

Resume

Name: Dr. SANKAR BOSE

Affiliation: Department of Geology
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Area of specialization: Metamorphic Petrology

Additional research interest Geochemistry and geochronology

Current Position: Professor of Geology and Dean, Faculty of Natural and Mathematical Sciences

Educational qualification:

- Ph.D. in Science from Jadavpur University, Kolkata, India in 2003.
- M.Sc. in Applied Geology from Jadavpur University, Kolkata in 1993 with 1st class (Rank 2, 75% marks).
- B.Sc. with Geological Sciences (Hons.) from Jadavpur University, Kolkata in 1991 with 1st class (Rank 4, 73% marks).
- Higher Secondary Examination (12th standard, WB Board) in 1987 with 1st division (75% marks).
- Secondary Examination (10th standard, WB Board) in 1985 with 1st division (79% marks).

Academic Awards:

- Awarded **National Scholarship** for the result of Secondary and B.Sc. Examination in 1985 and 1991 respectively.
- Awarded **Junior Research Fellowship** by University Grants Commission, Government of India in 1993.
- Awarded **Post-Doctoral Fellowship** from the Japan Society for the Promotion of Science (JSPS) in 2006.
- Awarded **National Geoscience Award 2012** in the field of *Basic Geoscience*.
- Awarded **DST-JSPS Bilateral Research Fellowship** for 2014-2016.
- Awarded **JSPS Bridge Fellowship** for the year 2016.
- Nominated as the *Fellow* of the **West Bengal Academy of Science and Technology (WAST)** in 2019.
- Awarded **INSA Teachers Award** in 2019.
- Awarded **Shiksharatna Samman 2019** from the Government of West Bengal.

Teaching experience:

- Worked as Lecturer in Geology in Durgapur Government College, Durgapur, India during the period July 1998 - January 2003 (UG and PG courses)
- Worked as Lecturer in Geology in Presidency College, Kolkata, India during the January 2003 - December 2003 (UG and PG courses)
- Worked as Senior Lecturer in Geology in Presidency College, Kolkata, India during the period December 2003 - December 2008 (UG and PG courses).
- Worked as Reader in Geology in Presidency College, Kolkata, India during the period December 2008 – July 2010 (UG and PG courses).
- Worked as Reader in Geology in Presidency University, Kolkata, India during the period July 2010-December 2011 (UG and PG courses).
- Worked as Associate Professor of Geology in Presidency University, Kolkata, India during the period December 2011 – December 2104 (UG and PG courses).
- Working as Professor of Geology in Presidency University, Kolkata, India since December 2014 (UG, PG and Ph.D. courses)

Administrative Experience

- Working as Dean, Faculty of Natural and Mathematical Sciences, Presidency University, Kolkata since September 18, 2020.

Doctoral Research

Completed doctoral research with a fellowship from UGC at Jadavpur University, Kolkata under the supervision of Prof. Somnath Dasgupta and Prof. Pulak Sengupta. The title of the thesis is “*Tectonometamorphic imprints on a suite of high Mg-Al granulites and associated rocks from Sunkarametta, Visakhapatnam District, Andhra Pradesh, India*”.

Research Interest

My area of research interest remains the evolution of lower crust from petrological study of high-grade metamorphic rocks. I am working in the Eastern Ghats Belt (EGB) of India for the last twenty seven years to unravel its geological history and how it relates to that of East Antarctica, its Precambrian counterpart.

- Characterization ultrahigh temperature (UHT) metamorphic process in EGB
- Geochronology of EGB
- Pressure-temperature-deformation-fluid history of the EGB
- Geological evolution of craton-margin mobile belts
- Geodynamic modeling of the orogenic belts using petrological, structural and numerical methods.

Post-Doctoral Research Fellowships

- A prestigious Post-Doctoral fellowship was awarded by Japan Society for the Promotion of Science (JSPS) for two years during the tenure May 2007-April 2009. The title of the research scheme is “*Ultrahigh temperature lower crustal process: a case study from the Eastern Ghats Belt, India*” with **Prof. Makoto Arima** (Host Researcher) at the Yokohama National University, Japan.
- A follow-up visit to Yokohama National University from the invitation of **Prof. Makoto Arima** for 14 days in 2013.
- Worked with **Prof. Hiroshi Hiadaka** of Nagoya University and **Dr. Kaushik Das** of Hiroshima University, Japan with **JSPS-Bridge Fellowship** in 2016 for 45 days.

Research project carried out:

National level

- (1) Completed the UGC-sponsored Minor Research Project entitled “*Characterization of the petrogenetic processes in the lower continental crust through the study of mafic and felsic orthogneisses from parts of the Northern Eastern Ghats Belt, India*” during March 2001-August 2003 with a grant of Rs. 45,000/=
- (2) Completed the DST-sponsored Major Research Project entitled “*Characterization of deep crustal processes from high-grade granulites around Chilka Lake area, Eastern Ghats Belt, India*” as PI during October 2006–January 2010 with grant of approx.. Rs. 13 lakhs.
- (3) Completed CSIR-sponsored Major Research Project entitled “*Mobilization of an Archean craton margin during Proterozoic orogenic event(s) and its implication in crustal evolution: a case study from the Eastern Ghats Mobile Belt – Singhbhum Craton boundary zone around Tamka-Rengali, Orissa*” as PI during April 2011 –March 2014 and grant of approx. Rs. 18 lakhs.
- (4) Completed CSIR major research project entitled “*Characterization of fluids during the evolution of granulites of Eastern Ghats Belt, India: estimations from solid assemblages and fluid inclusion study*” as PI during April 2015-March 2018 with grant of approx. Rs. 13 lakhs.
- (5) Completed two year fieldwork project entitled “*Eastern Ghats Belt, India: a type locality of ultrahigh temperature Proterozoic orogenic system*” with a grant of Rs. 4 lakhs from the IGC Secretariat (June 2018-March 2020).
- (6) Completed MoES-sponsored major research project entitled “*Geochronological study across the Singhbhum and Bastar Craton-northern Eastern Ghats Belt transects, India*” as PI with grant of Rs. 28 lakhs (June 2018 – December 2021).

International level

- (1) Completed Indo-Japanese (DST-JSPS) collaborative project entitled “*Archean craton-margin orogenic events and SHRIMP age dating: geodynamic significance of India during Ur and Columbia supercontinents*” as Indian PI (Prof. Hiroshi Hidaka of Hiroshima University Japanese PI) during June 2014-March 2016 with a grant of approx. Rs. 7 lakhs from the Indian side.
- (2) Completed Indo-Japanese (DST-JSPS) collaborative project entitled “*Study of fault architecture, deformation mechanisms and evolution of fault zone rocks with implications for seismicity in the upper and lower crust*” as Indian Co-PI (Prof. Junichi Ando of Hiroshima University Japanese PI) with tenure June 2019-June 2022 with a grant of approx. Rs. 16 lakhs from the Indian side.

Supervision of Ph.D. thesis:

- Sri Arnab Dasgupta has been awarded Ph.D. in Science from Presidency University in 2018. His thesis title is “*Tectono-metamorphic and geochronological evolution of the Rengali Province in the Riamal-Rengali-Khamar Sector, Odisha, India*”
- Sri Proloy Ganguly has been awarded Ph.D. in Science from Presidency University in 2019. His thesis title is “*Tectonothermal history of the granulites and gneisses around Phulbani, Odisha, India and its bearing on the evolution of the Proterozoic Eastern Ghats Belt*”.
- Smt. Sneha Mukherjee has been awarded Ph.D. in Science from Presidency University in 2019. Her thesis title is “*Stratigraphy and Nature of uranium mineralization from Precambrian Basement Granitoid – Srisailam Formation contact around Chitrial area, Cuddapah basin, Telangana*”.

- Sri Arnab Kumar Mondal, Sri Shubhankar Karmakar and Smt. Aparupa Banerjee have registered for Ph.D. at the Presidency University.

Supervision of M.Sc. dissertation:

1. Anupam Mukherjee (University of Burdwan, 1999)
2. Bhaswati Duttagupta (University of Burdwan, 2000)
3. Subrata Chakraborty (University of Burdwan, 2002)
4. Karabi Sarkar (University of Calcutta, 2004)
5. Soumitra Banik (University of Calcutta, 2005)
6. Sayani Sarkar (University of Calcutta, 2007)
7. Debarchan Pawali (Presidency University, 2012)
8. Jasodhara Chaudhury (Presidency University, 2012)
9. Swagata Mukherjee (Presidency University, 2014)
10. Ipsita Mitra (Presidency University, 2014)
11. Pritha Seth (Presidency University, 2015)
12. Moumita Ghosh (Presidency University, 2015)
13. Amitava Saha (Presidency University, 2016)
14. Shreyashi Das (Presidency University, 2017)
15. Arnab Guha (Presidency University, 2017)
16. Nandini Biswas (Presidency University, 2018)
17. Arthana Ghosh (Presidency University, 2018)
18. Rahul Kanti Nag (Presidency University, 2019)
19. Archishman Dasgupta (Presidency University, 2020)
20. Kamrujjaman Mondal (Presidency University, 2020)
21. Soumen Mallick (Presidency University, 2021)
22. Sinjan Roy (Presidency University, 2021)
23. Shubhadeep Roy (Presidency University, 2022)
24. Sayantika Ghosh (Presidency University, 2022)

Mentorship in Summer Internship programme:

1. Arindam Chakrabarti (IIT Roorkee-2011)
2. Kuntal Chaudhuri (IISER Kolkata-2013)
3. Prabhati Sen (Jadavpur University-2013)
4. Somdipta Chatterjee (Jadavpur University -2013)
5. Srijita Chatterjee (Jadavpur University -2013)
6. *Abaan Ahmed Momin (IIT Bombay-2015)
7. Aditi Biswas (Jadavpur University-2016)
8. Ankita Nandi (Calcutta University-2017)
9. *M.S. Parvathy (University of Kerala-2017)
10. *Shafquat Arfa (Patna Science College-2018)
11. *Shanan D'Silva (St. Xavier's College, Mumbai-2020)

**Funded by Indian Academy of Sciences Summer Internship programme*

Organizing scientific meeting

- Organized National Seminar and Workshop “*Crust, ancient life and mineral resources: recent researches and future challenges*” as Joint Convenor at Presidency University, Kolkata during October 24-25, 2017.
- Organized Japan-India Forum International Symposium “*Progress and perspective of the studies on the crustal evolution of the Indian Peninsula from the Archean to*

the present days by geochemical, chronological and geological approaches” as Joint Coordinator from Indian side at Nagoya University, NIPR and Niigata University, Japan during March 7-16, 2019.

- Co-convenor of the session “*Metamorphism to the Extremes: Decoding Orogenic Processes*” in Goldschmidt Conference 2022 at Hawaii, July 10-15, 2022 (session 4b, id: 3190).

Other academic information:

- Acted as reviewer of research articles for *Journal of Petrology*, *Journal of Metamorphic Geology*, *Journal of the Asian Earth Science*, *Gondwana Research*, *Lithos*, *Precambrian Research*, *Episodes*, *Journal of the Geological Society of London*, *Journal of the Earth System Sciences*, *Journal of Geodynamics*, *Journal of Mineralogical and Petrological Sciences*, *Arabian Journal of Geosciences* and *Geochemistry*.
- Invited as *Keynote speaker* for the session 26.2 at the International Geological Congress (IGC) 2020.
- Google scholar (Id: *UO9mftcAAAAJ*) **1412** citations with *h-index 21* and *i-10 index 33*.
- Vidwan-Id 58065 with score **9.3**.
- Selected member of the panel of *Mentors* in the *Summer Internship Programme* by *Indian Academy of Sciences*.
- Member of the Advisory Committee of the Editorial Board of the *Indian Journal of Geosciences*.
- Member of the Sectional Committee, West Bengal Academy of Science and Technology (WAST) (2021 onwards)
- Member of the International Association of Gondwana Research (1999-2004).
- Life member of the Geological Society of India (2012 onwards).
- Member of the Geological Society of Japan (2007-2008).
- Member of Asia Oceania Geoscience Society (AOGS) (2014 onwards)
- Member of Japan Geoscience Union (JpGU) (2013 onwards)
- Member of the Japan Association of Mineralogical Sciences (2008-2009, 2016).
- Life Member, Chairman (2010-2017) and Convener (2022-2025) of the East Chapter of the Indian JSPS Alumni Association.
- Founder member of the Indian Scientists in Japan (2008-2009).
- Member of American Geophysical Union (AGU) in 2008 and 2013.
- External reviewer of the Term Review Meeting, Geological Survey of India, 2015.
- External examiner of Ph.D. thesis of IISc Bengaluru, IIT Kharagpur, Jadavpur University and Hiroshima University (Japan).
- Selection committee chairperson (Geology and Geoinformatics) of the Embassy of Japan in India for the MEXT scholarship since 2022.

Membership of International Research Group

Core member of the “**Hiroshima Institute of Plate Convergence Regions Research (HiPER)**” since 2017 (<http://hiper.hiroshima-u.ac.jp/organization/>).

Complete list of publication:

E-content

Composed the Chapter of “*Quantitative geothermobarometry: P-T evolution paths of metamorphic rocks*” in the course work of Metamorphic Petrology (module M-14) under the program e-PG-Pathasala (UGC). Both e-content and video are available online.

Field guide book

Bose, S. and Nanda, J.K., 2020. Eastern Ghats Belt, India: a type locality of ultrahigh temperature Proterozoic orogenic system. *Field guide book ER012, 36th International Geological Congress (IGC)*, New Delhi, November 9-16, 2020.

Book chapters

1. Dey, B., Das, K., Dasgupta, N., **Bose, S.**, Hidaka, H and Ghatak, H., 2019. Zircon U-Pb (SHRIMP) ages of the Jahazpur granite and Mangalwar gneiss from the Deoli-Jahazpur sector, Rajasthan, NW India: A preliminary reappraisal of stratigraphic correlation and implications to crustal growth. In: Mondal, M.E.A. (ed.) *Geological Evolution of Precambrian Indian Shield. SES Series, Springer*, 39-56.
2. **Bose, S.**, Seth, P and Dasgupta, N., 2017. Meso-Neoproterozoic mid-crustal metamorphic record from the Ajmer –Shrinagar section, Rajasthan, India and its implication to the assembly of the Greater Indian Landmass during the Grenvillian-age orogenesis. In: Pant, N.C. & Dasgupta, S. (eds) *Crustal Evolution of India and Antarctica: The Supercontinent Connection. Geological Society, London, Special Publications*, **457**, 291-318
3. Dasgupta, S., **Bose, S.**, Bhowmik, S.K. and Sengupta, P., 2017. Eastern Ghats Belt, India in the context of supercontinent assembly. In: Pant, N.C. & Dasgupta, S. (eds) *Crustal Evolution of India and Antarctica: The Supercontinent Connection. Geological Society, London, Special Publications*, **457**, 87-104.
4. Chatterjee, A., Das, K., **Bose, S.**, Ganguly, P. and Hidaka, H., 2017. Zircon U-Pb SHRIMP and monazite EPMA CHIME geochronology of granulites of the western boundary, EGB, India: new evidence for Neoproterozoic exhumation history. In: Pant, N. C. & Dasgupta, S. (eds) *Crustal Evolution of India and Antarctica: The Supercontinent Connection. Geological Society, London, Special Publications*, **457**, 105-140.
5. Saha, D., Bhowmik, S.K., **Bose, S.** and Sajeew, K., 2016. Proterozoic tectonics and Trans-Indian mobile belts: a status report. *Special Issue of the Proceedings of the Indian National Science Academy*, **82**, 445-460 (doi: 10.16943/ptinsa/2016/48460).
6. **Bose, S.**, Das, K., Chakraborty, S., Miura, H., 2011. Petrology and geochemistry of metamorphosed basic intrusives from Chilka Lake granulites, Eastern Ghats Belt, India: implications for Rodinia breakup. In: *Dyke swarms: keys for geodynamic interpretation* (Ed: Srivastava, R.K.), p. 241-262, Springer-Verlag, Heidelberg.
7. Pal, S. and **Bose, S.**, 1997. Mineral reactions and geothermo-barometry in a suite of granulite facies rocks from Paderu, Eastern Ghats Granulite Belt: A reappraisal of the P-T trajectories. In: *Eastern Ghats granulites, Special volume for the Proceedings of the Earth and Planetary Science* (Ed. Sen, S.K.), Indian Academy of Sciences, **106**, 77-89.

Peer-reviewed papers

1. Mukherjee, S., Das, P., Ghosh, G., **Bose, S.**, Dev, J.A., Das, K., Tomson, K., 2022. Petrography, geochemistry and detrital zircon geochronology of the Srisailam Quartzite Formation, Cuddapah Basin, India: Implications for depositional age, correlation and provenance. *Precambrian Research* (accepted)
2. Ghosh, G., Ganguly, P., Karmakar, S., **Bose, S.**, Mukopadhyay, J., Ghosh, S., 2022. Development of crustal-scale shear zones at the Singhbhum Craton – Eastern Ghats Belt boundary region: a critical review of the Mesoarchaeon – Neoproterozoic odyssey. *Lithosphere*, doi: 10.2113/2021/9455812.
3. **Bose, S.**, Sorcar, N., Das, K., Ganguly, P., 2022. Pulsed tectonic evolution in long-lived orogenic belts: an example from the Eastern Ghats Belt, India. *Precambrian Research*, **369**, 106522 (doi: 10.1016/j.precamres.2021.106522).
4. Das, K., **Bose, S.**, Torimoto, Hayasaka, Y., Dunkley, D., 2021. Tracking C-O-H fluid-rock interactions in reworked UHT granulite: Tectonic evolution from ca. 990 Ma to ca. 500 Ma in orogenic interior of Eastern Ghats Belt, India. *Lithos*, **398-399**, 106287 (doi: 10.1016/j.lithos.2021.106287).
5. **Bose, S.**, Ghosh, G., Kawaguchi, K., Das, K., Mondal, A.K., Banerjee, A., 2021. Zircon and monazite geochronology from the Rengali-Eastern Ghats Province: implications for the tectonic evolution of the eastern Indian terrane. *Precambrian Research*, **355**, 106080 (doi: 10.1016/j.precamres.2020.106080)
6. Ganguly, P., Ghosh, G., **Bose, S.** Das, K., 2021. Polyphase deformation and ultrahigh temperature metamorphism of the deep continental crust: Implications for tectonic evolution of the northern Eastern Ghats Belt, India. *Journal of Structural Geology*, **143**, 104250 (doi: 10.1016/j.jsg.2020.104250)
7. **Bose, S.**, Mondal, A.K., Bakshi, A.K., Jose, J.R., 2020. Petrogenetic re-examination of spinel + quartz assemblage in the Larsemann Hills, East Antarctica. *Polar Science*, **26**, 100588.
8. **Bose, S.**, Das, K., Torimoto, J., Dunkley, D.J., 2020. Origin of orthopyroxene-bearing felsic gneiss in the perspective of ultrahigh temperature metamorphism: an example from the Chilka Lake migmatite complex, Eastern Ghats Belt, India. *Mineralogical Magazine*, **84**, 712-737.
9. Ghosh, G. and **Bose, S.**, 2020. Deformation and metamorphic history of the Singhbhum Craton vis-à-vis peripheral mobile belts, eastern India: implications on Precambrian crustal processes. *Journal of Mineralogical and Petrological Sciences*, **115**, 70-87.
10. **Bose, S.**, 2020. Geology of the Proterozoic Eastern Ghats Belt: recent developments and outstanding issues. *Special issue of the Proceedings of the Indian National Science Academy: 36th IGC 2020 Geoscience Research in India: The Indian Report to IUGS 2016-2020* (Eds. Banerjee, D.M., Jain, A.K., Dasgupta, S. and Bajpai, S.) **86**, 87-97.
11. Mondal, A.K. and **Bose, S.**, 2019. Lower crustal fluid evolution in the realm of ultrahigh temperature conditions: constraints from silicate-oxide-sulphide assemblages of mafic granulites of the Eastern Ghats Belt, India. *Journal of Earth System Science*, **128**, 190.
12. Mukherjee, S., Ghosh, G., Das, K. and **Bose, S.**, 2018. Geochronological and geochemical signatures of the granitic rocks emplaced at the north-eastern fringe of the East Dharwar Craton, South India: implications for Late Archean crustal growth. *Geological Journal*, **53**, 1781-1801.
13. Ganguly, P., Das, K., **Bose, S.**, Ghosh, G., Hayasaka, Y., Hidaka, H., 2018. U-Pb zircon and U-Th-total Pb monazite ages from the Phulbani Domain of the Eastern

- Ghats Belt, India: Time constraints on high-grade metamorphism and magmatism in the lower crust. *Precambrian Research*, **316**, 1-23.
14. **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*, **98**, 345-363.
 15. Ganguly, P., **Bose, S.**, Das, K., Torimoto, J. and Ghosh, G., 2017. Origin of spinel + quartz assemblage in a Si-undersaturated ultrahigh temperature aluminous granulite and its implication in the P-T-fluid history of the Phulbani domain, Eastern Ghats Belt, India. *Journal of Petrology*, **58**, 1941-1974.
 16. Chatterjee, A., Das, K., **Bose, S.** and Hidaka, H., 2017. Age-integrated tectonic modelling across the orogen-craton boundary: Age zonation and shallow- to deep crustal participation during Late Cambrian cratonization of Eastern Ghats Belts, India. *Lithos*, **290-291**, 269-293
 17. Das, K., **Bose, S.** and Ghosh, G., 2017. The Neoproterozoic basin development and growth of the Singhbhum Craton, eastern India and its global implications: insights from detrital zircon U-Pb data. *Precambrian Research*, **298**, 123-145.
 18. Dasgupta, A., **Bose, S.**, Ghosh, G. and Das, K., 2017. Petrological and geochemical evolution of the Central Gneissic Complex, Rengali Province, eastern India: implication for the Neoproterozoic orogenesis. *Journal of Asian Earth Sciences*, **146**, 1-19.
 19. Yamamoto, T., Ando, J., Tomioka, N., Das, K., Ghosh, G. and **Bose, S.**, 2017. Microstructural observations of fracture-filling goethite vein from crustal fluid along the Kerajang Fault Zone in Rengali Province, Eastern India and its tectonic implication. *Journal of Mineralogical and Petrological Sciences*, **112**, 102-107.
 20. Das, K., Tomioka, N., **Bose, S.**, Ando, J. and Ohnishi, I., 2017. Stability of fluor-wagnerite in UHT granulites and its implications towards understanding orogenic evolution: a case study from Eastern Ghats Belt, India. *Mineralogy and Petrology*, **111**, 417-429.
 21. **Bose, S.**, Das, K., Kimura, K., Hidaka, H., Dasgupta A., Ghosh, G and Mukhopadhyay, J. 2016. Neoproterozoic tectonothermal imprints in the Rengali Province, eastern India and their implication on the growth of Singhbhum Craton: Evidence from zircon U-Pb SHRIMP data. *Journal of Metamorphic Geology*, **34**, 743-764 (doi: 10.1111/jmg.12201).
 22. **Bose, S.**, Das, K., Torimoto, J., Arima, M. and Dunkley, D.J., 2016. Evolution of the Chilka Lake granulite complex, northern Eastern Ghats Belt, India: evidence of ~ 780 Ma decompression of the deep crust and its implication on the India-Antarctica correlation. *Lithos*, **263**, 161-189.
 23. Ghosh, G., **Bose, S.**, Das K., Dasgupta, A., Yamamoto, T., Hayasaka, Y., Chakraborti, K. and Mukhopadhyay, J., 2016. Transpression and juxtaposition of middle crust over upper crust forming a crustal scale flower structure: Insight from structural, fabric, kinematic and geochronologic studies from the Rengali Province, eastern India. *Journal of Structural Geology*, **83**, 156-179.
 24. Crowley, Q., Mukhopadhyay, J., Ghosh, S., Ghosh, G., Chakraborti, K., Misra, B., Heron, K. and **Bose, S.**, 2015. Oxygenation of the Archean atmosphere: New paleosol constraints from eastern India. Forum Reply. *Geology*, doi:10.1130/G36880Y.1.
 25. **Bose, S.**, Guha, S., Ghosh, G., Das, K. and Mukhopadhyay, J., 2015. Tectonic juxtaposition of crust and continental growth during orogenesis: Example from the Rengali Province, eastern India. *Geoscience Frontiers*, **6**, 537-555.

26. Mukhopadhyay, J., Crowley, Q., Ghosh, S., Ghosh, G., Chakrabarti, K., Misra, B., Heron, K. and **Bose, S.**, 2014. Oxygenation of the Archean atmosphere: new paleosol constraints from Eastern India. *Geology*, **42**, 923-926.
27. Mukhopadhyay, J., Crowley, Q., Ghosh, G., Ghosh, S., Chakrabarti, K., Misra, B. and **Bose, S.**, 2013. A Mesoarchean Paleosol from eastern India-the second oldest paleosol on Earth. *Mineralogical Magazine*, **77**, 1802.
28. Sarbajna, C., **Bose, S.**, Rajagopalan, V., Das, K., Som, A., Paul, A.K., Shivkumar, K., Umamaheswar, K. And Chaki, A., 2013. U-Cr-rich high Mg-Al granulites from Karimnagar Granulite Belt, India: implications for Neoproterozoic-Paleoproterozoic events in the Southern India. *Mineralogy and Petrology*, **107**, 553-571.
29. Das, K., Tomioka, N., **Bose, S.** and Ando, J., 2013. On oriented ilmenite needles in garnet porphyroblasts from deep crustal granulites: implications for fluid evolution and cooling history. *Lithos*, **156-159**, 230-240.
30. Dasgupta, S., **Bose, S.** and Das, K., 2013. Tectonic evolution of the Eastern Ghats Belt. *Precambrian Research*, **227**, 247-258.
31. Das, K., **Bose, S.**, Karmakar, S. and Chakraborty, S., 2012. Petrotectonic framework of granulites from northern part of Chilka Lake area, Eastern Ghats Belt, India: Compressional vis-à-vis transpressional tectonics. *Journal of Earth System Sciences*, **121**, 1-17.
32. Karmakar, S., **Bose, S.**, Basu Sarbadhikari, A. and Das, K., 2011. Evolution of granulite enclaves and associated gneisses from Purulia, Chhotanagpur Granite Gneissic Complex, India: Evidence for 990- 940 Ma tectonothermal event(s) at the eastern India cratonic fringe zone. *Journal of Asian Earth Sciences*, **41**, 69-88.
33. **Bose, S.**, Dunkley, D.J., Dasgupta, S., Das, K. and 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. *The Geological Society of America Bulletin*, **123**, 2031-2049.
34. Das, K., **Bose, S.**, Karmakar, S., Dunkley, D.J. and Dasgupta, S., 2011. Multiple tectonometamorphic imprints in the lower crust: first evidence of c. 950 Ma compressional reworking of older UHT metamorphosed aluminous granulites from the Eastern Ghats Belt, India. *Geological Journal*, **46**, 217-239.
35. Ghosh, G., **Bose, S.**, Guha, S., Mukhopadhyay, J. and Aich, S. 2010. Remobilization of the southern margin of the Singhbhum craton, eastern India during the Eastern Ghats orogeny. *Indian Journal of Geology*, **80**, 97-114.
36. **Bose, S.** and Das, K., 2009. Cordierite-K-feldspar-quartz symplectite and its implication on the reworking of isobarically cooled crust: a case study from the Eastern Ghats Belt, India. *Indian Journal of Geology*, **78**, 55-78.
37. **Bose, S.**, Das, K., Ohnishi, I., Torimoto, J., Karmakar, S., Shinoda, K. and Dasgupta, S., 2009. Characterization of oxide assemblages of a suite of granulites from Eastern Ghats Belt, India: implication to the evolution of C-O-H-F fluids during retrogression. *Lithos*, **113**, 483-497.
38. 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. *Journal of the Virtual Explorer*, **32**, doi: 10.3809/jvirtex.2009.00254.
39. **Bose, S.**, Das, K. and Arima, M., 2008. Multiple stages of melt-fluid interaction in the lower crust: new evidences from UHT granulites of Eastern Ghats Belt, India. *Journal of Mineralogical and Petrological Sciences*, **103**, 266-272.

40. **Bose, S.** and Das, K., 2007. Sapphirine + quartz assemblage in contrasting textural modes from the Eastern Ghats Belt, India: implications for stability relations in UHT metamorphism and retrograde processes. *Gondwana Research*, **11**, 492-503.
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