Geophysical Research Abstracts
Vol. 12, EGU2010-3425, 2010
EGU General Assembly 2010

Intraplate 'typical' and Ca-rich igneous rocks associated with carbonatites in Baluchistan, Middle East

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We present some interesting materials on a poorly studied Neogene-(Quaternary) igneous rocks of Baluchistan and Sistan province, east Iran. They were received by a group led by a regional specialists E. Romanko, A. Hushmanzadeh and M.A.A. Nogol Sadat. Some important features on the rock studied are as follows: mainly K-Na subalkaline rock affinity (also alkaline one too) with a middle K), not very High-Ti, not high, deep 87Sr/86Sr (ISr) = 0.7039 +/- 2 (trachyandesite) and 0.7049 +/- 3 (trachybasalt, both data by GIN RAS, Russia) alongside the 0.7049 on a vulcanite (Camp & Griffis, 1982), LREE-enrichment with a high LREE/HREE (La – more than 32 ppm), and a characteristical Eu/Eu* more than 1.1; up to high – 1/3 of CaO and up to a high - 0.45% of Sr in basic trachyandesites (meaning the real carbonatites ca 200 km to the east, Hanneshin, Afghanistan), complex correlation of some characteristical elements; then-High-Ti (rhutile, Ti-hornblende) and High-Ca phases (clinocoizite, also, Ca- rich ceolie – vayrakite is proposed), replacement of primary minerals due to a fairly strong rock-fluid interaction.
North-East tectonic-magmatic +/- metallogenic (economic regional Cu-Au +/- Pb, Zn, poor Ag, PGE, As, Hg, Bi etc. - e.x., Anarak deposits (E.Romanko, 1984)) zonation, related to the famous subduction of Arabian plate, exists, e.x. (calc-alkaline /1/ – intraplate /2/): 1: Eocene shoshonites – Paleocene-Oligocene calc-alkaline intrusives - Miocene-Recent calc-alkaline volcanic (-plutonic) rocks and 2: Paleogene? (Lut block)-Neogene subalkaline rocks - Quaternary Afghanistan carbonatites etc. Alpine compression on the moderate subductional depths up to 200 km (Trubitsin et al., 2004) in the Central Iran, at least, partly compensated, as proposed, by contemporaneous/ younger Pg?-N-Q extensional intraplate magmatism of the East Iran/ Afghanistan and nearby area.