C.V.

Name : Dr. TALAT AHMAD, F.A.Sc.
Father's Name : Mr. Moinuddin Ahmad
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Academic Qualifications

B.Sc. (Hons) Geology	AMU, Aligarh	Ist Div.	1975
M.Sc. Geology	AMU, Aligarh	Ist Div.	1977
M.Phil. Ore Petrology-Geochemistry	JNU, New Delhi		1980
Ph.D. Igneous Petrology-Geochemistry	JNU, New Delhi		1985
Post Doctoral Fellow	University of Leicester (U.K.)		1988-89
Post Doctoral Fellow	University of Cambridge (U.K.)		1997-98
Post Doctoral Fellow	Nagoya University (Japan)		1999-2000

Expericnce

1. Geological Survey of India as Geologist (Jr.) from 28.2.80 to 2.6.81.
2. Wadia Institute of Himalayan Geology, Dehra Dun as Scientist-B from 16.7.84 to 30.9.89.
3. Post Doctoral Fellow with Prof. John Tarney at the Department of Geology, University of Leicester, U.K. for one year and six months (April 1988-Oct. 1989) under Government of India, Ministry of Human Resource Development Fellowship.
4. Wadia Institute of Himalayan Geology, Dehra Dun as Scientist-C from 1.10.89 to 30.9.94.
5. Wadia Institute of Himalayan Geology, Dehra Dun as Scientist-D from 1.10.94 to 30.9.99.
6. Post Doctoral Fellow with Prof. M.J. Bickle at the Department of Earth Sciences, University of Cambridge, for a period of six months (October'97-March'98) under NERC Fellowship.
7. Post Doctoral Fellow with Prof. T. Tanaka at the Department of Earth & Planetary Sciences, Nagoya University, Japan for ten months (October'99 to July'2000) under JSPS Fellowship.
8. Wadia Institute of Himalayan Geology, Dehra Dun. as Scientist E from 1.10.99 to 30.10.03
9. Professor at Department of Geology, University of Delhi, Delhi from 31st October'03 till date.

Academic Supervision

Supervised the following M.Phil/Ph.D. work:

M.Phil Dissertation

"Geochemistry of Mafic-ultramafic rocks around Gogunda, District Udaipur, Rajasthan" Co-Supervisor - Dr. M.Raza, AMU, Aligarh (Degree awarded to the student in the year 1991).

Ph.D. Thesis

1. "Geochemistry and tectonic significance of Early Proterozoic mafic and ultramafic rocks of Jharol belt of Aravalli orogen, northwestern Rajasthan, India. I acted as Co-Supervisor with Prof. M. Raza, AMU, Aligah (Degree awarded in the year 1995).

2. Ph.D thesis entitled "Isotopic mapping of major Himalayan structures" was submitted at the Department of Earth Sciences, The Open University, U.K. on 15th September'04 for the award of Ph.D degree. I acted as the External Supervisor for this thesis work. (Degree awarded on 4th February, 2005)

3. Ph.D thesis entitled "Petrological and geochemical studies of gneisses, granitoids and mafic dyke swarms in parts of Bastar craton" was submitted at the Department of Geology, A.M.U. Aligarh on 27th January'04 for the award of Ph.D degree. I acted as Co-Supervisor with Dr. M.E.A. Mondal, A.M.U. Aligarh. (Degree awarded in the year 2004)

4. Ph. D thesis entitled " Geochemistry of Amgaon Gneissic Complex, Central India" was submitted at the Department of Geology, University of Delhi on 10th December, 2007 by Mr. Nischal Wanjari.

Presently supervising six students for their Ph. D work at Delhi University and one each at I.I.T. Roorkee and The Open University, Milton Keynes, U.K. and Research School of Earth Sciences, Australian National University, Canberra, Australia. These students are working on the petrological-geochemical and tectonic aspects of the arc magmatic rocks of the Indus and Shyok sture zones, Ladakh region, Lesser Himalaya and Higher Himalayan Crystallines, NW Himalaya and on the Precambrian granitoids of the Central and western Indian shield.

Honours

(I) Honorary Research Associate of the Department of Geology, University of Leicester, U.K. (1988-89).
(II) Member of the Editorial Advisory Board of the Indian Journal of Geochemistry.
(III) Associate Member, Wadia Institute of Himalayan Geology Society.
(IV) Member, Expert Panel for the Science & Engineering Research Council 'Deep Continental Studies Programme' of the Department of Science & Technology, New Delhi.
(VI) Member, Expert Panel for the Science & Engineering Research Council 'HIMPROBE EAST' of the Department of Science & Technology, New Delhi.
(VII) Member, Board of Research Studies for the Faculty of Sciences, Department of Geology & Geophysics, The University of Kashmir, Srinagar, J&K.

(VIII) Member, Expert Committee for the Science & Engineering Research Council 'Utilization of Scientific Expertise of Retired Scientist (USERS) Programme of the Department of Science & Technology, New Delhi.
(IX) Convener, Vision Committee for Perspective Planning for the Academic Activities of the Department of Geology, University of Delhi, Delhi.
(X) Member, Advisory Committee for DRS, Department of Geology, University of Rajasthan, Jaipur
(XI) Regional Coordinator, International Geological Correlation Programme (IGCP) Project 516 on the "Geological anatomy of East and South East Asia"
(XII) Member, Editorial Board for Indian Journal of Geology
(XIII) Member Working Group for Geology for the National Science Digital Library (NSDL) Under the National Institute of Science Communication and Information Resources, CSIR, New Delhi
(XIV) Member, Editorial Board for Earth, Environmental and Planetary Sciences
(XV) Member, Expert Group for 'Electron Probe Micro-Analyzer (EPMA) National Facility at IIT, Kharagpur' under the Science & Engineering Research Council, Department of Science & Technology, New Delhi.
(XVI) Member Editorial Board for Journal of Virtual Explorer an electronic journal from Monash University, Australia. ISSN Number: 1441-8126 (Printed Journal); 1441-8142 (Online Journal) and 1441-8134 (CD-ROM Jpurnal)
(XVII) Member Editorial Board of the Journal of the Mineralogical Society of India
(XVIII) Member Editorial Board of the Gondwana Geological Magazine
(XIX) Member Editorial Board of the Journal of the Geological Society of India
(XX) Member Editorial Board Of the Journal of Earth System Science

Awards

(I) Received the prestigious **National Mineral Award, 1994** from the Government of India.
(II) **Fellow of the Indian Academy of Sciences**, Bangalore.
(III) Life Member Mineralogical Society of India
(IV) Research paper entitled "Geochemistry and Petrogenesis of Mandi-Darla Volcanics, Northwestern Himalayas", Precambrian Res. 37 : 231-256 (1987) was awarded Best paper of the year 1987 at WIHG, Dehra Dun.
(V) Awarded National Scholarship for Study Abroad by the Ministry of Human Resource Development, Govt. of India to carry out Post Doctoral Research at University of Leicester, U.K. during the period April 1988 to Oct. 1989.
(VI) Awarded the JSPS Invitation Fellowship of the Japanese Government for the year 1999-2000 to work in collaboration with Prof. Tsuyoshi Tanaka, at the Department of Earth and Planetary Sciences, Nagoya University, Japan.

Sponsored Ongoing Projects:

1. Geochemical, isotopic and geochronological characterization of granitoids from the Central Indian Tectonic Zones (CITZ) and Central Indian Shear Zones (CISZ) -Constraints on Precambrian crustal evolution. Funding Agency: Indo-Russian: ILTP Project, DST , (T. Ahmad: PI)
2. Petrogenesis and geological settings of mafic magmatism in the Proterozoic Cratons of Poland and Northern-Central India. Indo-Polish Joint Project, DST, (T. Ahmad: PI)

3. Gold metallogeny: an integrated approach through petrological-geochemical-structural studies in some less known potential prospects in the southern and northern sectors of the Indian peninsula. (T. Ahmad : Co-PI)

Research Publications

Ahmad, T. and Bhat, M.I., 1987. Geochemistry and petrogenesis of the Mandi-Darla volcanics Northwestern Himalaya. Precambrian Res. 27 : 231-256.

Bhat, M.I. and Ahmad, T., 1987. Geochemistry and Petrogenesis of the Bhowali-Bhimatal Volcanics, Kumaun Lesser Himalayas. Geosci. Jour. 8, 51-68.

Ahmad, T. and Rajamani, V., 1988. Geochemistry and petrogenesis of mafic inclusions within the Banded Gneissic Complex, near Nathdwara : implications to BGC-Aravalli relationship. Geol. Soc. India, Mem. 7, Precambrian of Aravalli Mountain, Rajasthan, India, pp. 327-340.

Bhat, M.I. and Ahmad, T., 1990. Petrogenesis and the mantle source characteristics of the Abor Volcanic Rocks, Eastern Himalayas. Jour. Geol. Soc. India, 36, 227-246.

Ahmad, T., 1990. Variable extents and depths of melting of mantle diapir(s): evidence from early Proterozoic komatiitic (picritic) magmas and its influence on associated tholeiites and crustal evolution in N.W. India. In : Proceedings of the Symposium on Diapirism with special reference to Iran, Vol. 2, pp. 15-35.

Ahmad, T. and Rajamani, V., 1991. Geochemistry and petrogenesis of the basal Aravalli Volcanics near Nathdwara, Rajasthan, India. Precambrian Res. 49 : 185-204.

Ahmad, T. and Tarney, J., 1991. Geochemistry and petrogenesis of Garhwal Volcanics : implications for evolution of the north Indian lithosphere. Precambrian Res. 50 : 69-88.

Ahmad, T., Tarney, J. and Mukherjee, P.K., 1991. Proterozoic mafic magmatism in Himalayas : global comparison - constraints on the nature of lithospheric sources. In : Teixeria, W., Ernesto, M. and Oliveria, E.P. (eds.) Exten. Abst. International Symposium on Mafic Dykes, Sao Paulo, Brazil, pp. 33-37.

Sharma, A., Ahmad, T. and Mukherjee, P.K., 1993. Mafic magmatism in parts of Himalaya : Geochemical constraints on their source characteristics and attendant tectonics. Geosciences, 2: 74-87.

Ahmad, T. and Tarney, J., 1993. North Indian Proterozoic volcanics, products of lithospheric extension: geochemical studies bearing on lithosphere derivation rather than crustal contamination. In : Cassyap, S.M., Valdiya, K.S., Khain, V.E., Milanovsky, E.I. and Raza, M. (eds.) Rifted Basins and Aulacogens: Geological and Geophysical Approach, pp. 130-147.

Hamatteh-Abu, Z.S.H., Raza, M. and Ahmad, T., 1994. Geochemistry and petrogenesis of early Proterozoic basic volcanic rocks of Jharol group, Rajasthan, Northwestern India. Jour. Geol. Soc. India, 44 : 141-156.

Bhat, M.I., Le Fort, P. and Ahmad, T., 1994. Bafliz volcanics NW Himalayas : origin of a bimodal-tholeiite alkali basalt suite. Chemical Geol., 114 : 217-234.

Ahmad, T. and Tarney, J., 1994. Geochemistry and petrogenesis of Late Archaean Aravalli Volcanics, basement enclaves and granitoids, Rajasthan. Precambrian Res. 65 : 1-23.

Ahmad, T., Islam, R., Khanna, P.P. and Thakur, V.C. 1996. Geochemistry, petrogenesis and tectonic significance of the basic volcanic units of the Zildat ophiolitic melange, Indus Suture Zone, eastern Ladakh, India. Geodinamica Acta. 9, 222-233.

Ahmad, T., Thakur, V.C., Islam, R., Khanna, P.P. and Mukherjee, P.K. 1998. Geochemistry and geodynamic implications of magmatic rocks from the Trans-Himalayan arc. Geochemical Jour. 32: 383-404.

Ahmad, T., Khanna, P.P. Chakrapani, G.J. and Balakrishnan, S. 1998. Geochemical characteristics of water and sediments of the Indus river, Trans-Himalaya, India: Constraints on weathering and erosion. Jour. Asian Earth Sciences, 16, 333-346.

Islam, R., Upadhyay, R., Ahmad T., Thakur, V.C. and Sinha A.K.1998. Pan-African magmatism and sedimentation in the NW Himalaya. Gondwana Research , 2, 263-270.

Ahmad, T., Mukherjee, P.K. and Trivedi, J.R. 1999. Geochemistry of Precambrian mafic magmatic rocks of the Western Himalaya, India: petrogenetic and tectonic implications. Chemical Geol., 160, 103-119.

Ahmad, T., Harris, N.B.W., Bickle, M.J., Chapman, H., Bunbury, J. and Prince, C. 2000. Isotopic constraints on the structural relationships between the Lesser Himalayan series and the Higher Himalayan series, Garhwal Himalaya. Geol. Soc. Amer. Bull. . 112, 467-477.

Mondal, M.E.A. and Ahmad, T. 2001. Bundelkhand mafic dykes, Central Indian Shield: implications for the role of sediment subduction in Proterozoic crustal evolution. The Island Arc, 10, 51-67.

Bickle, M.J., Harris, N.B.W., Bunbury, J.M., Chapman, H.J., Fairchild, I.J. and Ahmad, T. 2001. Controls on the $^{87}Sr/^{86}Sr$ ratios of carbonates in the Garhwal Himalaya, headwaters of the Ganges. Jour. Geology, 109: 737-753.

Kojima, S., Ahmad, T., Tanaka, T., Bagati, T.N., Mishra, M., Kumar, R., Islam, R. and Khanna, P.P. 2001. Early Cretaceous radiolarians from the Indus suture zone, Ladakh, northern India. News of Osaka Micropaleontologists, Spec. Vol. No. 12, p. 257-270.

Kojima, S., Gozu, C., Itaya, T., Ahmad, T., and Islam, R. 2002. Geology of Ladakh Himalaya, northwestern India. Jour. Geol. Soc. Japan, 108 : VII – VIII.

Ahmad, T, Harris, N.B.W., Tanaka, T., Bickle, M.J., Chapman, H., Khanna, P.P. and Bunbury, J. 2003. Nd-, Sr-isotopic and geochemical constraints on the source characteristics and petrogenesis of arc volcanics from the Shyok suture zone, Ladakh, India. Himalayan Tectonics (The Himprobe Results) Extn. Abst. Vol. pp 10-13, IIT Roorkee.

Bickle, M.J., Bunbury, J.M., Chapman, H.J., Harris, N.B.W., Fairchild, I.J. and Ahmad, T. 2003. Fluxes of Sr into headwaters of the Ganges. Geochim. Cosmochim. Acta, 67: 2567-2584.

Islam, R., Ahmad, T. and Rawat, B.S. 2003. Geochemistry and petrogenesis of the Phe volcanics, Zanskar, Western Himalaya: bearing on the birth of Neo-Tethys. Mem. Geol. Soc. India, 52: 339-357.

Hussain, M.F., Mondal, M.E.A. and Ahmad, T. 2004. Petrological and geochemical characteristics of the gneisses and granitoids from the Bastar craton, Central India: implication for subduction related magmatism. Gondwana Res., 7: 531-537.

Hussain, M.F., Mondal, M.E.A. and Ahmad, T. 2004. Geochemisrty of the basement gneisses and gneissic enclaves from Bastar craton: Geodynamic implications. Current Sci., 11: 1543-1547.

Ahmad, T., Harris, N.B.W., Islam, R., Khanna, P.P., Sachan, H.K. and Mukherji, B.K. 2005. Contrasting mafic magmatism in the Shyok and Indus Suture Zones: Geochemical constraints. Himalayan Geol., 26: 33-40.

Bickle, Chapman, H.J., Bunbury, J.M., M.J., Harris, N.B.W., Fairchild, I.J., Ahmad, T. and Pomies, C. 2005. Relative contribution of silicate and carbonate rocks to riverine Sr fluxes in the headwaters of the Ganges. Geochim. Cosmochim. Acta, 69: 2221-2240.

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Mondal, M. E. A., Hussain, M. F. and Ahmad, T. 2006. Continental Growth of Bastar Craton, Central Indian Shield during Precambrian via Multiphase Subduction and Lithospheric Extension/Rifting: Evidence from Geochemistry of Gneisses, Granitoids and Mafic dykes. Jour. Geosciences, Japan, 49: 137-151.

Ehiro, M., Kojima, S., Sato, T., Ahmad, T. and Ohtani, T. 2007. Discovery of Jurassic ammonoids from the Shyok Suture Zone to the northeast of Chang La Pass, Ladakh, northwest India and its significance. Island Arc, 16: 124-132.

Kumar, A. and Ahmad, T. 2007. Geochemistry of mafic dykes in parts of Chotanagpur Gneissic Complex: petrogenetic and tectonic implications. Geochemical Journal, 41: 173-186.

Mondal, M. E .A. Hussain, F.H. and Ahmad, T. 2007. Geochemistry and petrogenesis of the Proterozoic mafic dyke swarms of Bastar craton of central Indian shield. Jour. Appl. Geoch., 9: 17-27.

Ahmad, T., Dragusanu, C. and Tanaka, T. 2008. Provenance of Late Archean Aravalli mafic rocks from Rajasthan, Northwestern India: Nd isotopes, evidence for enriched mantle reservoirs. Precambrian Res., 162: 150-159.

Chambers, J., Argles, T., Horstwood, M., Harris, N.B.W., Parrish, R. and Ahmad, T. 2008. Tectonic implications of Palaeoproterozoic anatexis and Late Miocene metamorphism in the Lesser Himalayan Sequence, Sutlej Valley, NW India. Jour. Geol. Soc. Londaon, 165, 725-737.

Ahmad, T. 2008. Precambrian Mafic Magmatism in the Himalayan Mountain Range. Jour. Geol. Soc. India, 72, 85-92.

Ahmad, T., Tanaka, T., Sachan, H.K., Asahara, Y., Islam, R. and Khanna, P.P. 2008. Geochemical and isotopic constrains on the age and origin of the Nidar ophiolitic complex, Indus suture zone, Ladakh, India. Tectonophysics, 451, 206-224.

Ahmad, T., Deb, M., Tarney, J. and Raza, M. 2008. Proterozoic mafic volcanism in the Aravalli-Delhi Orogen, Northwestern India: Geochemistry and tectonic framework. Jour. Geol. Soc. India, 72, 93-111.

Hussain, M. F., Ahmad, T. and Mondal, M. E. A. 2008. Geochemistry of the Precambrian Mafic Dyke Swarms of the Central and Northeastern Parts of Bastar Craton, Central India: Constraints on Their Enrichment Processes. In: INDIAN DYKES: Geochemistry, Geophysics and Geochronology **(**Editors: Rajesh K. Srivastava, Ch. Sivaji and N. V. Chalapathi Rao), Narosa Publishing House Pvt. Ltd., New Delhi, India, pp. 397-412.

Caddick, M.J.Bickle, M.J., Harris, N.B.W., Holland, T.J.B., Horstwood, M.S.A., Parrish, R.R.and Ahmad, T. 2007. Burial and exhumation history of a Lesser Himalayan schist: Recording the formation of an inverted metamorphic sequence in NW India.Earth and Planetary Sciences Letters, 264: 375-390.

Wanjari, N. and Ahmad, T. 2007. Geochemistry of Kalpatri granitoids and mafic enclaves, Amgaon Gneissic Complex, Central India. Gondwana Geol. Mag. Spec. Vol. No. 10, 55-64.

Mondal, M.E.A., Chandra, R. and Ahmad, T. 2008. Precambrian Mafic Magmatism in Bundelkhand Craton. Jour. Geol. Soc. India, 72, 113-122.

Ahmad, T., Longjam, K. C., Fouzdar, B., Bickle , M. J. and Chapman, H. J. 2008. Petrogenesis and tectonic setting of bimodal volcanism in the Sakoli Mobile Belt, Central Indian Shield (Island Arc: Resubmitted after revision)

Ahmad, T. and Jayananda, M. 2008. Plutonism and Precambrian Magmatism in India. In: Glimpses of Geoscience Research in India. The Indian report to IUGS 2004-2008 (Editors:A. K. Singhvi, A. Bhattacharya and S. Guha). Indian National Science Academy, New Delhi, pp. 160-173.

Ram Mohan, M., Rajasekhar, V.B., Charan, S.N., Balaram, V. and Ahmad, T. 2008. Geochemistry of the foliated, coarse-grained amphibolites from the southern part of Gadag Greenstone Belt, Karnataka (Jour. Geol. Soc. India: In Press)

Mondal, M. E. A., Raza, M. and Ahmad, T. 2008. Geochemistry of the Mafic Dykes of the Aravalli-Bundelkhand Proto-Continent: Implications for Sub-Continental Lithosphere Evolution of North Indian Shield. In: INDIAN DYKES: Geochemistry, Geophysics and Geochronology **(**Editors: Rajesh K. Srivastava, Ch. Sivaji and N. V. Chalapathi Rao), Narosa Publishing House Pvt. Ltd., New Delhi, India, pp. 527-545.

Zyabrev, S., Kojima, S. and Ahmad, T. 2007. Radiolarian biostratigraphic constraints on the timing of the Nidar ophiolite generation and Dras arc volcanism onset: tracing the evolution of the closing Tethys along the Indus-Yarlung_Tsangpo suture (Stratigraphy: vol. 5, No. 2, In Press)

Ahmad, T., Khanna, P.P., Bickle, M.J., Chapman, H. and Bunbury, J. Geochemistry of the Trans-Himalayan high altitude Chandra, Bhaga and Chandra-Bhaga rivers, NW Himalayas, India: constraints on weathering (Under prepration)