Curriculum Vitae

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Supriya Chakraborty, Scientist-F Center for Climate Change Research Indian Institute of Tropical Meteorology Dr. Homi Bhabha Road, Pashan Pune 411008, India

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Educational Qualifications

B.Sc. in Geological Sciences, IIT Kharagpur (1984)

M.Sc. in Exploration Geophysics, IIT Kharagpur (1986)

Ph.D. in Geology, Physical Res. Lab., Ahmedabad and M.S. University of Baroda (completed 1993)

Personal Information

Date of birth: : 16-June-1962

Home address : Type IV / Qr. No. 2, IITM Colony, Pashan, Pune, India

Marital status : Married Sex : Male

Research Area

- Climate change
- Paleoclimatic/paleoenvironmental reconstructions and paleoclimate modeling
- Monsoon reconstruction using the isotopic analysis of speleothem carbonates
- Stable isotopic characteristics of precipitation and study of moisture dynamics
- Eco-system GHG flux studies and energy transfer processes
- Dendrochronology and dendrocliamtology

Specific Area

- Past rainfall reconstruction using tree rings, speleothems, coral, etc, and understanding the natural modes of monsoon variability and the causative mechanism controlling those variabilities.
- Study of the moisture source and transport processes using the precipitation isotopes.
- Study of carbon dynamics and GHG fluxes in representative ecosystems.
- Understanding the historical changes in surface ocean chemistry and climate variability through the stable (δ^{18} O and δ^{13} C) isotopic analysis of banded corals, bivalve, foraminifera on different time scales.
- Late Quaternary climate change/reconstruction through the analysis of geological, botanical, archaeological samples from different parts of India
- Understanding the past climatic changes in India through observational and modeling studies.

Award and Honors:

- Visiting Postdoctare: Department of Geology, Univ. of California, Santa Baraba
- Post Doctorate Researcher: Department of Chemistry, Univ. of California, San Diego
- Recipient of Research Contract Award of the International Atomic Energy Agency, Vienna, Austria during 2013-2016 and 2019-2021.
- Adjunct Professor, Savitribai Phule Pune University, Pune.

- Best paper award received in the category of the science of monsoon during the TROPMET Symposium organized by the Indian Meteorological Society in Dec 2019.
- Visiting faculty, University of Hyderabad, Center for Earth, Ocean and Atmospheric Sciences Associate Editor: Frontiers (https://www.frontiersin.org/journals/water#editorial-board)
 - Associate Editor: Quaternary International (https://www.sciencedirect.com/journal/quaternary-international/about/editorial-board)
 - AOGS Biogeoscience Section Secretary https://www.asiaoceania.org/society/public.asp?view=office_bearer20
 - Chairman: Ocean Society of India, Pune Chapter (2021-2022)
 - Received Certificate of Merit Award of the Ministry of Earth Sciences, Govt. of India (2021)

Others:

Project Director: MetFlux India Project: GHGs and energy flux observations at natural ecosystems across India.

Capacity Building Activities

- ➤ Taught *Isotope Systematics, Paleoclimatology,* to the IITM Graduate students
- > Climate Change to the MSc students of the Savitribai Phule Pune University (SPPU), Pune
- ➤ Atmospheric Science to the students of the International Earth Science Olympiad, held at Dept. of Geology, Anna University, May 2016 and 2015.
- ➤ Provided training to the students of the Earth Science Olympiad, Anna University, Chennai, during the summer 2015 and 2016.
- ➤ Paleoclimatology and Bioclimatology at the Advance Training in Meteorology, IMD, Pune 2014, 2015, 2016, 2019, 2021.
- ➤ Conducted training program on Green House Gases and Eddy Covariance Technique, IITM, Pune July 2017
- ➤ Organized an international conference "Asiaflux-2015" at IITM, Pune in Dec 2015.
- ➤ Conducted SERC School on Global Warming and Climate Change, IITM Pune Dec 2010.
- ➤ Currently teaching a full time online course to the M.Sc. students of Ocean and Atmospheric Sciences on *Climate Change and its Impact* at the Univ. of Hyderabad (Feb 2022 to date).

Guidance provided:

- ➤ Dr. Trina Bose Completed PhD (2014)
- > Dr. Nitesh Sinha, IITM Completed PhD (2019)
- ➤ Dr. Pramit Deb Burman, IITM Completed PhD (2021)
- ➤ Mr. Abirlal Matye, IITM undergoing PhD
- ➤ Ms. Aharna Sarkar, IISER, Pune (underway)
- ➤ Mr. Vishal Pawar, SPPU completed M.Tech. Dissertation (2021)
- ➤ Miss. Raessa A.S. Parakkatt, CUSAT, Cochin completed M.Sc. Dissertation (2021)
- ➤ Mr. Siddharth Birmal, SPPU, completed M.Sc. Dissertation (2019).
- Mr. Jayeh Waykole, N. Maharashtra University, Jalgaon, undergoing M.Sc. dissertation (2019)
- ➤ Mr. Aditya Belakar, SPPU, Pune Completed MSc Dissertation (2017).
- Mr. Aravind G.H. Univ. College, Kerala Univ. Completed M.Sc. Dissertation (2017).

Ms. Pooja Guliumbe, SPPU, Pune - Completed MSc dissertation, (2016).

Co-guidance:

- ➤ Ms. Sangeeta Mahajan, Deccan College completed M. Phil.
- ➤ Ms. Fousiya AA, Anna University, Chennai Awarded PhD (Feb 2019)
- ➤ Ms. Sonika Sandhu, Deccan College, Pune undergoing PhD
- > Mr. Kalyan Chakraborty, Dept. of Anthropology, University of Toronto completed PhD
- Post Doctoral Fellow Dr. Tania Guha, Project Scientist-C, IITM, (2016-2017).
- ➤ Post Doctoral Fellow Dr. Dipankar Sarma, IITM (May- 2020 to April 2022)

Publications in peer-reviewed journals and edited book chapter

2022

80. Abirlal Metya, Amey Datye, **Supriyo Chakraborty**[#], Yogesh .K. Tiwari, Prabir K. Patra, Charuta Murkute 2022 Methane sources from waste and natural gas sectors detected in Pune, India, by concentration and isotopic analysis. *Science of the Total Environment* (moderate revision underway).

- **79.** Fousiya A.A, Aravind, G.H, Hema Achyutan, **Supriyo Chakraborty**[#], Rajib Chattopadhyay, Amey Datye, Charuta Murkute, Aasif M. Lone, R.H. Kripalani, M. G. Yadava, P.M. Mohan 2022 Modulation of the precipitation isotopes by the dynamic and thermodynamic variables of the atmosphere in southern parts of India. *Water Resources Research* (minor revision underway).
- **78.** Fousiya A. A; Matthias Alberti; Hema Achyuthan; **Supriyo Chakraborty**; Takaaki K Watanabe; Naveen Gandhi; Phanindra Reddy; Aasif Mohmad Lone 2022 Anomalous δ^{18} O signal in a giant clam shell (Tridacna maxima) from the Lakshadweep Archipelago, India: Signature of thermal stress during a coral bleaching event. *Coral reef* (accepted 13-4-2022).
- **77. Chakraborty**, **S**[#]., Burman, P.K.D., Sarma, D. *et al.* Linkage between precipitation isotopes and biosphere-atmosphere interaction observed in northeast India. *npj Clim Atmos Sci* **5**, 10 (2022). https://doi.org/10.1038/s41612-022-00231-z;
- **76.** Sarma, D, Deb Burman, P.K., **Chakraborty**, **S**[#]., Gogoi, N., Bora, A., Metya, A., Datye, A., Murkute, C., Karipot, K. 2021 Quantifying the net ecosystem exchange at a semi-deciduous forest in northeast India from intra-seasonal to seasonal time scale. *Agricultural and Forest Meteorology* 314 (2022) 108786. https://doi.org/10.1016/j.agrformet.2021.108786
- **75.** S. Mahajan, V. Sathe, N. Rai, S. Agrawal, **Supriyo Chakraborty 2022** Human tooth enamel carbon and oxygen stable isotope dataset from chalcolithic Inamgaon (India), *Data in Brief*, https://doi.org/10.1016/j.dib.2021.107711

74. Deb Burman, P.K., **Supriyo Chakraborty**, Tarek S. El-Madany, R. Ramasubramanian, Nirmali Gogoi, Palingamoorthy Gnanamoorthy, Charuta Murkute, R. Nagarajan, Anandakumar Karipot 2022 A comparative study of ecohydrologies of a tropical mangrove and a broadleaf deciduous forest using eddy covariance measurements. *Meteorology and Atmospheric Physics* https://doi.org/10.1007/s00703-021-00840-y.

2021

- 73. Gupta, S., Tiwari, Y.K., Revadekar, J.V. *et al.* An intensification of atmospheric CO₂ concentrations due to the surface temperature extremes in India. *Meteorol Atmos Phys* (2021). https://doi.org/10.1007/s00703-021-00834-w
- **72.** Ranjini Ray, Atreyee Bhattacharya, Gaurav Arora, Kushank Bajaj, Keyle Horton, Shi Chen, Supriyo Chakraborty and Amir Bazaz 2021 Colonial era famines of southern Indian semi-arid regions were not caused by extreme rainfall deficits. *Scientific Reports* **11**, 17568 (2021). https://doi.org/10.1038/s41598-021-96826-2.
- 71. Gnanamoorthy, P., **Chakraborty S**; Nagarajan R; Selvam V; Ramasubramanian R; Deb Burman P; Partha Sarathy P; Qinghai Song; Yiping Zhang et al. 2021 Seasonal variation of methane fluxes in a mangrove ecosystem in South India: an eddy covariance-based approach. *Estuaries and Coasts* 15 Aug 2021 doi: https://doi.org/10.1007/s12237-021-00988-1.
- 70. Metya, A.L., **Chakraborty**, **S**[#]., Datye, A., Bhattacharya, S.K., Deb Burman, P.K., Dasgupta, P., Sarma, D., Gogoi, N., and Bora, A. 2021 Isotopic and concentration analyses of CO2 and CH4 in association with the eddy-covariance based measurements in a tropical forest of north-east India. *Earth and Space Science* 21 May 2021; https://doi.org/10.1029/2020EA001504.
- 69. Deb Burman, P.K., Launiainen, S., Mukherjee, S., **Chakraborty**, Supriyo, Gogoi, Nirmali, Murkute, Charuta, Lohani, P., Sarma, Dipankar, Kumar, K. 2021 Ecosystem-atmosphere carbon and water exchanges of subtropical evergreen and deciduous forests in India. *Forest Ecology and Management* Vol. 495, 1 September 2021, 119371; https://doi.org/10.1016/j.foreco.2021.119371.
- 68. Tejavath, Charan Teja, Ashok, Karumuri, **Chakraborty, Supriyo** 2021 The role of the orbital parameters in the Indian monsoon during the Mid-Holocene, as deciphered from atmospheric model experiments. *Frontiers in Earth Sci.* published 14-May-2021; doi: 10.3389/feart.2021.631310.
- 67. Sandhu, S, Sathe, V, Chakraborty, KS, Chakarborty, S and Chauhan, PR. 2021. Carbon and Oxygen Isotope Analysis of Modern Cattle (Bos indicus) Molars from the Central Narmada Valley, India. *Ancient Asia*, 12: 3, pp. 1–19. DOI: https://doi.org/10.5334/aa.210
- 66. Metya, A., Datye, A. Chakraborty, S[#]., Tiwari, Y.K., Sarma, D., Bora, A., Gogoi, N. 2021 Diurnal and seasonal variability of CO2 and CH4 concentrations in a semi-urban environment of western India. *Scientific Reports*. 11: 2931.doi: 10.1038/s41598-021-82321-1

2020

- 65. Metya, A., Dagupta, P., Halder, S., **Chakraborty, S**[#]. and Tiwari, Y. K. (2020). COVID-19 Lockdowns Improve Air Quality in the South-East Asian Regions, as Seen by the Remote Sensing Satellites. *Aerosol Air Qual. Res.* 20: 1772–1782. https://doi.org/10.4209/aaqr.2020.05.0240.
- 64. **Chakraborty**, **S***. **2020** Potential of reef-building corals to study the past Indian monsoon rainfall variability *Current Science* 119 (2) 273-281. doi: 10.18520/cs/v119/i2/273-281.
- 63. Lone, A.M., Achyuthan, H., **Chakraborty**, **S**[#]., Metya, A., Datye, A., Kripalani, R.H., Fousiya, A.A., (2020) Controls on the isotopic composition of daily precipitation characterized by dual moisture transport pathways at the monsoonal margin region of North-Western India, *Journal of Hydrology*, 588; 125106; doi: https://doi.org/10.1016/j.jhydrol.2020.125106.

- 62. Gnanamoorthy, P., Selvam, V., Deb Burman, P.K., Chakraborty, S., Karipot, A., Nagarajan, R., Ramasubramanian, R., Song, Q., Zhang, Y., Grace, J., (2020) Seasonal variations of net ecosystem (CO2) exchange in the Indian tropical mangrove forest of Pichavaram, *Estuarine*, *Coastal and Shelf Science*, doi: https://doi.org/10.1016/j.ecss.2020.106828.
- 61. Deb Burman, P.K., Narasinha J. Shurpali, Thara V. Prabha, Anandakumar Karipot, **Supriyo Chakraborty**, Saara Lind, Pertti J. Martikainen, Seethala Chellappan, Antti Arola, Subharthi Chowdhuri, Yogesh K. Tiwari, P. Murugavel, Dinesh Gurnule, Kiran Todekar. 2020 Eddy covariance measurements of CO2 exchange from agroecosystems located in subtropical (India) and boreal (Finland) climatic conditions. *J Earth Syst Sci* 129: 43. https://doi.org/10.1007/s12040-019-1305-4.
- 60. Deb Burman, P.K., Sarma, D., **Chakraborty**, S., Karipot, A., and Jain, A.K. 2020 The effect of Indian summer monsoon on the seasonal variation of carbon sequestration by a forest ecosystem over North-East India. *SN Appl. Sci.* (2020) 2: 154. https://doi.org/10.1007/s42452-019-1934-x
- 59. Nitesh Sinha and **S. Chakraborty** 2020 Isotopic interaction and source moisture control on the isotopic composition of rainfall over the Bay of Bengal. *Atmospheric Research*. V. **35**, 1 May 2020, 104760 (https://doi.org/10.1016/j.atmosres.2019.104760).

2019

- 58. Niels C. Munksgaard, Naoyuki Kurita, Ricardo Sánchez-Murillo, Nasir Ahmed, Luis AraguasAraguas, Dagnachew L. Balachew, Michael I. Bird, **Supriyo Chakraborty**, Nguyen Kien Chinh, KimM. Cobb, Shelby A. Ellis, Germain Esquivel-Hernández, Samuel Y. Ganyaglo, Jing Gao, Didier Gastmans, Kudzai F. Kaseke, Seifu Kebede, Marcelo R. Morales, Moritz Mueller, Seng Chee Poh, Vinícius dos Santos, He Shaoneng, Lixin Wang, Hugo Yacobaccio, Costijn Zwart 2019 Data Descriptor: Tropical daily observations of stable isotope compositions in rainfall and calculated stratiform rainfall fractions. *Scientific Reports* https://doi.org/10.1038/s41598-019-50973-9
- 57. Bajaj, K., Thomas, R., Yadav, A., Datye, A., **Chakraborty, S****., 2019 Hydrological Linkages between different Water Resources from two contrasting Ecosystems of western peninsular India: A stable isotope perspective. *Isotope in Environment and Health Studies* (doi: 10.1080/10256016.2019.1666121).
- 56. Rajyalakshmi Garaga, Supriyo Chakraborty, Hongliang Zhang, Sharad Gokhale, Qiao Xu, Sri Harsha Kota 2019 Influence of anthropogenic emissions on wet deposition of pollutants and rainwater acidity in Guwahati, a UNESCO heritage city in Northeast India. *Atmospheric Research*, Vol 232, 1 Feb 2020, 104683. Doi:10.1016/j.atmosres.2019.104683.
- 55. Shekhar, S., Kumaresan, S., **Chakraborty**, **S**., Sundaramanickam, A., and Balachandar, K. (2019) Total Organic Carbon Profile in Water and Sediment in Coral Reef Ecosystem of Agatti Island, Lakshadweep Sea. *Indian Journal of Geo Marine Sciences* V. 48 (06) 936-942.
- 54. Gnanamoorthy, P, V.Selvam, R.Ramasubramanian, **S. Chakraborty**, D. Pramit, A. Karipot (2019) Soil organic carbon stock in natural and restored mangrove forests in Pichavaram south east coast of India. *Indian Journal of Geo Marine Sciences* **48** (05) 801-808.
- 53. Sarma, D., Baruah, K.K., **Chakraborty, S.**, Karipot, A., and Baruah, R., 2019 Impact of ecosystem respiration on carbon balance in a semi-evergreen forest of Northeast India. *Current Science.* **116** (5) 751-757.
- 52. Gnanamoorthy, P, V.Selvam, R.Ramasubramanian, **S. Chakraborty**, Pramit Kumar Deb Burman, A. Karipot 2019 Diurnal and seasonal patterns of soil CO2 efflux from south east coastal Indian mangrove. *Environ Monit Assess* 191:258 https://doi.org/10.1007/s10661-019-7407-2.
- 51. Tejavath, C., Ashok, K., Chakraborty, S., Ramesh, R., 2019 A PMIP3 narrative of modulation of ENSO teleconnections to the Indian summer monsoon by background changes in the Last Millennium. *Climate Dynamics* (doi:10.1007/s00382-019-04718-z)

- 50. Sinha, N., **Chakraborty**, **S.**, Mohan, P.M. 2019 Modern rain-isotope data from Indian island and the mainland on the daily scale forthe summer monsoon season. *Data in Brief*. PII:S2352-3409(19)30144-1DOI:https://doi.org/10.1016/j.dib.2019.103793
- 49. Deb Burman, Sarma, D., Morrison, R., Karipot, A., **Chakraborty**, **S** (2019) Seasonal variation of evapotranspiration and its effect on surface energy budget closure at a tropical forest over north-east India. *J. Earth Syst. Sci.* 128:127 (https://doi.org/10.1007/s12040-019-1158-x).
- 48. N. Sinha, **S. Chakraborty**[#], Rajib Chattopadhyay, B.N. Goswami, P.M. Mohan, Dipak K. Parua, Dipankar Sarma, Amey Datye, S. Sengupta, K.K. Baruah, Subir Bera (2019) Isotopic investigation of the moisture transport processes over the Bay of Bengal, *J Hydrol* X V. 2 (doi:10.1016/j.hydroa.2019.100021).

2018

- 47. Sinha, N., Chattopadhyay, R., **Chakraborty, S.** 2018 Bay of Bengal branch of Indian Summer Monsoon and its association with spatial distribution of rainfall patterns over India. *Theoretical and Applied Climatology* (https://doi.org/10.1007/s00704-018-2709-9).
- 46. Saravanan Kumaresan, Sudhanshu Shekhar, **Supriyo Chakraborty**, Arumugam Sundaramanickama, Nowfer Kuly (2018) Environmental variables and nutrients in selected islands of Lakshadweep Sea; Addressing coral bleaching. *Regional Studies in Marine Science* **22**: 38-48.
- 45. Chakraborty, K.S., **Chakraborty**, **S**., Le Roux, P., L Miller, H.M., Shirvalkar, P., Rawat, Y. (2018) Enamel Isotopic data from the domesticated animals at Kotada Bhadli, Gujarat; reveal specialized animal husbandry during the Indus Civilization. *J Archaeo. Report* 21: 183-199.
- 44. Charan Teja Tejavath, Ashok Karumuri, **Supriyo Chakraborty**, and Ramesh Rengaswamy (2018) The ENSO teleconnections to the Indian summer monsoon climate through the Last Millennium as simulated by the PMIP3. *Climate of the Past -Dis*. https://doi.org/10.5194/cp-2018-7
- 43. Sinha, N., Gandhi, N., Chakraborty, S., Krishnan, R., Yadava, M.G., Ramesh, R. 2018. Abrupt climate change at ~ 2800 Yr BP evidenced by high-resolution oxygen isotopic record of a Stalagmite from Peninsular India. *The Holocene* **28** (11): 1720-1730 (https://doi.org/10.1177/0959683618788647).
- 42. **S. Chakraborty**[#], A. R. Belekar, A. Datye, N. Sinha (2018) Isotopic study of intraseasonal variations of plant transpiration: an alternative means to characterize the dry phases of monsoon. *Scientific Reports* 8: 8647.Doi:10.1038/s41598-018-26965-6
- 41. Chatterjee, A., Roy, A., Chakraborty, S., Sarkar, C., Singh, S., Karipot, A.K., Ghosh, S.K., Mitra, A., and Raha, S. (2018) Biosphere Atmosphere Exchange of CO2, H2O Vapour and Energy during Spring over a High Altitude Himalayan Forest at Eastern India. *Aerosol and Air Quality Research* (doi:10.4209/aaqr.2017.12.0605).
- 40. Sarma Dipankar, Baruah, K.K., Baruah, R., Gogoi, N., **Chakraborty,S.,** & Karipot, A.K. 2018 Carbon dioxide, water vapour and energy fluxes over a semi-evergreen forest in Assam, Northeast India using eddy covariance technique. *J. Earth Syst. Sci.* (doi: 10.1007/s12040-018-0993-5).

2017

39. Deb Burman, P.K., Sarma, D., Williams, M., Karipot, A., **Chakraborty, S.** (2017) Estimating Gross Primary Productivity of a tropical forest ecosystem over north-east India using LAI and other atmospheric variables *J. Earth Syst. Sci.* V 126:99 doi: 10.1007/s12040-017-0874-3.

2016

38. Fousiya, A.A., **Chakraborty, S.**, Achyuthan, H., Gandhi, N., Sinha, N., Datye, A. (2016) Stable isotopic investigation of Porites coral from the Minicoy Island. *Indian Journal of Geo-Marine Sciences* 45(11) 1465-1470.

- 37. Mohan P.M., R. Karuna Kumari, m. Murugananthan, V.V. Ubare, C. Jeeva, P. Nagarjuna, J. Singha, P. Purva, **S.Chakraborty** (2016) An experimental study on the carbon flux within the coral community, *British J Env & Climate Change* 6(1): 28-42
- 36. Mohan, P., R.K. Kumari, M. Muruganantham, V.V. Ubare, C.Jeeva and **S. Chakraborty** (2016) Dissolved organic (DOC) and inorganic carbon (DIC) and its distribution in the nearshore waters off Port Blair, Andman Islands, India. *International J of Oceans and Oceanoography* v. 10 (1) 29-48.
- 35. Ravi Kumar K., Valsala V., Tiwari Y.K., Revadekar J.V., Pillai P., Prakash, **Chakraborty, S.**, Murtugudde R. (2016) Intra-seasonal variability of atmospheric CO2 concentrations over India during summer monsoons *Atmospheric Environment*, 142, October 2016, DOI:10.1016/j.atmosenv. 229-237
- 34. Mukherjee, P., Sinha, N., **Chakraborty**, **S**[#] (2016) Investigating the dynamical behavior of the Inter-tropical Convergence Zone since the last glacial maximum based on terrestrial and marine sedimentary records. *Quaternary International* http://dx.doi.org/10.1016/j.quaint.2016.08.030.
- 33. **Chakraborty**, **S**[#]., Sinha, N., Chattopadhyay, R., Sengupta, S., Mohan, P.M., Datye, A. (2016) Atmospheric controls on the precipitation isotopes over the Andaman Islands, Bay of Bengal. *Scientific Reports* 6, 19555; doi:10.1038/srep19555.

2015

- 32. Bose. T., Sengupta, S., **Chakraborty, S.**, Borgaonkar, H.P. (2015) Reconstruction of soil water oxygen isotope values from tree ring cellulose and its implications for paleoclimate, *Quaternary International*. http://dx.doi.org/10.1016/j/quaint.07.052
- 31. **Chakraborty**, **S**[#]. (2015) Interannual climate variabilities of the tropical Indian Ocean and coral isotopic records. *Good. Geol. Mag.* Vol 29 (1 & 2) pp 61-66. **2014**
- 30. Bose, T., **Chakraborty**, **S.**, Borgaonkar, H.P., Sengupta, S., R. Ramesh (2014) Estimation of past atmospheric carbon dioxide levels using tree-ring cellulose d13C, *Current Science* 107(6): 971-982.
- 29. Ghosh, R., Paruya, D.K., Khan M.A., **Chakraborty, S.**, Sarkar, A., Bera, S. (2014) Late Quaternary climate variability and vegetation response in Ziro Lake Basin, Eastern Himalaya: A multiproxy approach. *Quaternary International*. doi:10.1016/j.quaint.2014.01.046

2013

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- 27. Bose, T., Miisra, S., **Chakraborty, S.** and Reddy, K. (2013) Gamma-ray activity as a tool for identification of hidden ejecta deposits around impact crater on basaltic target: example from Lonar crater, India 2013 *Earth Moon and Planet* 111, 31-46.
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2011

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- 23. **Chakraborty**, **S**[#]., Jana, B.N., Bhattacharya, S.K., Robertson, I. (2011) Carbon isotopic composition of fossil leaves from the Early Cretaceous sediments of western India. *J. Ear. Syst. Sci.* 120:703-211.
- 22. **S. Chakraborty**[#], S.K.Bhattacharya, M. Banerjee, P. Sen (2011) Study of Holocene Precipitation Variation from the Carbon Isotopic Composition of Sediment Organic Matter from South Bengal Basin. *Earth Science India.* 4(II), 39-48.

2010

21. Ramesh R., Tiwari M., **Chakraborty S.**, Managave S. R., Yadava M.G. and Sinha D.K. (2010) Retrival of South Asian Monsoon Variation during the Holocene from climate natural archives. *Current Science* 99: 1770-1786.

2008

20. **Chakraborty**, **S**[#]., Dutta, K., Bhattacharyya, A., Nigam, M., Schuur, E.A.G., Shah S. (2008) Atmospheric 14C variability recorded in tree rings from Peninsular India: Implications for fossil fuel CO2 emission and atmospheric transport. *Radiocarbon* 50(3): 321–330

2007

- 19. Farooqui A., Venkat M., Reddy D.R., and **Chakraborty S.** (2007) Climatic Oscillations and sea level fluctuations since Middle Holocene in Bay of Bengal, India: Implications of palyno-succession at century to millennial scale. *International Journal of Oceans and Oceanography*. Alexandria. Vol 2(1)
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