Dr. Tathagata Roy Choudhury
Institute Post Doctorate Fellow, Dept. of Earth Sciences,
Indian Institute of Technology Bombay, Mumbai, Maharashtra-400076, India
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Research Experience

1. **PhD topic**: "Origin of Paleogene glauconite in relation to warming events"
   Supervisor: Prof. Santanu Banerjee
   Affiliation: Department of Earth Sciences, Indian Institute of Technology Bombay (July, 2016-Feb, 2022)
2. **MSc dissertation**: "Study of the Sub-Himalayan Lower Cenozoic Subathu Formation with special reference to reconstruction of the depositional model"
   Supervisor: Prof. Gautam Ghosh
   Affiliation: Department of Geology, Presidency University, Kolkata (2013-2015)

Education:

a. **Ph.D.** in the Department of Earth Sciences, Indian Institute of Technology Bombay (July, 2016-Jan, 2022) [CPI: 9.65/10]
b. **M.Sc** in the Department of Geology, Presidency University, Kolkata (2013-2015) [CPI: 8.84/10]
c. **BSc (Hons.)** in the Department of Geology, Calcutta University, Kolkata (2011-2014) [67.38%]

Academic Achievements:

a. Received the **INSPIRE-DST Scholarship** (Department of Science and Technology) funded by Ministry of Human Resource and Development, Govt. of India
b. Qualified as **CSIR-JRF** (Council of Scientific and Industrial Research-Junior Research Fellowship) in the **CSIR-NET** (Council of Scientific and Industrial Research–National Eligibility Test) examination [December, 2015]
c. Upgraded to **CSIR-SRF** (Council of Scientific and Industrial Research-Senior Research Fellowship) [July, 2018].
d. Secured All India Rank **178th** in Graduate Aptitude Test in Engineering (**GATE**), 2015.

Technical Expertise:

a. **Instrumentation:** Optical Microscope, Scanning Electron Microscope (SEM/FEG-SEM), X-Ray Diffraction, Electron Probe Micro Analyzer, ICP-MS
b. **Software:** PANalytical HighScore Plus, ImageJ, Drishti, Coreldraw, Origin, MS-Excel

Publications in peer-reviewed scientific journals

1. **Roy Choudhury, T.**, Khanolkar, S., Banerjee S., **2022**. Glauconite authigenesis during the warm climatic events of Paleogene: Case studies from shallow marine sections of Western India. *Global and Planetary Changes*, p.103857. https://doi.org/10.1016/j.gloplacha.2022.103857. (**IF: 5.114**)
2. **Roy Choudhury, T.,** Banerjee, S., Khanolkar, S., Saraswati, P.K., Meena, S. S., **2021**. Glauconite authigenesis during the onset of the Paleocene-Eocene Thermal Maximum: A case study from the Khuiala Formation in Jaisalmer Basin, India. *Palaeogeography Palaeoclimatology Palaeoecology*, 571, 110388, https://doi.org/10.1016/j.palaeo.2021.110388. (**IF: 3.318**)
3. **Roy Choudhury, T.**; Banerjee, S.; Khanolkar, S.; Meena, S.S., **2022**. Paleoenvironmental Conditions during the Paleocene–Eocene Transition Imprinted within the Glauconitic Giral Member of the Barmer Basin, India. *Minerals, 12*, 56. https://doi.org/10.3390/min12010056. (**IF: 2.644**)
4. **Roy Choudhury, T.**, Raju, P.V., Shaikh, T. and Banerjee, S., 2022. An Assessment of Alternate Fertilizer Potential of Glauconite Deposits in India using Simple Beneficiation Methods. *Journal of the Geological Society of India*, *98*(2), pp.181-184. https://doi.org/10.1007/s12594-022-1956-7 (**IF: 1.459)**
5. Banerjee, S., **Roy Choudhury, T.**, Saraswati, P.K., Khanolkar, S., 2020. The formation of authigenic deposits during Palaeogene warm climatic intervals: A review. *Journal of Palaeogeography* 9, 27, https://doi.org/10.1186/s42501-020-00076-8. (**IF: 2.519**)
6. Mandal, S., **Roy Choudhury, T.**, Das, A., Sarkar, S. and Banerjee, S., 2022. Shallow marine glauconitization

during the Proterozoic in response to intrabasinal tectonics: A study from the Proterozoic Lower Bhander Sandstone, Central India. *Precambrian Research*, *372*, p.106596. https://doi.org/10.1016/j.precamres.2022.106596 (**IF: 4.725**)

7. Khanolkar, S., **Roy Choudhury, T.**, Saraswati, P.K. and Banerjee, S., 2021. Late Paleocene-Early Eocene Foraminiferal Assemblage and Carbon Isotope Excursion Indicating Hyperthermal Events in Paleotropical Succession of Northwestern India. *Journal of Foraminiferal Research* 51, 4-13. https://doi.org/10.2113/gsjfr.51.1.4 (**IF: 1.222**)
8. Tounekti, A., Boukhalfa, K., **Roy Choudhury, T.**, Soussi, M., Banerjee, S., 2021. Global and local factors behind the authigenesis of Fe-silicates (Glauconite/Chamosite) in Miocene strata of Northern Tunisia. *Journal of African Earth Sciences* 184, 104342. https://doi.org/10.1016/j.jafrearsci.2021.104342 (**IF: 2.046**)
9. Jafarzadeh, M., **Roy Choudhury, T.**, Taheri, A., Banerjee, S., Jafarian, A., 2020. Glauconite within Albian-Cenomanian Aitamir Formation, Kopet-Dagh Basin, northeastern Iran: Origin and implications for Cretaceous seawater. *Arabian Journal of Geosciences* 13, 1-14. https://doi.org/10.1007/s12517-020-05920-8 (**IF: 1.827**)
10. Banerjee, S., Farouk, S., Nagm, E., **Roy Choudhury, T.**, Meena, S.S., 2019. High Mg-glauconite in Campanian Duwi Formation of Abu Tartur Plateau, Egypt and its implications. *Journal of African Earth Sciences* 156, 12-25. https://doi.org/10.1016/j.jafrearsci.2019.05.001 (**IF: 2.046**)
11. Mandal, S., Banerjee, S., Sarkar, S., Mondal, I., **Roy Choudhury, T.**, 2020. Origin and sequence stratigraphic implications of high- alumina glauconite within the Lower Quartzite, Vindhyan Supergroup. *Marine and Petroleum Geology* 112, 104040. https://doi.org/10.1016/j.marpetgeo.2019.104040 (**IF: 4.348**)

Book Chapters:

1. Banerjee, S., Chakrabarty, S., **Roy Choudhury, T.**, 2020. The application of glauconite for high-resolution stratigraphic interpretations of Eocene succession in India. In: Meghraoui, M., Sundararajan, N., Banerjee, S., Hinzen, K., Eshagh, M., Roure, F., Chaminé, H.I., Maouche, S., Michard, A., Al-amri, A. (Eds.), Advances in Geophysics, Tectonics and Petroleum Geosciences, pp. 369-372, https://doi.org/10.1007/978-3-030-73026-0_84
2. **Roy Choudhury, T.**, Banerjee, S., Khanolkar, S. The geochemical affinity of Paleogene glauconites in paleo-Tethyan deposits of India. In: Armstrong-Altrin, A., Pandarinath, K., Verma, S.K. (eds.), Geochemical Treasures and Petrogenetic Processes. Springer. (manuscript submitted, book is under preparation).

Abstracts published in Conferences:

1. Banerjee, S., **Roy Choudhury, T.**, Khanolkar, S., Saraswati, P.K., 2019. The origin of Palaeogene glauconites in the palaeo-Tethyan margins in the background of warming events. IAS Meeting of Sedimentology, Rome, September 10-13, Session 6A-405.
2. Banerjee, S., **Roy Choudhury, T.**, Khanolkar, S., Saraswati, P.K., 2019. An investigation of Palaeogene glauconites in Cenozoic of Kutch in the background of warming events. 4th International Palaeogeography Conference, Beijing, September 20-22,
3. Banerjee, S., **Roy Choudhury, T.**, Khanolkar, S., Saraswati, P.K., 2019. Unusual seawater composition in the Palaeogene Tethys imprinted in glauconites of Kutch. Second National Conference and Field Workshop on "Recent Studies on the Geology of Kachchh Basin", p.14.
4. Banerjee, S., **Roy Choudhury, T.**, Khanolkar, S., Saraswati, P.K., 2019. Formation of Palaeogene glauconites in Kutch in the background of warming events. IAS Meeting, Doctor Harsingh Gaur Vishwavidyalaya, Sagar, January 28-30.

Reviewing experience:

Actively reviewed articles for Journal of Earth System Science and Arabian Journal of Geosciences

Academic Memberships:

a. Student Member of SEPM
b. Student Member of IAS