BIO – DATA

- Name: Rajib Kar.
- Father's Name: Tarapriya Kar.
- Date of Birth: 27.03.1970.
- Marital Status: Married.
- Name of the Spouse: Asima Kar.
- Address of Communication: Rajib Kar, Department of Geology, University of Calcutta, 35, Ballygunge Circular Road, Kolkata – 700 019, India.
- E-mail address: rajib_kar@hotmail.com, rajib_kar@yahoo.com
- Telephone no: 0091 9474509798 (Mobile)
- Designation: Associate Professor in Geology.
- Educational Qualification:

Examination Passed	Year of Passing	Board/University	Remarks
Madhyamik Pariskha	1985	West Bengal Board of Secondary Education	National Scholarship
Higher Secondary Examination	1987	West Bengal Council of H.S. Education	National Scholarship
B. Sc (Hons.) Examination in Geology	1990	University of Calcutta	University 4th rank holder
M. Sc. Examination in Geology	1992	University of Calcutta	2nd rank holder in the College
Ph D (Science) in Geology	2001	University of Calcutta	Specialization in Metamorphic Petrology

Topic of Research:

- **Soda granite and Uraneium metallogeny in Singhbhum Shear Zone,** ongoing BRNS Project as co-investigator.
- **Crustal Evolution of Simlipal Complex**, Iron ore craton of Singhbhum: Ongoing UGC-UPE program.
- **Charnockite petrogenesis and its structural setting:** Charnockitic rocks occur in two different modes in the Eastern Ghats belt, namely, patchy charnockite within granitic host rocks and massif-type bodies. The petrogentic significance of both the varieties has been investigated from the area around Jenapore, orissa, and published. Notably, the origin of massif-type bodies was the emphasis of Ph. D. thesis.
- **Polymetamorphic history of the Eastern Ghats granulites:** interpretation of petrological and isotopic data from a single granulite complex indicates the evidence of polymetamorphism in Achaean crustal domain. A major portion of the work is a part of Ph D thesis.
- **Geochronological work on granulite facies rocks of the Eastern Ghats belt:** interpretation of isotopic data in terms of field relations, petrological-textural evidence and geochemistry. Establishment of Achaean granulite facies event and Achaean crustal domain in the Eastern Ghats belt.
- **Craton-mobile belt relationship:** Emphasizing the relationship between the Eastern Ghats belt and the Bastar craton to the west and Iron-ore craton of Singhbhum-Orissa to the north, and published. Moreover, detailed study on the syn-collisional magmatism in the northern boundary region is carried out and published.
- **Establishment of complete clockwise P-T-t cycle from single granulite complex:** Interpretation of the structural, petroogical and isotopic data obtained from Paderu high Mg-Al granulite and associated granite complex.
- **Significance of late alkaline complexes in the Eastern ghats belt:** Structural setting and petrogenesis of the Koraput alkaline complexes are studied and published.

- **Melting experiment on olivine normative basic rocks:** Have an expeeriance of doing piston-cylinder experiment in the High-Pressure Laboratory of the Institute of Mineralogy and Petrology, ETH, Switzerland and partly published.

List of Publications:

1. Kar, R., Bhattacharya, S., Basei, M. and Chaudhary, A.K. 2020. Petrological and Geochronological Constraints on the Evolution of Charnockitic Rocks in the Massifs of Cauvery Shear Zone, Southern Granulite Terrain, India. *Journal of the Geological Society of India.*
2. Bhattacharya S, Basei M and Kar R. 2019. New insights on the Chronological relation between the Supracrustals and the magmatic rocks (Charnockite massifs) in the Eastern Ghats Granulite Belt, India and the question of basement to the supracrustals. *International Journal of Innovative Science, Engineering and Technology*, 6 (9), 185-203.
3. Kar R. **2017.** On the khondalites of Eastern Ghats granulite belt, India. *Indian Journal of Geology,* 87, 5-18.
4. Saha D, Mazumder R and Kar R. **2017.** Telescoped segment of upper oceanic crust and shallow marine to deep water sediment from the Palaeoproterozoic Kandra Ophiolite complex, southern India. *Gondwana Research*. 49, 21-41.
5. Bhattacharya S, Chaudhury A, Basei M and Kar R **2016.** Kabbaldurga carnockite revisited: Petrological constraints provide unequivocal evidence of crustal anatexis as the mode of origin of patchy/vein chrnockites. *International Journal of Advancement in Earth and Environmental Sciences*, 4, 1, 1-13.
6. Saha D, Sain A, Nandi P, Mazumder R and Kar R. **2015**. Tectonographic evolution of the Nellore Schist Belt, southern India, since the Neoarchaean. *Precambrian basins of India: Stratigraphic and Tectonic Context, Geological Society London Memoir*, 43, 269-282.
7. Bhattacharya S, Basei M and Kar R. **2014**. Charnockite massifs: key to tectonic evolution of Eastern Ghats Belt, India, and its Columbia connection. *Advances in Natural science*. 7, 4, 1-11 Bhattacharya S, Kar R, Teixeira W and Basei M. **2014.** An

exotic terrane at the western margin of the Eastern Ghats Belt, India. *International Journal of Advancement in Earth and Environmental Sciences*, 2, 2, 22-30.

8. Bhattacharya S, Basei M and Kar R. **2013**. Early mesoproterozoic thermal event in the Eastern Ghats Province, India: U-Pb isotopic evidence from supracrustal rocks. *International Journal of Advancement in Earth and Environmental Sciences*, 1, 2, 43-59.

9. Kar R. **2012**. Generation of granitic plutons during crustal orogenesis: an example from the Eastern Ghats Granulite Belt, India. *Journal of the Geological Society of India*, 80, 653-666.

10. Bhattacharya S, Kar R, Saw A K and Das P. **2011**. Relative chronology of high-grade crystalline terrain of the Eastern Ghats, India: new insights. *International Journal of Geosciences*, 2¸ 398-405.

11. Kar R. and Bhattacharya S. **2010**. New experimental constraints: implications for petrogenesis of charnockite of dioritic composition. *Natural Science*, 2, 1085-1089.

12. Kar R. **2010.** Melting experiments in the NCFMASH system at 8 kbar: implication to the origin of mafic granulites. *Indian Journal of Geology*, 80, 71-80.

13. Kar R. **2008.** Superposed folding, transposed fabric growth in granulite facies condition: implications for possible hiatus in a granulite complex of the Eastern Ghats belt, India. *Journal of the Geological Society of India*, 71, 569-581.

14. Kar R. **2007.** Domainal fabric development, associated microstructures and P-T records attesting to polymetamorphism in a granulite complex of the Eastern Ghats Granulite belt, India. *Journal of Earth System Science*, 117, 21-37.

15. Bhattacharya S. and Kar R. **2005.** Petrological and Geochemical constraints on the evolution of the alkaline complex of Koraput in the Eastern Ghats granulite belt, India. *Gondwana Research*, 8(4), 596-602.

16. Bhattacharya S. and Kar R. **2004.** Alkaline intrusion in a granulite ensemble in the Eastern Ghats belt, India: Shear zone pathway and a pull-apart structure. *Proceedings of the Indian Academy of Science (Earth and Planetary Sciences)*, 113, 37-48.

17. Bhattacharya S., Kar R. and Moitra S. **2004.** Petrogenesis of granitoid rocks at the northern margin of the Eastern Ghats Mobile Belt and evidence of syn-collisional magmatism. *Proceedings of the Indian Academy of Science (Earth and Planetary Sciences)*, 113 (4), 543-563.

18. Bhattacharya S., Kar R., Teixeira W. and Basei M. **2003.** High- Temperature crustal anatexis in a clockwise P-T-t path: isotopic evidence from a granulite-granitoid suite in the Eastern Ghats belt, India. *Journal of the Geological Society of London*, 160, 39-46.

19. Kar R. and Bhattacharya S. **2003.** Imprints of early deformation structures in the Mg-Al sapphirine granulites, Eastern Ghats granulite belt, India. *Journal of the Geological Society of India***,** 61, 711-716.

20. Kar R., Bhattacharya S. and Sheraton J. W. **2003.** Hornblende dehydration melting in mafic rocks and the link between massif-type charnockite and associated granulites: Eastern Ghats granulite belt, India. *Contributions to Mineralogy and Petrology*, 145, 707-729.

21. Bhattacharya S. and Kar R. **2002.** High-Temperature dehydration melting and decompressive P-T path in a granulite complex from the Eastern Ghats, India. *Contributions to Mineralogy and Petrology*, 143, 175-191.

22. Bhattacharya S., Kar R., Mishra S. and Teixeira W. **2001.** Early Archaean Continental crust in the Eastern Ghats granulite belt, India: Isotopic evidence from a charnockite suite. *Geological Magazine,* 138, 609-618.

23. Kar. R **2001.** Patchy charncokites from Jenapore, Eastern Ghats granulite belt, India: structural and petrochemical evidences suggesting to their relict nature. *Proceedings of the Indian Academy of Sciences (Earth and Planetary Sciences)*, 110, 337-350.

24. Kar R., Bhattacharya S. and Swain A. K. **2001.** Nature of Craton-mobile belt boundary: an example from Bastar craton- Eastern Ghats mobile belt contact around Jeypore, Orissa, India. *Indian Journal of Geology*, 73 (2), 107-118.

25. Bhattacharya S. and Kar R. **1998.** Structural constraints on reworking in the Western Ghats granulite belt, India and the Antarctic analogue. *Gondwana Research*, 1(2), 285-290.

26. Kar R. and Sarkar S. S. **1996.** Regional variation of Structural Geometry in three dimension at Rakha mines, Singhbhum Shear zone: a statistical approach. *Indian Journal of Earth science*, 23 (1, 2), 56-60.

Post-doctoral Research work:

Place of work: Institute of Mineralogy and Petrology (**IMP**)

Swiss Federal Institute of Technology (**ETH**)

- Place of Work: Institute of Mineralogy and Petrography (**IMP**), Swiss Federal Institute of Technology (**ETH**), ETH Zentrum, Sonneggestrasse 5, CH – 8092, Zurich, Switzerland.
- Designation: Visiting Academic and Research Associate.
- Phone: 0041 1 6327819 (office).
- Field of specialization: Experimental Petrology.
- Working Group: High Pressure Group.
- Funding agency: Federal Commission for Scholarship for foreign students, Switzerland, Hallwylstrasse 4, CH – 3003, Bern, Switzerland.
- Title of the Project: High pressure melting experiment on synthetic (gel) basic rocks.
- Date line of completion of the Project: 15.07.2005.

Relevant information:

- Seminar / Course attended:
  - Attended 31st **International Geological Congress at Rio de Janeiro, Brazil,** in September, 2000; presented a seminar talk in front of international audience on the aspect of polymetamorphism in the Eastern Ghats.
  - Attended national seminar, **Milestone to Petrology**, held in Benaras Hindu University, Varanasi, November, 2000; presented a seminar talk in front of national audience on the aspect of origin of granite plutons in granulite belt.
  - Attended a geological mapping course in **Himalayan Collision Zone**, in and around Dehradoon, Uttarkashi and Gangotri from 15.09.2002 to

07.10.2002 under the **SERC School, sponsored by DST, Govt. of India, organized by GSITI, Lucknow and IIT, Roorkee.**

- Member of Bodies/Organization:
  - Member of International Association of Gondwana Research
  - Life-member of Geological Society of India
  - Life-member of Geological, Mining and Metallurgical Society of India
  - Life-member of the Indian Society of Earth Science.
- Foreign Exposure:
  - Visit to Moscow – to attend International symposium and related field work in Russian Academy of Sciences.
  - Visit to Rio de Janeiro – to attend 31st International Geological Congress.
  - Visit to Switzerland for Postdoctoral Research in the IMP, ETH, Zurich.
- Research Project investigated:
  - Ongoing Research Project on **"Characterization of Soda granite and related Urenium metallogeny around Chamaru-Nengtarai, Saraikela-Kharswan district,Jharkhand**" . BRNS as ccoinvestigator, 2018-2021.
  - Ongoing Research Project on "**Evolution of Simlipal volcanoedimentray succession of the Eastern Indian Shield" as PI from 2018-2020.**
  - **DST major research project on Geochemistry of khondalite as PI from 2009-2012**
  - **Co-investigator of the research project entitled "Tectonic setting of alkaline intrusive: a case study for two such complexes around Rairakhol and Koraput in the Orissa sector of the Eastern Ghats granulite belt". Funded by CSIR, Govt. of India. 2001 to 2004.**