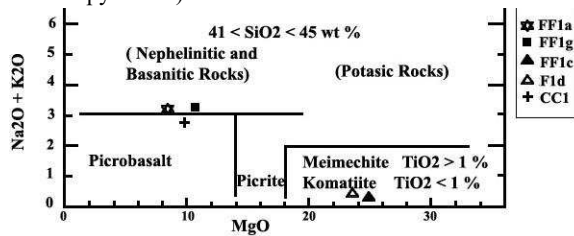


Figure 2: Na₂O+K₂O-MgO plot (Lebas, 2000) showing the komatiite nature of the samples.

Discussion of Results

It is true that these rocks are located among ophiolite, but based on geochemical data and field observation, they can be attributed to a point volcanic event, such as what occurring at hot spots, under the condition of high temperature of mantle plums, and It is not attributed to mid-ocean ridges that most researchers consider it's source.

[1] Arndt et al. (1979) American Mineralogist 64, 856-864.

[2] Condie (2005) Lithos 79, 491-504. [3] Karimi [2015]

Ferdowsi University of Mashhad (master's thesis). Lebas (2000) Journal of Petrology 41, 10467-1470