

Identification and Geology of Taftan volcano Calderas, Sistan and Baluchestan, Southeast of Iran

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Biabangard Habib^{1*}
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¹Department of Geology, Sistan and Baluchestan University of Zahedan, Iran

¹Department of Geology, Sistan and Baluchestan University of Zahedan, Iran

The Taftan volcano, Sistan and Baluchestan province, SE Iran, is above 4050 m sea level and currently dormant, showing fumarolic activity near the summit. This volcano is located in a structural zone along the subduction of Oman oceanic crust below the Eurasia plate. Large volcanic centers including Chah-Shahe, Bazman and Taftan in Iran and Soltan in Pakistan have been developed during the Quaternary. Anjerk and Tamandan are two calderas from of Taftan volcano that identified for the first time. Theses calderas are mostly composed of pyroclastics, lava flows, ignimbrites and tuffs. Various volcanic eruptions had occurred during these calderas formation. The exposed lava flows and pyroclastics of these calderas mainly consist of andesitic and dacitic in compositions. The geochemical evaluation of the major and trace element compositions indicate the magma erupted from this volcano show a calk-alkaline trend.

Keywords: Taftan Volcano, Makran belt, Anjerk caldera, Tamandan caldera, Geochemical evaluation, Iran