

## **Neogene Magmatism of Tuedeshk Area (Central Iran)**

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The Tuedeshk area is located in south eastern part of Nain in Central Iran and is a part of Uroumieh-Dokhtar magmatic belt. The stratigraphic sequence consists of Cretaceous limestone, Tertiary lavas and pyroclastics and Quaternary deposits.

The variation of Tuedeshk volcanic rocks (olivine basalt, andesite and dacite) are due to magma mixing and assimilation, fractional, crystallization process (AFC).

The Tuedeshk area is an important part of the geological formation of Iran, and its studies could help the overall geological survey of the country.

The geochemical studies including XRD, XRF and other analytical technique together with tectonomagmatic and spider diagrams were obtained for the samples Taken from the area.

The results obtained so far indicate that the Tuedeshk area belongs to extensional environment and is originated from a depleted mantle. The basaltic rocks of the area seem to be contaminated by upper crustal materials being enriched of K, Rb, Ba and Sr. The Tuedeshk basalt is compared with other basaltic types of different tectonic environments.

It seems to be comparable with steans basaltic rocks of Blue Mountain and mostly Rio Grand basaltic rocks in North America.