

## **PEER-REVIEWED PUBLICATIONS**

1. Singh, U., Suresh, K., Prabhat, P., Rahaman, W. & Kumar, A. Geochemical tracing of synoptic scale modern dust transport over the Northeast Arabian Sea during the southwest monsoon. *Science of The Total Environment*, 164438 (2023).
2. Rahaman, W. & Singh, S. K. Behaviour of barium in the tropical estuaries: Implications to its marine budgets and paleo-oceanographic applications. *Marine Chemistry* 254, 104278 (2023).
3. Rahaman, W. et al. Eolian versus fluvial supply to the northern Arabian Sea during the Holocene based on Nd isotope and geochemical records. *Geoscience Frontiers* 14, 101618 (2023).
4. Kumar, D. et al. U-Pb Neoproterozoic age and petrogenesis of a calc-alkaline shoshonitic lamprophyre from Simdega area, Chhotanagpur Gneissic Complex (Eastern India): Implication for the evolution of the Central Indian Tectonic Zone and Rodinia tectonics. *Chemical Geology* 631, 121512 (2023).
5. Amir, M., Paul, D., Anchana, P., Tarique, M. & Rahaman, W. Geochemical evidence for west-flowing paleo-Yamuna River in northwest India during the late Quaternary and its implication for the Harappan Civilization. *Geochemistry*, 126021 (2023).
6. Tiwari, R. K. et al. Geochemistry of uranium in the Ganga (Hooghly) River estuary, India: The role of processes in the water column and below the sediment-water interface. *Marine Chemistry* 247, 104173 (2022).
7. Tarique, M. & Rahaman, W. Recent ocean acidification trends from boron isotope ( $\delta^{11}\text{B}$ ) records of coral: Role of oceanographic processes and anthropogenic CO<sub>2</sub> forcing. *Journal of Earth System Science* 131, 165 (2022).
8. Ramiz, M. M., Ahmad, I., Mondal, M. & Rahaman, W. *Geosystems and Geoenvironment*. (2022).
9. Ramiz, M. M., Ahmad, I., Mondal, M. & Rahaman, W. Multistage Neoproterozoic magma genesis in the Bundelkhand Craton, India: evidence from whole-rock elemental and Nd isotopic study of mafic magmatic enclaves and granitoids. *Geosystems and Geoenvironment* 1, 100085 (2022).

10. Rahaman, W., Tarique, M., Fousiya, A., Prabhat, P. & Achyuthan, H. Tracing impact of El Niño Southern Oscillation on coastal hydrology using coral  $87\text{Sr}/86\text{Sr}$  record from Lakshadweep, South-Eastern Arabian Sea. *Science of The Total Environment* 843, 157035 (2022).
11. Prabhat, P. et al. Modern-like deep water circulation in Indian Ocean caused by Central American Seaway closure. *Nature Communications* 13, 7561 (2022).
12. Pandey, A., Rao, N. C., Rahaman, W., Seth, V. & Sahoo, S. Paleoproterozoic metaluminous syenites synchronous with the c. 2.21 Ga mafic dyke swarms from the Eastern Dharwar Craton, India: implications for alkaline magmatism associated with the breakup of supercraton Superia. (2022).
13. Kumar, D., Rao, N. C., Prabhat, P., Chatterjee, A. & Rahaman, W. Petrochemistry and Sr-Nd isotopes of post-collisional Neoproterozoic (ca. 950 Ma) amphibolite dykes of continental flood basalt affinity from the Simdega area: Implications for the geodynamic evolution of the Chhotanagpur Gneissic Complex, Eastern India. *Lithos* 428, 106810 (2022).
14. Hamidullah, I. S., Mondal, M. E. A., Ahmad, I., Rahaman, W. & Dash, J. K. Geochemistry and Sr-Nd isotopic studies of Precambrian gneisses from central Aravalli Craton, NW India: Implications for crustal evolution and reworking. *Journal of Asian Earth Sciences: X* 8, 100125 (2022).
15. Hamidullah, I. S., Mondal, M. E. A., Ahmad, I., Dash, J. K. & Rahaman, W. Rift-related multistage evolution of the Mangalwar Complex, Aravalli Craton (NW India): Evidence from elemental and Sr–Nd isotopic features of Proterozoic amphibolites. *Geological Journal* 57, 3199-3229 (2022).
16. EJAZ, T., Rahaman, W., Laluraj, C., Mahalinganathan, K. & Thamban, M. Rapid warming over East Antarctica since 1940s caused by increasing influence of ENSO and SAM. *Frontiers in Earth Science*, 1186 (2022).
17. V. Balarama, W. R., P. Roy. Recent advances in MC-ICP-MS applications in Earth and environmental sciences: Challenges and solutions. *Geosystems and Geoenvironment* (2021).
18. Tarique, M. et al. Surface pH record (1990–2013) of the Arabian Sea from boron isotopes of Lakshadweep corals—trend, variability, and control. *Journal of Geophysical Research: Biogeosciences* 126, e2020JG006122 (2021).
19. Satyabrata Das, S. K. R., Waliur Rahaman, Saurabh Singhal, Shushanta Sarangi. Chemical weathering and Sr flux from the silicate lithology dominated fluvial system: Insights from major ions, dissolved Sr and  $87\text{Sr}/86\text{Sr}$  of the Teesta headwaters, Sikkim Himalaya. *Applied Geochemistry* (2021).

20. Samal, A. K., Srivastava, R. K. & Rahaman, W. Sr-Nd isotope geochemistry and petrogenesis of ca. 2.26–2.25 Ga and ca. 2.08 Ga mafic dyke swarms from the Dharwar craton, India: Insights into their mantle sources and geodynamic implications. *Lithos* 406, 106503 (2021).
21. Rohit Kumar Giria, N. V. C. R., Waliur Rahaman, Alok Kumar, M.Satyanarayanan, A.Keshav Krishna. Paleoproterozoic calc-alkaline lamprophyres from the Sidhi Gneissic complex, India: Implications for plate tectonic evolution of the Central Indian Tectonic Zone. *Precambrian Research* 362, 106316 (2021).
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23. Gohl, K. et al. Expedition 379 methods. Volume 379: Amundsen Sea West Antarctic Ice Sheet History (2021).
24. Gohl, K. et al. Expedition 379 summary. *Proceedings of the International Ocean Discovery Program* (2021).
25. Gohl, K., Wellner, J. & Klaus, A. Amundsen Sea West Antarctic Ice Sheet History. *Proceedings of the International Ocean Discovery Program 379* (2021).
26. Gohl, K. et al. Evidence for a highly dynamic West Antarctic ice sheet during the Pliocene. *Geophysical Research Letters* 48, e2021GL093103 (2021).
27. Ejaz, T., Rahaman, W., Laluraj, C.M., Mahalinganathan, K., Thamban, M. Sea Ice Variability and Trends in the Western Indian Ocean Sector of Antarctica During the Past Two Centuries and Its Response to Climatic Modes. *Journal of Geophysical Research: Atmospheres* 126 (2021).
28. TRIPATHY, G. R., Nuruzzama, M., Patil, S., Rahaman, W. & Mohan, R. Dissolved major ions, Sr and <sup>87</sup>Sr/<sup>86</sup>Sr of coastal lakes from Larsemann hills, East Antarctica: Solute sources and chemical weathering in a polar environment. (2020).
29. TRIPATHY, G. R., DANISH, M. & Rahaman, W. Submarine groundwater discharge to a tropical coastal lagoon (Chilika lagoon, India): An estimation using Sr isotopes. (2020).
30. Thamban, M., Rahaman, W. & Laluraj, C. Millennial to quasi-decadal variability in Antarctic climate system as evidenced from high-resolution ice core records. *Current Science* 119, 255-264 (2020).
31. Rahaman, W. et al. Reduced Arctic sea ice extent during the mid-Pliocene Warm Period concurrent with increased Atlantic-climate regime. *Earth and Planetary Science Letters* 550, 116535 (2020).

32. Mohammad Nuruzzama, W. R., Rahul Mohan. Sources, distribution and biogeochemical cycling of dissolved trace elements in the coastal lakes of Larsemann Hills, East Antarctica. *Science of The Total Environment* (2020).
33. Laluraj, C., Rahaman, W., Thamban, M. & Srivastava, R. Enhanced dust influx to South Atlantic sector of Antarctica during the late-20th Century: Causes and contribution to radiative forcing. *Journal of Geophysical Research: Atmospheres* (2020).
34. Kumar, A., Suresh, K. & Rahaman, W. Geochemical characterization of modern aeolian dust over the Northeastern Arabian Sea: Implication for dust transport in the Arabian Sea. *Science of The Total Environment* 729, 138576 (2020).
35. Danish, M., Tripathy, G. R. & Rahaman, W. Submarine groundwater discharge to a tropical coastal lagoon (Chilika lagoon, India): An estimation using Sr isotopes. *Marine Chemistry* 224, 103816 (2020).
36. Turner, J. et al. The dominant role of extreme precipitation events in Antarctic snowfall variability. *Geophysical Research Letters* 46, 3502-3511 (2019).
37. Subha Anand, S. et al. Trace elements and Sr, Nd isotope compositions of surface sediments in the Indian Ocean: An evaluation of sources and processes for sediment transport and dispersal. *Geochemistry, Geophysics, Geosystems* 20, 3090-3112 (2019).
38. Rahaman, W., Chatterjee, S., Ejaz, T. & Thamban, M. Increased influence of ENSO on Antarctic temperature since the Industrial Era. *Scientific Reports* 9, 6006 (2019).
39. Ajit T. Singh, W. R., Parmanand Sharma, C. M. Laluraj, Lavkush K. Patel, Bhanu Pratap, Vinay Kumar Gaddam & Thamban, M. Moisture Sources for Precipitation and Hydrograph Components of the Sutri Dhaka Glacier Basin, Western Himalayas. *Water* 11, doi:10.3390/w11112242 (2019).
40. Abhinay Sharma, R. K. G., N. V. Chalapathi Rao, Waliur Rahaman, Dinesh Pandit, Samarendra. Arc-Related Pyroxenites Derived from a Long-Lived Neoproterozoic Subduction System at the Southwestern Margin of the Cuddapah Basin: Geodynamic Implications for the Evolution of the Eastern Dharwar Craton, Southern India. *The Journal of Geology* 127, 000 (2019).
41. Rahaman, W., Wittmann, H. & von Blanckenburg, F. Denudation rates and the degree of chemical weathering in the Ganga River basin from ratios of meteoric cosmogenic  $^{10}\text{Be}$  to stable  $^9\text{Be}$ . *Earth and Planetary Science Letters* 469, 156-169 (2017).
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