

## CV of Dr. Sankar Bose

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**Area of specialization:** Metamorphic Petrology and Mineralogy

**Current Position:** Professor of Geology

### 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.

### Research project carried out: 5

- (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 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.
- (5) 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.

### Supervision of Ph.D. thesis:

Presently supervising three students Arnab Dasgupta (thesis submitted), Sneha Mukherjee and Proloy Ganguly at the Department of Geology, Presidency University. All the students have registered for Ph.D. at Presidency University under my supervision.

### 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/>).

### List of publication (last 5 years)

1. **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*, doi: 10.1007/s41745-018-0068-2.
2. 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.
3. 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
4. Mukherjee, S., Ghosh, G., Das, K. and **Bose, S.**, 2017. 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*, [https://doi: 10.1002/gj.3007](https://doi.org/10.1002/gj.3007).
5. 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.
6. 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.
7. Yamamoto, T., Andos, 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.
8. Dey, B., Das, K., Dasgupta, N., **Bose, S.**, Hidaka, H and Ghatak, H., 2017. 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., Raza, S. (eds.) Geological Evolution of Precambrian Indian Shield. SES Series, Springer (in press).
9. **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

10. 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.
11. 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.
12. 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.
13. Saha, D., Bhowmik, S.K., **Bose, S.** and Sajeev, 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).
14. **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).
15. **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. (<http://dx.doi.org/10.1016/j.lithos.2016.01.017>).
16. 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.
17. 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.
18. **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.
19. Mukhopadhyay, J., Crowley, Q., Ghosh, S., Ghosh, G., Chakraborti, K., Misra, B., Heron, K. and **Bose, S.**, 2014. Oxygenation of the Archean atmosphere: new paleosol constraints from Eastern India. *Geology*, **42**, 923-926.
20. Mukhopadhyay, J., Crowley, Q., Ghosh, G., Ghosh, S., Chakraborti, K., Misra, B. and **Bose, S.**, 2013. A Mesoarchean Paleosol from eastern India-the second oldest paleosol on Earth. *Mineralogical Magazine*, **77**, 1802.
21. 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 events in the Southern India. *Mineralogy and Petrology*, **107**, 553-571.

22. 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.
23. Dasgupta, S., **Bose, S.** and Das, K., 2013. Tectonic evolution of the Eastern Ghats Belt. *Precambrian Research*, **227**, 247-258.