CURRICULUM VITAE

Somnath Dasgupta

Ford Foundation Chair Professor (2016 - 2017)

Department of Geography Jamia Millia Islamia, New Delhi 110025



e-mail: somnathdasg@gmail.com somnathdg@rediffmail.com

Permanent Residence

West Wind, Block 4, Flat 3B, 78 Raja S.C. Mallick Road, Kolkata-700084

Tel: 91-33-24238057

Cell: +91-9831167145

Personal data:

Date of birth: 13 October, 1951

<u>Professional experience</u>:

A. Geologist, Geological Survey of India, 1978 - 1981

- B. 35 Years Undergraduate and Postgraduate teaching experience as:
 - 1. Lecturer in Geology, Jadavpur University, 1981 1986
 - 2. Senior Lecturer in Geology, Jadavpur University, 1986 1990
 - 3. Reader in Geology, Jadavpur University, 1990 1997
 - 4. Professor in Geology, Jadavpur University, 1997 2007
 - 5. Professor, Indian Institute of Science Education & Research, Kolkata, 2007 2015 (including Deputation period)
 - 6. Director, National Centre of Experimental Mineralogy & Petrology, University of Allahabad, August 2010 July, 2011
 - 7. Director-in-charge, Indian Institute of Science Education & Research, Kolkata September 2011 January, 2012

- 8. Dean, Research & Development, Indian Institute of Science Education & Research, Kolkata, April 2012 June, 2012
- 9. Vice Chancellor, Assam University, Silchar, June 2012 November 2015
- Distinguished Visiting Professor, Indian Institute of Technology, Bombay (2014 - 16)
- 11. Adjunct Professor, Indian School of Mines, Dhanbad (2016-17)

Academic Qualification:

B.Sc. (Honours in Geological Sciences), Jadavpur University, 1971

M.Sc. (Applied Geology), Jadavpur University, 1974

Ph. D. (Science), Jadavpur University, 1979.

Title of Ph.D. thesis: A study of the geology and ore mineralisation along the Madan Kudan - Kolihan section, Khetri Copper Belt, Rajasthan, India.

<u>Research Specialization</u>: Geochemistry, Metamorphic Petrology, Ore Geology, Precambrian Geology

Ph.D Guidance: 20 (Completed)

Research Projects:

Council of Scientific & Industrial Research: 3 (Completed)

Department of Science & Technology: 7 (Completed), 1 (Ongoing)

National Science Foundation, USA – DST Collaborative Project: 1 (Completed)

Deutsche Forschungsgemeinschaft : 1 (Completed)

Indo-Australia Strategic Research Fund: 1 (Completed)

DFG (Germany) funded Research Project: 1 (Ongoing)

Awards:

(National)

- 1. Recipient of University Gold Medal, 1974
- 2. Recipient of P.N. Bose Medal from Jadavpur University, 1974
- 3. Recipient of N.N. Chatterjee Medal from the Asiatic Society, Calcutta, 1979
- 4. Recipient of Career Award by the University Grants Commission, 1988
- 5. Recipient of Krishnan Medal from the Indian Geophysical Union, 1989.
- 6. Recipient of National Mineral Award from the Government of India, 1996.
- 7. J.C. Bose Fellowship from the Department of Science & Technology, Government of India, 2007-2017.
- 8. Teachers Award, Indian National Science Academy, 2014

- 9. Distinguished Visiting Professor, Indian Institute of Technology, Bombay (2014-16)
- 10. Adjunct Professor, Indian School of Mines, Dhanbad (2016-17)
- 11. D.N. Wadia Medal, Indian National Science Academy, 2018

(International)

- 1. Recipient of Post Doctoral Fellowship from the Government of Japan 1984-85.
- 2. Recipient of Fellowship from the Alexander von Humboldt Foundation 1991-92, 1997, 2006, 2008, 2011, 2017.
- 3. Awarded Mercator Guest Professorship by the German Research Foundation, 2002-03.
- 4. Awarded Visiting Professorship by Hokkaido University, 2007

Academic Assignments abroad:

- 1. Post-Doctoral Fellow at Hokkaido University, 1984-85
- 2. Visiting Scientist to the USSR, 1989
- 3. Alexander von Humboldt Foundation sponsored Post-Doctoral Fellow at the University of Bonn, Germany in 1991-92, 1997, and at Ruhr University, Bochum in 2006, 2008, 2011, 2017
- 4. Visiting Scientist at the University of Bonn, Germany, 1996
- 5. Visiting Scientist at Hokkaido University, Japan, 1998, 1999, 2006
- 6. Visiting Scientist at University of Arizona, USA, 2001-2002
- 7. Mercator Guest Professor at Rühr University, Bochum, Germany, 2002-2003
- 8. Visiting Professor, Hokkaido University, Japan, 2007
- 9. Visiting Scientist, LEMIT, La Plata, Argentina, 2010

Membership of Science Academies:

- 1. Fellow of the Indian Academy of Sciences
- 2. Fellow of Indian National Science Academy
- 3. Fellow of the National Academy of Sciences
- 4. Fellow of West Bengal Academy of Science & Technology
- 5. Fellow of the Academy of Sciences for the Developing World (TWAS), Trieste, Italy
- 6. Member, American Chemical Society

Other Important Assignments:

- **1.** Keynote Speaker on Manganese Deposits at the 8th IAGOD Conference, Ottawa, 1990
- 2. International Co-Leader of UNESCO-IGCP Project 318 (Polymetallic nodules), 1992-1995.
- **3.** Co-Convenor of Session 9-7 (Proterozoic events in East Gondwana) in the 31st IGC, Rio de Janeiro, 2000
- 4. Leader of the Indian Delegation to the 31st IGC, Rio de Janeiro, Brazil, 2000
- **5.** Chairman, Indian National Committee of the International Union of Geological Sciences, 2000-2003
- **6.** Member, Programme Advisory Committee in Earth Sciences, Department of Science & Technology, Government of India, 1998-2000.
- **7.** Member, Earth and Environmental Sciences Research Committee, Council of Scientific & Industrial Research, Government of India, 2001-2003, 2008-2011.
- 8. Council Member, Geological Society of India 2001-2003, 2010-2012
- **9.** Member of the Editorial Board of the International Journal Gondwana Research 2000-2005.
- 10. Associate Editor, Precambrian Research (Elsevier, Amsterdam) 2005-2013.
- **11.** Member, Programme Advisory and Monitoring Committee, Deep Continental Studies, Department of Science & Technology, Government of India, 2005-2007.
- **12.** Honorary Adviser, DAAD New Delhi 2006-09.
- **13.** Member, Editorial Board, Journal of the Geological Society of India, 2008-2015
- 14. Associate Editor, Journal of Earth System Science (Springer) 2008-2012
- **15.** Member of the Editorial Board of Geological Journal (Wiley-Interscience) 2010-2013
- **16.** Member of the Working Group on 12th Plan proposals for the Ministry of Earth Sciences, Government of India, 2011.
- **17.** Member, Research Council, National Institute of Oceanography, Goa, 2010-2016.
- **18.** Member, Programme Advisory and Monitoring Committee, Ministry of Earth Sciences, 2012-2016.
- **19.** Member of the Governing Body of NCESS, Trivandrum (Ministry of Earth Sciences, Government of India) 2014-16.
- **20.** Chairperson, Research Advisory Council, NCESS, Trivandrum (Ministry of Earth Sciences, Government of India) 2014-16
- 21. Member of Editorial Board of Precambrian Research (Elsevier): 2013-15
- 22. Associate Editor, Current Science 2014-2017
- **23.** Member, Programme Advisory and Monitoring Committee, Ministry of Earth Sciences, 2016-2019.
- **24.** Chair, Field Programme Committee for IGC 2020
- **25.** Member, Steering Committee for Climate Change, Ministry of Earth Sciences, 2017-2020

Existing Research Collaborations:

- 1. University of Bonn, Germany,
- 2. Hokkaido University, Japan,

- 3. University of Arizona, U.S.A.
- 4. RuhrUniversity, Bochum, Germany
- 5. Carleton University, Ottawa, Canada
- 6. Polish Academy of Sciences, Krakow
- 7. University of Canberra, Australia

LIST OF PUBLICATIONS OF SOMNATH DASGUPTA

(Excluding Abstracts)

As of 06 March 2020

Total citation: 4251

H-index-39 I-10 index-84

Source: Google Scholar

- 1. **Dasgupta**, **S**. (1978). Sedimentary structures in the Precambrian Delhi Supergroup rocks and their significance. **Indian Journal of Earth Sciences**, **5**, **177-182**.
- 2. **Sarkar, S.C. and Dasgupta, S.** (1980). A study of the preexistent ores at the intrusive contact and the origin of the late hydrothermal veins at the Madan Kudan and Kolihan mines, Khetri copper belt, Rajasthan, India. **Neues Jahrbuch fur Mineralogie abh, 143, 102-112.**
- 3. **Sarkar, S.C. and Dasgupta, S.** (1980). Geologic setting, genesis, and transformation of sulfide deposits in the northern part of the Khetri copper belt, Rajasthan, India. **Mineralium Deposita, 15, 117-137**.
- 4. **Bhattacharya, P.K. and Dasgupta, S.** (1981). Evolution of massive granites in the Khetri copper belt, Rajasthan: implications in regional correlation. **Indian Journal of Earth Sciences, 8, 44-53**.
- 5. Banerjee, H., Dasgupta, S., Sarkar, S.C. and Bhattacharya, P.K. (1983). Evolution of the lesser Himalayan Matapelites of the Sikkim-Darjeeling region, India and some related problems. Neues Jahrbuch fur Mineralogie Abh, 145, 197-209.
- 6. Bhattacharya, P.K., Dasgupta, S., Fukuoka, M., Hirowatari, F. and Roy, S. (1984). Mineralogy and mineral chemistry of metamorphosed manganese oxide ores and manganese silicate-oxide rocks: the example from the Precambrian Sausar Group, India. Proceedings 27th. International Geological Congress, Moscow, Volume 12, VNU Press, 293-310..
- Dasgupta, S., Fukuoka, M. and Roy, S. (1984). Hematite-pyrophanite intergrowth in gondites, Chilka area, Sausar Group, India. Mineralogical Magazine, 48, 558-560.

- 8. Dasgupta, S., Banerjee, H. and Majumdar, N. (1984). Contrasting trends of mineral reactions during progressive metamorphism in interbanded pelitemanganese oxide sequence example from Precambrian Sausar Group, India. Neues Jahrbuch fur Mineralogie Abh, 150, 95-102.
- 9. Bhattacharya, P.K., Dasgupta, S., Fukuoka, M. and Roy, S. (1984). Geochemistry of braunite and associated Phases in metamorphosed non-calcareous manganese ores of India. Contributions to Mineralogy and Petrology, 87, 65-71.
- 10. Dasgupta, S., Banerjee, H. and Fukuoka, M. (1985). Oxidation gradients in metamorphosed non-calcareous manganese ores. Contributions to Mineralogy and Petrology, 90, 258-261.
- 11. **Dasgupta, S., Miura, H. and Hariya, Y.** (1985). Stability of Mn-cummingtonite an experimental study. **Mineralogical Journal, 12, 251-259.**
- 12. Roy, S., Dasgupta, S., Bhattacharya, P.K., Fukuoka, M., Banerjee, H. and Majumdar, N. (1986). Petrology of Mn silicate-carbonate-oxide rock of Sausar Group, India. Neues Jahrbuch fur Mineralogie Abh, 12, 561-568.
- 13. Dasgupta, S., Banejee, H., Miura, H. and Hariya, Y. (1986). Stability of braunite and associated phases in parts of the system Mn-Fe-Si-O. Mining Geology, 36, 351-360.
- 14. Dasgupta, S., Bhattacharya, P.K., Majumdar, N., Fukuoka, M., Banerjee, H. and Roy, S. (1987). Calderite-rich garnets from metamorphosed manganese silicate rocks of Sausar Group, India, and their derivation. Mineralogical Magazine, 51, 577-583.
- 15. Dasgupta, S., Bhattacharya, P.K., Chattopadhyay, G., Fukuoka, M., Banerjee, H. and Roy, S. (1987). Genetic reinterpretation of crystallographic intergrowth of jacobsite and hausmannite from natural assemblages. Mineralogy and Petrology, 37, 109-116.
- 16. Banerjee, H., Miura, H., Dasgupta, S., Hariya, Y. and Roy, S. (1987). Hollandite and cryptomelane in the manganese oxide deposits of the Sausar Group, India. Mineralogical Journal, 13, 424-433.
- 17. Dasgupta, S., Chattopadhyay, G., Bhattacharya, P.K., Fukuoka, M., Banerjee, H., Majumdar, N. and Roy, S. (1988). Petrology of Mg-Mn amphibole bearing assemblages in manganese silicate rocks of the Sausar Group, India. Mineralogical Magazine, 52, 105-111.
- 18. Bhattacharya, P.K., Dasgupta, S., Chattopadhyay, G., Banerjee, H., Fukuoka, M. and Roy, S. (1988). Petrology of jacobsite bearing assemblages from Sausar Group, India. Neues Jahrbuch fur Mineralogie Abh, 159, 101-111.
- 19. Mukhopadhyay, S., Dasgupta, S. and Roy, S. (1988). Distribution and character of micronodules in pelagic sediments from CentralIndianBasin, Indian ocean and their implications. Marine Mining, 7, 351-358.
- 20. Dasgupta, S., Chakraborti, S., Sengupta, P., Bhattacharya, P.K., Banerjee, H., Fukuoka, M. and Roy, S. (1989). Compositional

- characteristics of kinoshitalite from the Sausar Group, India. American Mineralogist, 74, 200-202.
- 21. Dasgupta, S., Sengupta, P., Bhattacharya, P.K., Fukuoka, M., Banerjee, H., Mukherjee, M. and Roy, S. (1989). Mineral reactions in manganese oxide rocks: P T X phase relations. Economic Geology, 84, 434-443.
- 22. Chaudhuri, A.K., Dasgupta, S., Bandyopadhyay, G., Sarkar, S., Bandyopadhyay, P.C. and Gopalan, K. (1989). Stratigraphy of the Penganga Group around Adilabad, Andhra Pradesh. Journal of the Geological Society of India, 34, 291-302.
- 23. Sengupta, P., Dasgupta, S., Bhattacharya, P.K. and Hariya, Y. (1989) . Mixing behavior in quaternary garnet solid solution and an extended Ellis and Green garnet clinopyroxene geothermometer. Contributions to Mineralogy and Petrology, 103, 223-227.
- 24. Dasgupta, S., Banerjee, H., Bhattacharya, P.K., Fukuoka, M. and Roy, S. (1990). Petrogenesis of metamorphosed manganese deposits and the nature of their precursor sediments. **Ore Geology Reviews**, **5**, **359-384**.
- 25. Dasgupta, S., Chakraborti, S., Sengupta, P., Fukuoka, M. and Roy, S. (1990). Ca -Ba -Sr carbonates from metamorphosed manganese deposits of the Sausar Group, India and their petrologic significance. Mineralogical Magazine, 54, 511-513.
- 26. Dasgupta, S., Chaudhuri, A.K. and Fukuoka, M. (1990). Compositional characteristics of glauconitic alterations of K-feldspar from India and their implications. Journal of Sedimentary Petrology, 60, 277-281.
- 27. Sengupta, P., Dasgupta, S., Bhattacharya, P.K. and Mukherjee, M. (1990). An orthopyroxene-biotite geothermometer and its applications in crustal granulites and mantle- derived rocks. Journal of Metamorphic Geology, 8,191-197.
- 28. Roy, S., Dasgupta, S., Fukuoka, M., Mukhopadhyay, S. (1990). Atypical ferromanganese nodules from pelagic areas of CentralIndianBasin, equatorial Indian Ocean. Marine Geology, 92, 269-283.
- 29. Sengupta, P., Dasgupta, S., Bhattacharya, P.K., Fukuoka, M., Chakraborti, S., and Bhowmick, S. (1990). Petrotectonic imprints in the sapphirine granulites from Anantagiri, Eastern Ghats mobile belt, India. Journal of Petrology, 31, 971-996.
- 30. Dasgupta, S., Sengupta, P., Fukuoka, M. and Bhattacharya, P.K. (1991). Mafic granulites from the Eastern Ghats, India further evidence for extremely high temperature crustal metamorphism. Journal of Geology, 99, 124-133.
- 31. Dasgupta, S., Chakraborti, S., Sengupta, P., Fukuoka, M., Bhattacharya, P.K., Banerjee, H. and Roy, S. (1991). Manganese rich minerals of the pumpellyite group from the Precambrian Sausar Group, India. American Mineralogist, 76, 241-245.

- 32. Sengupta, P., Karmakar, S., Dasgupta, S., and Fukuoka, M. (1991). Petrology of spinel granulites from Araku, Eastern Ghats, India, and a petrogenetic grid for sapphirine-free rocks in the system FMAS. Journal of Metamorphic Geology, 9,451-459.
- 33. Dasgupta, S., Sengupta, P., Guha, D., and Fukuoka, M. (1991). A refined garnet-biotite Fe-Mg exchange geothermometer and its application in granulites and amphibolites. Contributions to Mineralogy and Petrology, 109, 130-137.
- 34. Delian, F., Dasgupta, S., Bolton, B.R., Hariya, Y., Momoi, H., Miura, H., Jiaju, L. and Roy, S. (1992). Mineralogy and geochemistry of the Protorozoic Wafangzi deposits, China. Economic Geology, 87, 1430-1440.
- 35. Dasgupta, S., Roy, S. and Fukuoka, M. (1992). Depositional models for manganese oxide and carbonate deposits of the Precambrian Sausar Group, India. Economic Geology, 87, 1412-1418.
- 36. Dasgupta, S., Banerjee, H. and Bandyopadhyay, G. (1992). Manganese deposition in the Proterozoic the global perspective and the Indian scenario. In: SarkarS.C.(ed) Metallogeny related to the tectonics of the Proterozoic mobile belts. Oxford IBH Publishing Co. New Delhi. 163-176.
- 37. Dasgupta, S., Sengupta, P., Fukuoka, M., and Chakraborti, S. (1992). Dehydration melting, fluid buffering and decompressional P T path in a granulite complex from the Eastern Ghats, India. Journal of Metamorphic Geology, 10, 777-788.
- 38. Dasgupta, S., Sengupta, P., Mondal, A. and Fukuoka, M.(1993). Mineral chemistry and reaction textures in metabasites from the Eastern Ghats belt, India, and their implications. Mineralogical Magazine, 57, 113-120.
- 39. **Dasgupta, S.** (1993). Contrasting parageneses in high temperature calc-silicate granulites :example from the Eastern Ghats , India . (1993). **Journal of Metamorphic Geology, 11, 193-202**.
- 40. **Dasgupta, S. and Ehl, J.** (1993). Reaction texture in a spinel-sapphirine granulite from the Eastern Ghats, India and their implications. **European Journal of Mineralogy, 5, 537-543**.
- 41. Dasgupta, S., Sengupta, P., Fukuoka, M. and Roy, S.(1993) Contrasting parageneses in the manganese silicate-carbonate rocks from Parseoni, Sausar Group, India and their interpretation. Contributions to Mineralogy and Petrology, 114, 533-538.
- 42. Dasgupta, S., Hariya, Y. and Miura, H. (1993) Compositional limits of manganese carbonates and silicates in granulite facies metamorphosed deposits of Garbham, Eastern Ghats, India. Journal of Resource Geology (Japan), 17, 43-49.
- 43. Dasgupta, S., Sanyal, S., Sengupta, P. and Fukuoka, M. (1994) Petrology of granulites from Anakapalle evidence for Proterozoic decompression in the Eastern Ghats, India. Journal of Petrology, 35, 433-459.

- 44. Chaudhuri, A., Chanda, S.K. and Dasgupta, S.(1994) Proterozoic glauconitic peloids from South India: A study of their origin and significance. Journal of Sedimentary Research, A64, 765-770.
- 45. **Dasgupta**, **S**.(1995) Pressure-temperature evolutionary history of the Eastern Ghats granulite province: Recent advances and some thoughts. **Memoir of the Geological Society of India No.34**, **101-110**.
- 46. Dasgupta, S., Sengupta, P., Ehl, J., Raith, M. and Bardhan, S. (1995) Reaction textures in a suite of spinel granulites from the Eastern Ghats Belt, India: Evidence for polymetamorphism, a partial petrogenetic grid in the system KFMASH and the roles of ZnO and Fe₂O₃, Journal of Petrology 36, 435-462.
- 47. **Bhowmik,S., Dasgupta,S., Hoernes,S. and Bhattacharya, P.K.** (1995) Extremely high temperature calc silicate granulites from the Eastern Ghats Belt, India: Evidence for isobaric cooling, fluid buffering and terminal channelized fluid flow. **European Journal of Mineralogy,7, 689-703.**
- 48. **Dasgupta,S. and Sengupta,P.** (1995) Ultrametamorphism in Precambrian granulite terrains-evidence from Mg-Al granulites and calc-silicate granulites of the Eastern Ghats, India. **Geological Journal**, **30**, **307-318**.
- 49. Sengupta, P., Dasgupta, S., Bhui, U.K., Ehl, J and Fukuoka, M. (1996) Magmatic evolution of mafic granulites from Anakapalle, Eastern Ghats, India: Implications for tectonic setting of a Precambrian high grade terrain. Journal of Southeast Asian Earth Sciences (Pergamon, U.K.), Special Issue on Precambrian India within East Gondwana, M. Yoshida, M. Santosh & M. Arima (Eds), 14, 185-198.
- 50. Dasgupta, S. (1997) P-T-X relationships during metamorphism of manganeserich sediments: Present status and future studies. Geological Society of London Special Publications, K. Nicholson, J.R. Hein, B. Buhn & S. Dasgupta (Eds). 119, 327-337.
- 51. Sengupta, P., Sanyal, S., Dasgupta, S., Ehl, J., Fukuoka, M. & Pal, S. (1997) Controls of metamorphic reactions in calc-silicate granulites: evidence from Anakapalle, Eastern Ghats, India. Journal of Metamorphic Geology, 15, 551-564.
- 52. Dasgupta,S., Guha, D., Sengupta,P & Ehl, J. (1997). Pressure-temperature-fluid evolutionary history of the Sand Mata granulite complex, Rajasthan, India. Precambrian Research, 83, 267-290.
- 53. Dasgupta, S., Ehl, J., Raith, M.M., Sengupta, P. and Sengupta, P. (1997). Deep crustal contact metamorphism around the Chimakurthy mafic-ultramafic Complex, Eastern Ghats Belt, India. Contributions to Mineralogy and Petrology, 129, 182-197.
- 54. Neogi, S., Dasgupta, S. and Fukuoka, M. (1998). High P-T polymetamorphism, dehydration melting, generation of migmatites and granites in the Higher Himalayan Crystalline Sequence, Sikkim, India. Journal of Petrology, 39, 61-99.

- 55. **Dasgupta, S. and Sengupta, P.** (1998). Reworking of an isobarically cooled deep continental crust: evidence of decompressive P-T trajectory from the Eastern Ghats belt, India. **Indian Journal of Geology, 70,** 133-144.
- 56. Dasgupta, S., Sengupta, P., Pal, S. and Fukuoka, M. (1999) Evdence of superposed metamorphism from the Gokavaram area, Eastern Ghats belt,, and its relation with the KempLandCoast, East Antarctica. Gondwana Research, 2, 227-236.
- 57. Banerjee, R, Roy, S, Dasgupta, S, Mukhopadhyay, S and Miura, H (1999). Petrogenesis of ferromanganese nodules from east of the Chagos Archipelago, CentralIndianBasin, Indian Ocean. Marine Geology, 157, 145-158.
- 58. Sengupta, P., Sen, J., Dasgupta, S., Raith, M.M., Bhui, U.K. and Ehl, J. (1999). Ultra-high temperature metamorphism of meta-pelitic granulites from Kondapalle, Eastern Ghats Belt: Implications for the Indo-Antarctic correlation. Journal of Petrology, 40, 1065-1087
- 59. Dasgupta, S., Sengupta, P., Sengupta, P., Ehl, J. and Raith, M. (1999). Petrology of gedrite-bearing rocks from the Eastern Ghats belt, India: Evidence for reworking along mid-crustal ductile shear zones., Journal of Metamorphic Geology, 17, 765-778.
- 60. Neogi, S., Dasgupta, S., Sengupta, P and Das, N(1999). Ultrahigh temperature decompression in a suite of granulites from the Eastern Ghats Belt Bastar Craton contact, and its significance. Memoir Gondwana Research Group, eds. D. Rao & A.T. Rao, No. 5, 115-138.
- 61. Bose, S, Fukuoka, M., Sengupta, P and Dasgupta, S. (2000). Evolution of high Mg-Al granulites from Sunkarametta, Eastern Ghats: evidence for lower crustal heating-cooling trajectory . Journal of Metamorphic Geology, 18, 223-240.
- 62. Ganguly, J, Dasgupta, S, Cheng, W and Neogi, S. (2000). Exhumation history of a section of the Sikkim Himalayas, India: records in the metamorphic mineral equilibria and compositional zoning of garnet. Earth and Planetary Science Letters, 183, 471-486.
- 63. Dasgupta, S and Sengupta, P. (2000). Tectonothermal evolution of the Eastern Ghats granulite Belt, India: A metamorphic perspective. Geological Survey of India Special Publication No. 55, 259-274.
- 64. Dasgupta, S, Sengupta, S, Bose, S, Fukuoka, M and Dasgupta, S.(2001). Polymetamorphism in the schirmacher hills granulites, east Antarctica: implications for tectonothermal reworking of an isobarically cooled deep continental crust. Gondwana Research, 4, 337-357.
- 65. Rickers, K., Raith, M. and Dasgupta, S (2001). Multistage reaction textures in xenolithic high-MgAl granulites at Anakapalle, Eastern Ghats belt, india: examples of contact polymetamorphism and infiltration-driven metasomatism. Journal of Metamorphic Geology, 19, 563-582.

- 66. Das, K., Dasgupta, S and Miura, H. (2001) Stability of osumilite coexisting with spinel solid solution in metapelitic granulites at high oxygen fugacity. American Mineralogist, 86, 1423-1434.
- 67. Mukhopadhyay, S., Roy, S., Fukuoka, M, and Dasgupta, S. (2002) Controls of evolution of mineral assemblages in ultrahigh temperature metamorphosed Mn carbonate-silicate rocks from the Eastern Ghats belt, Idia. European Journal of Mineralogy, 14, 73-83.
- 68. Dasgupta, S and Sengupta, P. (2002) Ultrahigh temperature metamorphism in the Eastern Ghats Belt, India: evidence from high Mg-Al granulites. Proceedings Indian National Science Academy, 68 A, 21-34.
- 69. Sarkar, S., Santosh, M, Dasgupta, S & Fukuoka, M (2003). Very high density CO₂ associated with ultrahigh temperature granulites from the Eastern Ghats Belt, India. **GEOLOGY**, 31, 1, 51-54.
- 70. Dasgupta, S & Sengupta, P (2003). Indo-Antarctic correlation: A metamorphic perspective from the Eastern Ghats Belt, India. Geological Society of London Special Publication, No. 206, 131-142.
- 71. Das, K., Dasgupta, S & Miura, H (2003). An experimentally constrained petrogenetic grid in the silica-saturated portion of the system KFMASH at high temperatures and pressures. Journal of Petrology, 44, 1055-1075.
- 72. Sarkar, S., Dasgupta, S & Fukuoka, M (2003). Petrological Evolution of a Suite of
 - Spinel Granulites from Vizianagram, Eastern Ghats Belt, India, and Genesis of Sapphirine bearing Assemblages. **Journal of Metamorphic Geology, 21, 899-914.**
- 73. Dasgupta, S., Ganguly, J. & Neogi, S (2004). Inverted metamorphic sequence in the Sikkim Himalayas: Crystallization history, *P-T* gradient, and implications. Journal of Metamorphic Geology, 22, 395-412.
- 74. **Bhowmik**, **S.K. & Dasgupta**, **S (2004).**Tectonometamorphic Evolution of Boudin-type Granulites in the Central Indian Tectonic Zone and Northwestern India: A Synthesis and Future Perspectives. **Geological Survey of India**, **Special Publications**, **84**, **227-246**.
- 75. Dasgupta, S. & Pal, S (2005). Origin of Grandite Garnet in Calc Silicate Granulites: Mineral-Fluid Equilibria and Petrogenetic Grids. Journal of Petrology, 46, 1045-1076.
- 76. Chakraborty, S., Dasgupta, S. & Neogi, S (2005). Generation of migmatites and the nature of partial melting in a continental collision zone setting: An example from the Sikkim Himalaya. Indian Journal of Geology, 75, 38-53.
- 77. Das, K, Bose, S., Ohnishi, I., & Dasgupta, S(2006). Garnet-spinel intergrowth in ultrahigh-temperature granulite, Eastern Ghats, India: Possible evidence of an early Tschermak-rich orthopyroxene during prograde metamorphism. American Mineralogist, 91, 375-384..

- 78. Bose, S., Das, K., Dasgupta, S, Miura, H. & Fukuoka, M. (2006). Exsolution textures in orthopyroxene in aluminous granulites as indicators of UHT metamorphism: new evidence from the Eastern Ghats belt, India. Lithos, 92,506-523
- 79. Chakraborty, S., Dasgupta, S. & Neogi, S(2007). Nucleation kinetics controlled by chemical overstepping and its tectonic implication: An example from the Sikkim Himalaya. European Journal of Mineralogy, 19, 791-803.
- 80. Sengupta, P., Dasgupta, S., Raith, M & Datta, N.R (2008). Petrology across a calcareous rock-anorthosite interface from the Chilka Lake Complex, Orissa: Implications for Neo-Proterozoic crustal evolution of the northern Eastern Ghats Belt, India. Precambrian Research, 162, 40-58.
- 81. Saha, L., Bhowmik, S.K., Fukuoka, M & Dasgupta, S. (2008) Contrasting episodes of regional granulite facies metamorphism in enclaves and host gneisses from the Aravalli-Delhi Mobile Belt, NW India. Journal of Petrology, 49, 107-128.
- 82. Dasgupta, S., Chakraborty, S., & Neogi, S (2009). Petrology of an inverted Barrovian sequence of metapelites in Sikkim Himalaya: Constraints on the tectonics of inversion. American Journal of Science, 309, 43-84..
- 83. Sengupta, P & Dasgupta, S (2009). Modeling of metamorphic textures with c space: evidence of Pan-African high grade reworking in the Eastern Ghats belt, India. *In* Physics & Chemistry of the Earth's Interior,29-40, Indian National Science Academy-Springer Verlag.
- 84. Bhowmik, S.K., Saha, L., Dasgupta, S & Fukuoka, M(2009). Metamorphic phase relations in orthopyroxene-bearing granitoids: Implication for high-pressure metamorphism and prograde melting in the continental crust. Journal of Metamorphic Geology, 27, 695-715.
- 85. Bose,S, Das,K, Ohnishi,I., Torimoto,J., Karmakar,S, Shinoda, K & Dasgupta,S (2009). Characterization of oxide assemblages of a suite of granulites from the Eastern Ghata Belt, India: implication to the evolution of C-O-H-F fluid during retrogression. Lithos, 113, 483-497.
- 86. Goswami, S., Bhowmik, S.K. & Dasgupta, S (2009). Petrology of a nonclassical Barrovian inverted metamorphic sequence from the western Arunachal Himalaya, india. Journal of Asian Earth Sciences, 36, 390-406.
- 87. Karmakar, S., Bose, S., Das, K. and Dasgupta, S. (2009). Proterozoic Eastern Ghats Belt, India a witness of multiple orogenies and its lineage with ancient supercontinents. In: (Eds.) Talat Ahmad, Francis Hirsch, and Punya Charusiri, *Geological Anatomy of India and the Middle East*, Journal of the Virtual Explorer, Electronic Edition, ISSN 1441-8142, volume 32, paper 3.
- 88. Bhowmik, S.K., Bernhardt, H-J. & Dasgupta, S (2010). Grenvillian age high pressure upper amphibolite-granulite metamorphism in the Aravalii-Delhi mobile belt, northwestern India: New evidence from monazite chemical age and its implication. Precambrian Research, 178, 168-184.

- 89. Das, K., Bose, S., Karmakar, S.K., Dunkley, D.J. & Dasgupta, S (2011). Multiple tectonometamorphic imprints in the lower crust: first evidence of *ca*. 950 Ma (zircon U-Pb SHRIMP) compressional reworking of UHT aluminous granulites from the Eastern Ghats Belt, India. Geological Journal, 46, 217-239. DOI: 10.1002/gj.1246.
- 90. Bose, S., Dunkley, D.J., Dasgupta, S., Das, K. & Arima, M (2011). India-Antarctica-Australia-Laurentia connection in the Paleo-Mesoproterozoic revisited: Evidence from new zircon U-Pb and monazite chemical age data from the Eastern Ghats Belt, India. Bulletin Geological Society of America., 123, 2031-2049. doi: 10.1130/B30336.1
- 91. Jayananda, M., Banerjee, M., Pant, N.C., Dasgupta, S., Kano, T., Mahesha, N. & Mahabaleswar, B. (2012). 2.62 Ga high-temperature metamorphism in the central part of the Eastern Dharwar Craton: implications for late Archaean tectonothermal history. Geological Journal. DOI:10.1002/gj.1308, 47,213-236.
- 92. Bhowmik, S.K. & Dasgupta, S. (2012). Tectonothermal Evolution of the Banded Gneissic Complex in Central Rajasthan, NW India: Present Status and Correlation. Journal of Asian Earth Sciences (Elsevier), 49, 339-348. doi: 10.1016/j.jseaes.2011.07.025.
- 93. Banerjee,S., Chattoraj,S.L., Saraswati,P.K., Dasgupta,S., Sarkar,U & Bumby,A. (2012). The origin and maturation of lagoonal glauconites: a case study from the Oligocene Maniyara Fort Formation, western Kutch, India. Geological Journal (Wiley Interscience).,47,357-371.
- 94. Banerjee, S., Chattoraj, S.L., Saraswaty, P.K., Dasgupta, S. & Sarkar, U. (2012). Substrate control on origin and maturation of glauconites: Middle Eocene, Harudi Formation, Western Kutch, India. Marine & Petroleum Geology (Elsevier), 30, 144-160. doi:10.1016/j.marpetgeo.2011.10.008
- 95. Faak, K., Chakraborty, S. & Dasgupta, S. (2012). Petrology and tectonic significance of metabasite slivers in the Lesser and Higher Himalayan domains of Sikkim, India. Journal of Metamorphic Geology., 30,599-622.doi:10.1111/j.1525-1314.2012.00987.
- 96. Dasgupta, S, Bose, S & Das, K (2013). Tectonic evolution of the Eastern Ghats Belt, India. Precambrian Research. 227, 247-258.
- 97. Rubatto, D., Chakraborty,S. & Dasgupta ,S (2013). Timescales of crustal melting in the Higher Himalayan Crystallines (Sikkim, EasternHimalaya) inferred from trace element constrained monazite and zircon chronology. Contributions to Mineralogy & Petrology,165,349-372. DOI 10.1007/s00410-012-0812-y.
- 98. Sorcar, N, Hoffe, U., Dasgupta, S & Chakraborty, S (2014). High temperature cooling histories of migmatites from the High Himalayan Crystallines in Sikkim, India rapid cooling unrelated to exhumation. Contributions to Mineralogy & Petrology, 167(2), 1-34. doi:10.1007/s00410-013-0957-3
- 99. Goswami-Banerjee, S., Bhowmik, S., Dasgupta, S. & Pant, N.C. (2014). Burial of thermally perturbed Lesser Himalayan mid-crust: evidence from a detailed

- petrochemistry and P-T estimation of the western Arunachal Himalaya, India. Lithos (Elsevier), 208-209, 298-311.
- 100. Anczkiewicz, R., Chakraborty, S., Dasgupta, S., Mukhopadhyay, D.K., & Kołtonik, K.(2014)Timing, duration and inversion of progradeBarrovian metamorphism constrained by highresolution Lu-Hf garnet dating: A case study fromthe Sikkim Himalaya, NE India.Earth & Planetary Science Letters (Elsevier), 407, 70-81.
 http://dx.doi.org/10.1016/j.epsl.2014.09.035
- 101. Gaides, F., Arianne, P-R., Chakraborty, S., Dasgupta, S & Jones, P. (2015) Constraining the conditions of Barrovian metamorphism in Sikkim, India: P-T-t paths of garnet crystallization in the Lesser Himalaya. Journal of Metamorphic Geology, 33, 23-44.
- 102. Chakraborty,S., Anczkiewicz,R., Gaidies,F., Rubatto,D., Sorcar,N., Faak, K., Mukhopadhyay,D. & Dasgupta, S (2016). A review of thermal history and timescales of tectonometamorphic processes in Sikkim Himalaya (NE India) and implications for rates of metamorphic processes. Journal of Metamorphic Geology, 34,785-803.
- 103. Dasgupta, S., Bose, S., Bhowmik, S.K. & Sengupta, P. (2017). Eastern Ghats Belt, India in the context of supercontinent assembly. Geological Society of London, Special Publications. 457, 87-104.
- 104. Mukhopadhyay, D.K., Chakraborty, S., Trepmann, C., Rubatto, D., Anczkiewicz, R., Gaidies, F., Dasgupta, S & Chowdhury, P (2017). The nature and evolution of the Main Central Thrust: Structural and geochronological constraints from the Sikkim Himalya, NE India. Lithos (Elsevier), 282-283, 447-463. http://dx.doi.org/10.1016/j.lithos.2017.01.015
- 105. Chakraborty, S., Mukhopadhyay, D.K., Chowdhury,P., Rubatto,D., Anczkiewicz,R., Trepmann,C., Gaidies, F., Sorcar,N. & Dasgupta, S (2017). Channel Flow and localized fault bounded slice tectonics (LFBST): Insights from petrological, structural, geochronological and geospeedometric studies in the Sikkim Himalaya, NE India. Lithos (Elsevier), 282-283, 464-482. http://dx.doi.org/10.1016/j.lithos.2017.01.024
- 106. Bhowmik,S.K., Dasgupta, S, Baruah, S & Kalita, D (2018) Thermal History of a Late Mesoproterozoic Paired Metamorphic Belt (?): Constraint from Medium-Pressure granulites from the Aravalli-Delhi Mobile Belt, India. Geoscience Frontiers (Elsevier) http://dx.doi.org/10.1016/j.gsf.2017.07.002, 9, 225-354
- 107. **Bose,S & Dasgupta, S (2018)** Eastern Ghats Belt, Grenvillian-age tectonics and the evolution of the Greater Indian Landmass- A critical perspective. Journal of the Indian Institute of Science (Springer). DOI 10.1007/s41745-018-0068-2, **98, 345-363.**
- 108. Dasgupta, A., Bhowmik,S.K., Dasgupta, S, Avilla,J. & Ireland, T.R. (2019). Mesoarchaean clockwise metamorphic P-T path from the Western Dharwar Craton. Lithos (Elsevier) 342-343, 370-390.
- 109. **Dasgupta, S (In Press).** Petrological evolution of the Eastern Ghats Belt-Current status and future directions. **Episodes**.

BOOK Editing:

- 1. Co-Editor of Geological Society of London Special Publication No. 119 (1997).ISBN 1-897799-74-8
- 2. Co-Editor of Geological Society of London Special Publication No. 206 (2003)ISBN 1-86239-125--4
- 3. Co-Editor of "Physics & Chemistry of the Earth's Interior", published by the Indian National Science Academy & Springer-Verlag (2009)ISBN: 978-1-4419-0344-0 (Print) 978-1-4419-0346-4 (Online)
- 4. Co-Editor of Geological Society of London Special Publication Number 457 on "Crustal Evolution in India and Antarctica: The supercontinent connection", published in 2017.

Editing Special Issues of Journals:

- 1. Co-Editor of a Special Issue of Gondwana Research in 2001.
- 2. Co-Editor of a Special issue of the Journal of Asian Earth Sciences (Elsevier) Vol.22, No. 2, 2003.
- 3. Co-Editor of a Special Issue of Precambrian Research (Elsevier) on Indian Precambrians, Vol. 162, Nos. 1-2, 2008.
- 4. Co-Editor of a Special Issue of Geological Journal (Wiley-Interscience) on Indian Precambrians, 2012

Development of Teaching Tool:

Developed a software "Exploring Thermodynamics using Excel Spreadsheet" (jointly with Sumit Chakraborty), for the program "Teaching Petrology" of the American Geophysical Union.

(http://serc.carleton.edu/NAGTWorkshops/petrology/teaching_examples/3578.ht ml)