Geophysical Research Abstracts
Vol. 12, EGU2010-5363, 2010
EGU General Assembly 2010


# Some data on Cenozoic intraplate and subduction-related events in west Baluchistan, Mid East

Alexander Romanko
(a-romanko@yandex.ru)

We present some data on the Alpine intraplate, and subduction-related rocks of the West Baluchestan Mid East, received by a group led by known regional specialists Dr. E. Romanko (Russia), Dr. A. Hushmandzadeh, and Dr. M.A.A. Nogol Sadat (Iran). Some important features on the intraplate rocks studied are as follows: mainly subalkaline affinity with the Middle-K, not very High-Ti, lower 87Sr/86Sr (ISr) = 0.7039 +/-2 and 0.70489 +/-1.8; also calc-alkaline basalts- dacites, Bazman volcano - 0.70456 +/-0.5 (all data by GIN RAS) alongside the ISr=0.7049 on a 'volcanite' (Camp & Griffis, 1982). Then, we have a LREE-enrichment with a high LREE/HREE, and a characteristical Eu/Eu* more than 1.1; up to high – 1/3 of CaO and 0.45% of differently correlated Sr in the basic trachyandesites (meaning the real carbonatites of Hanneshin, ca 200 km to the east, Afghanistan), complex correlation of some characteristical elements; then High-Ti (rhutile, Ti-hornblende) and High-Ca phases (Ca-ceolite, clinozoisite), replacement of primary minerals due to a strong rock-fluid interaction etc. 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. Latter is related to the famous subduction of the Arabian plate, exists, e.x. (subduction-related /1/ – generally more younger? intraplate /2/ rocks ): 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 (in a theory - Trubitsyn et al., 2004) in the Central Iran, at least, partly compensated, as proposed, by a contemporaneous or younger (Pg?-N-Q) extensional intraplate magmatism of Eastern Iran, Afghanistan and nearby area. Metallogeny of West Baluchistan is mainly controlled by a Cretaceous - Recent magmatism.
I am very gratefully acknowledged Dr. E. Romanko, Dr. A. Hushmandzadeh, and Dr. M.A.A. Nogol Sadat for their Hi-professional leadership in the field investigation and a great help.