

C.V.

Dr Mohammad Reza Ghorbani Updated on 12 Sep. 2009

I. PhD THESIS:

Ghorbani, M.R. 1999. Petrology and geochemistry of volcanic rocks from the Warrumbungle Volcano, New South Wales, Australia. PhD thesis, The University of Sydney, 222 p.

II. ACADEMIC EXPERIENCES:

Assistant Professor of Igneous Petrology and Geochemistry, Tarbiat Modares University, since Feb. 2001

III. ADMINISTRATIVE EXPERIENCES:

Head of Petrology Group, Tarbiat Modares University, 2005-2008

IV. MEMBERSHIP of SCIENTIFIC SOCIETIES:

Geological Society of Iran
Society of Crystallography and Mineralogy of Iran
Mineralogical Society of America
American Geophysical Union

V. RESEARCH INTERESTS:

Geochemistry of igneous rocks
Petrology and phase diagrams
Trace element modeling

VI. JOURNAL PAPERS (INTERNATIONAL):

- 1- Ghorbani, M.R. and Middlemost, E. 2000. Geochemistry of pyroxene inclusions from the Warrumbungle Volcano, New South Wales, Australia. *American Mineralogist*, 85, 1349-1367.
- 2- Ghorbani, M.R. 2006. Lead-enrichment in Neotethyan volcanic rocks from Iran; the implications of a descending slab. *Geochemical Journal*, 40 (6), 557-568.

VII . PUBLICATIONS IN IRANIAN JOURNALS:

- 1- Ghorbani, M.R. 2005. The role of magmatic differentiation and crustal partial melting in the genesis of acidic volcanic rocks, S Danesfahan. *Geosciences (Quarterly)*, 12 (55), 114-119.
- 2- Ghorbani, M.R. 2005. Geochemistry and petrology of volcanic rocks from south Danesfahan and south Karaj; concurrent island arc and intraplate magmatism. *Journal of Science, University of Tehran*, 31 (1), 21-41.
- 3- Ghorbani, M.R. and Yasaghi, A. 2006. Geochemistry and evolution of the contact zone between "Talun Tunnel" basic intrusive body and surrounding tuff rocks, Central Alborz. *Research Journal of University of Isfahan*, 23 (1), 193-206.
- 4- Ahmadian, J, Emami, M.H., Ghorbani, M.R. and Murata, M. 2007. Mineralogical-geochemical characteristics of potassic granitoids in regard with other granitoids in Kale-Kafi Complex (NE Anarak). *Geosciences (Quarterly)*, 16 (63), 154-163.
- 5- Mokhtari, M.A.A., Moinevaziri, H., Ghorbani, M.R. and Mehrparto, M. In Press . Petrology, geochemistry and tectonomagmatic environment of Kamtal intrusion (north Kharvana, Eastern Azarbaijan). *Geosciences (Quarterly)*, In Press.
- 6- Irannezhadi, M.R., Vossoughi Abedini, M., Ghorbani, M.R., Pourmoafi, M. In Press. Geochemistry of Tertiary volcanic rocks in the Tehran region, southern flanks of central Alborz Mountains. *Research Journal of University of Isfahan*, In Press. In English.

VIII. LIST OF PAPERS PRESENTED IN INTERNATIONAL CONGRESS:

- 1- Ghorbani, M.R. 1997. New data on the origin of the Cenozoic eastern Australian basaltic province. Abstracts, IAVCEI, Puerto Vallarta, Mexico. January 19-24, 1997. P.162.
- 2- Ghorbani, M.R. 1999. Upper mantle-lower crust boundary xenoliths from the Warrumbungle Volcano, New South Wales, Australia. *American Geophysical Union, Fall meeting, San Fransisco*, 10-13 Dec. 1999. (Nov. 16 supplemental issue of *Eos*)
- 3- Ghorbani, M.R. 2000. Two distinct magmatic lineages from the Warrumbungle Volcano, New South Wales, Australia. 31st International Geological Congress. Rio de Janeiro, Brazil, August 6-17, 2000.
- 4- Ghorbani, M.R. 2001. Geochemistry of green tuffs from Alborz Mountain Range, northern Iran. *Geological Society of America, Annual meeting, Nov. 5-8 2001, Boston. Abstracts with Programs*, Vol. 33, No. 6, October 2001.
- 5- Ghorbani, M.R. 2001. Western Alborz volcanic rocks, a new geochemical viewpoint. *American Geophysical Union, Fall meeting, San Fransisco*, 10-14 Dec. 2001. (Nov. 20 supplemental issue of *Eos*).
- 6- Ghorbani, M.R. 2002. Petrology and geochemistry of basic volcanic rocks from Saveh region, NW Iran. *American Geophysical Union, Spring meeting, Washington, DC*, 28-31 May 2002. (May 7 supplemental issue of *Eos*).
- 7- Ghorbani, M. R., Rostami, G., and Ghaderi, M 2002. A lamprophyric dyke from Milakuh, SW Damghan, Iran. 12th Annual VM Goldschmidt Conference, Davos, Swiss, 18-23 August 2002.
- 8- Ghaderi, M., and Ghorbani, M. R, 2002. Tungsten-tin deposits in southwest of Shazand, Iran. 12th Annual VM Goldschmidt Conference, Davos, Swiss, 18-23 August 2002.
- 9- Ghorbani, M. R, 2003. Phonolitic and trachytic rocks from the Warrumbungle volcano, different sources and conditions. *European Geophysical Society (EGS-AGU-EUG-Joint Assembly)*, Nice,

- France, 6-11 Apr. 2003 Geophysical Research Abstracts, Vol. 5, 09241. Ghorbani, M.R.
- 10- Ghaderi, M. Concurrent island arc and intraplate volcanism, Eshtehard-Karaj area, NW Iran. 13th Annual V.M. Goldschmidt Conference, 7-12 Sep. 2003, Kurashiki, Japan, *Geochimica et Cosmochimica Acta*
- 11- Fardindoost, Z., Ghaderi, M., Ghorbani, M.R. 2003. Tungsten mineralisation associated with granitoid rocks in SW Arak, Iran. American Geophysical Union 2003 Fall Meeting. 8-12 Dec. 2003, San Francisco, U.S.A, *EOS Trans. AGU* 84(46).
- 12- Ghorbani, M.R. 2004. Neotethyan island arc volcanism, Danesfahan, Iran. 32nd International Geological Congress. August 2004, Florence, Italy.
- 13- Ghorbani, M.R. 2004. Trace element geochemistry of Tertiary volcanic rocks, west Tehran, Iran. 6th International Conference on Geochemistry. 15-16 Sep. 2004, Alexandria, Egypt. 531-541.
- 14- Irannezhadi, M.R., Vossoughi A., M., Ghorbani, M.R., Pourmoafi, M. 2006. Geochemical characteristics of Tertiary subvolcanic rocks from southern central Alborz Mountains, north of Tehran. European Geophysical Union (EGU). 2-7 Apr. 2006, Vienna, Austria.
- 15- Irannezhadi, M.R., Vossoughi Abedini, M., Ghorbani, M.R., Pourmoafi, M. 2006. Tertiary subduction-related volcanism in the southern central Alborz Mountains, north of Tehran. IAVCEI General Assembly; International Conference on Continental Volcanism. 14-18 May 2006, Guangzhou, China.
- 16- Irannezhadi, M.R., Ghorbani, M.R., Vossoughi A., M., Pourmoafi, M. 2006. Tertiary arc-related volcanism in Central Alborz Mountains. European Geosciences Union (EGU), 2007.
- 17- Yeganehfar, H. and Ghorbani, M.R. 2007. Geochemistry and geodynamic setting of Paleogene volcanic rocks from south Ardestan, Iran. American Geophysical Union, Fall Meeting. San Francisco, U.S.A.

IX. LIST OF PAPERS PRESENTED IN IRANIAN CONGRESS:

- 1- Ghorbani, M.R. 2001. Mineralogy and geochemistry of the bentonites and zeolites from the Central Alborz tuffs. 9th Symposium of the Society of Crystallography and Mineralogy of Iran. 14-15 Nov. 2001, Gilan University, Rasht.
- 2- Ghorbani, M.R. 2002. Acidic volcanic rocks in the Saveh quadrangle. 20th Symposium on Geosciences, 17 Feb. 2002, Geological and Mineral Exploration Survey of Iran, Tehran.
- 3- Ghorbani, M.R., Ghaderi, M. and Rostami Paydar, G. 2003. Mineralogy and geochemistry of the Mila Kuh lamprophyre and its petrogenesis. 10th Symposium of the Society of Crystallography and Mineralogy of Iran. 1 Jan. 2003, Sistan and Baluchestan University, Zahedan.
- 4- Tavakkoli, H., Ghaderi, M., Ghorbani, M.R., and Mohajjel, M. 2003. A new insight into the origin of Baba Ali Iron ore deposit, NW Hamedan. 7th Symposium of the Geological Society of Iran. 26 Aug. 2003, Esfahan University, Esfahan.
- 5- Ghorbani, M.R. 2004. South Danesfahan basalts and their metasomatized mantle source. 22nd Symposium on Geosciences, 16 Feb. 2004, Geological and Mineral Exploration Survey of Iran, Tehran.
- 6- Ahmadian, J., Emami, M.H., Ghorbani, M.R. and Lotfi, M. 2004. An investigation of the genesis of the Kalkafi granitoids (NE Anarak, Central Iran), based on petrography. 22nd Symposium on Geosciences, 16 Feb. 2004, Geological and Mineral Exploration Survey of Iran, Tehran.
- 7- Ahmadian, J., Emami, M.H., Ghorbani, M.R. and Lotfi, M. 2005. Potassic granitoids from Kalkafi volcano-plutonic complex (NE Anarak), and their modes of formation. 23rd Symposium on Geosciences, 21 Jan. 2005, Geological and Mineral Exploration Survey of Iran, Tehran.
- 8- Ramezani, A., Ghasemi, H. and Ghorbani, M.R. 2005. Geochemistry and tectonic setting of the NW Saveh granitoids. 23rd Symposium on Geosciences, 21 Jan. 2005, Geological and Mineral Exploration Survey of Iran, Tehran.

- 9- Mokhtari, M.A.A., Moinevaziri, H., Ghorbani, M.R. and Mehrparto, M. 2005. Petrography and petrology of the Kamtal plutonic body (E Jolfa and Siahруд). 9th Symposium of the Geological Society of Iran. 30-31 Aug. 2005, Tarbiat Moalem University, Tehran.
- 10- Nasiri Bezenjani, R., Ghorbani, M.R. and Dabiri, R. 2006. Volcanic rocks from Mehr-Zamin area, (N Tafresh); occurrence of subalkaline and alkaline magmatism. 24th Symposium on Geosciences, 27 Feb. 2006, Geological and Mineral Exploration Survey of Iran, Tehran.
- 11- Dabiri, R., Ghorbani, M.R., Nasiri Bezenjani, R. and Rashid Nezhad, N. 2006. Low pressure fractionation; main differentiation process in evolution of volcanic rocks from NW Kashan. 24th Symposium on Geosciences, 27 Feb. 2006, Geological and Mineral Exploration Survey of Iran, Tehran.
- 12- Mokhtari, M.A.A., Moinevaziri, H., Ghorbani, M.R. and Mehrparto, M. 2006. Petrography and petrology of the Ghoolan batholith (N Azarbaijan). 24th Symposium on Geosciences, 27 Feb. 2006, Geological and Mineral Exploration Survey of Iran, Tehran.
- 13- Akbari Moghaddam, M., Rashid Nezhad, N. and Ghorbani, M.R. 2006. An introduction to the petrology of granitoids and mafic magmatic enclaves from NW Kashan. 24th Symposium on Geosciences, 27 Feb. 2006, Geological and Mineral Exploration Survey of Iran, Tehran.
- 14- Yeganehfar, H. and Ghorbani, M.R. 2007. Geochemistry and petrogenesis of basic volcanic rocks from south Ardestan. 25th Symposium on Geosciences, 20 Feb. 2007, Geological and Mineral Exploration Survey of Iran, Tehran.
- 15- Irannezhadi, M.R., Vossoughi Abedini, M., Ghorbani, M.R., Pourmoafi, M. 2007. Geochemistry of the subvolcanic igneous rocks from central Alborz, north of Tehran.. 25th Symposium on Geosciences, 20 Feb. 2007, Geological and Mineral Exploration Survey of Iran, Tehran.
- 16- Ahmadian, J., Emami, M.H., Ghorbani, M.R., Lotfi, M. and Murata, M. 2007. Accessory minerals as petrogenetic markers: A case study of the Kalkafi volcano-plutonic complex (NE Anarak). 26th Symposium on Geosciences, 20 Feb. 2007, Geological and Mineral Exploration Survey of Iran, Tehran.
- 17- Abrishami Kaysomi, H.R., Ghorbani, M.R., Mokhtari, M.A.A. 2009. Eocene acidic volcanic rocks from SW Nodushan (W Yazd); texture, geochemistry and their setting in the rock sequence. 12th Symposium of the Geological Society of Iran, 18-20 Feb. 2009, National Iranian Oil Company, Ahwaz.

X.OTHER RESEARCH PROJECTS:

- 1- Petrology and geochemistry of the volcanic rocks from Saveh area (SE Eshtehard and SW Danesfahan) (TMU, Approved in 2001, completed in 2003; Directed by: Ghorbani, M.R., Advised by: Ghaderi, M.)
- 2- Isotope and trace element geochemistry of tungsten (tin - copper) occurrences from S Shazand, Markazi Province (TMU, Approved in 2001, completed in 2004; Directed by: Ghaderi, M., Advised by: Ghorbani, M.R. and Rashid Nezhad, N.)

XI.THESES SUPERVISED:

- 1- Geochemistry and petrology of volcanic rocks from Mehre Zamin (NE Tafresh) (Nasiri Bezanjani, R., M.Sc., TMU, completed, July 2006)
- 2- Geochemistry and petrology of volcanic rocks from northwestern Kashan (Dabiri, R., M.Sc., TMU, completed, Sep. 2006)
- 3- Geochemistry and petrology of volcanic rocks from south Ardestan (Yeganeh Far, H., M.Sc., TMU, completed, July 2007)
- 4- Geochemistry and petrology of volcanic rocks from northeastern Naragh (Shahriari, S., M.Sc., TMU, completed, Sep. 2007)
- 5- Petrology and geochemistry of Tertiary volcanic rocks from northern Koohpayeh (NE Isfahan) (Movahedian Attar, F., M.Sc., TMU, completed, Jan. 2008)

- 6- Petrology and geochemistry of volcanic rocks from southwestern Nadoushan (W Yazd) (Abrishami Kaysomi, H.R., M.Sc., TMU, completed, June 2008)
- 7- Geochemistry and petrology of basic volcanic rocks from southwestern Shahrab (Ahmadvand A., M.Sc., TMU, completed, March 2009)
- 8- Geochemistry and petrology of intermediate-felsic volcanic rocks from southwestern Shahrab (Amoozad Khalili, D., M.Sc., TMU, completed, June 2009)
- 9- Geochemistry and petrology of the Tertiary igneous rocks from Sarvabad, W. Sanandaj (M.Sc., TMU, In progress)
- 10- Petrology and geochemistry of the Tertiary volcanic rocks from NW Neyshabour (M.Sc., TMU, In progress)
- 11- Petrology and geochemistry of Tertiary volcanic rocks from Taleghan (PhD, TMU, In progress)
- 12- The origin and evolution of basic volcanism in W Nain (PhD, TMU, In progress)

XII. THESES ADVISED:

- 1- Origin and genesis of tungsten and lead from Nezamabad, Revesht, Fizaneh and Bamsar deposits (Fardindoost, Z., M.Sc., TMU, completed, March 2004)
- 2- Mineralogy, geochemistry and genesis of of Baba Ali Iron ore deposit, NW Hamedan. (Tavakkoli, H., M.Sc., TMU, completed, June 2004)
- 3- Geochemistry and petrology of the granitoids from NW Ravand and its mineralization (Akbari Moghaddam, M., M.Sc., TMU, completed, Oct. 2006)
- 4- Petrology, geochemistry and petrogenesis of Qaradagh batholith (East of Syahrud, Eastern Azarbaijan) and related skarn (Mokhtari, M.A.A., PhD, TMU, completed, Feb. 2009)

XIII. COURSES OFFERED:

- 1- Petrology of igneous rocks (I, II)
- 2- Advanced geochemistry
- 3- Experimental petrology
- 4- Andesites
- 5- Differentiation processes in magma
- 6- Alkaline rocks