

A PROBABLE CAUSE FOR THE FORMATION OF LARGE IRON DEPOSITS IN CENTRAL IRAN.

**YAGHUBPUR, ABDOLMAJID, Department of Geology,
Tarbiat Moalem University, Mofateh Av. Tehran, 15614, Iran.**

According to studies done by several geologists, central Iran is a fragment of Gondwana land which is underlain by precambrian basement rocks. A huge neoproterozoic volcanic field associated with ring fracture intrusions, ring grabens and resurgent granite which are partly covered by shallow sea sediments have already been recognized and studied in central Iran. Several iron deposits and apatite rich iron ores have been discovered and some are currently mined in this part of Iran.

Previously the iron deposits of central Iran were interpreted to be metasomatic and magmatic in origin and it is believed that Iron rich magma originated from the granite and redeposited in the metasomatic halo around the granite.

The cause for the formation of these ring grabens, ring fracture intrusions, numerous stocks and dikes and diatremes however, are still on debate. One probable cause for the formation of these features may presumably be the result of meteorite impacts and the shape of the cross sections made from different ore bodies seem to confirm this idea. Several thin sections and polished - thin sections were prepared and studied in order to find more documents on this idea, and the results are still promising.