

Some Preliminary Data on the Alpine Magmatism and Related Mineralization in Sistan-Baluchestan, Middle East

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Sistan and Baluchestan, Middle East and Alpine/Himalayan conjunction, are characterized by a complex tectonics and interesting mineralization despite the poor data available. New field and post-field materials were received by a group led by well known regional geologists: Drs. A.Hushmandzadeh, M.A.A.Nogole Sadat and E.Romanko. Several specific preliminary results and peculiarities could be noted as: 1) one vast calc-alkaline Cretaceous/Paleocene - Quaternary volcanism-plutonism in this region instead of previous several independent events and two independent calc-alkaline and subalkaline magmas, 2) almost all metallogeny relates to magmatism here, 3) Cretaceous-Paleocene flysch is not quite sedimentary being really injected by many mineralized magmatic bodies, 4) Paleogene-Miocene Lar and Assagie fluid-rich subalkaline plutons are more metallogenically important (by Cu, Pb, Au, even Ag) comparing to calc-alkaline ones; Lar pluton is a deeper than Assagie one by formational, petrographic, geophysical and metallogenical data (as a school's example); Hormak trachybasalt massif is a cogenetic possibly to Lar and Assagie plutons mentioned 4) traces of an eastward magmatic migration in the Eastern Iran/Western Pakistan sometimes, 5) regional Cu-mineralization is a traditional one while other interesting components are: FeCr_2O_4 , Cu-Ni-Co, Mn, magnesite-huntite (ophiolite-related); Au-Mo-Pb-Cu-poor Zn (Paleogene magmatism-related); Fe, Mn, U (mainly hydrothermal processes) etc., 6) dominantly southward mass moving in a compressive and Hi-seismic conditions (more than 5-6 points by Rikhter's scale).