

1. Name and Correspondence Address:

Prosenjit Ghosh
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2. Email and Contact Number:

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8277673570 (M)
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3. Institution: Indian Institute of Science, Bangalore**4. Date of Birth:** 16th July, 1970**5. Gender:** Male**6. Category:** General**7. Whether differently abled:** NO**8. Academic Qualification:**

S No	Degree	Subject	Class CGP marks	Year	University	Additional Particulars
1	B. Sc.	Geology (Hons)	First class, first division (68.9 %)	1991	Delhi	University Rank 7
2	M. Tech.	Applied Geology	First class (CGPA = 8.0/10)	1994	University of Roorkee	Rank 3,
3	Ph. D.*	Physics	NA	2001	Devi Ahilya Vishwavidyalaya and Physical research laboratory	NA

9. PhD Details:

Title: Geochemistry of Gondwana Carbonates

Guide: Prof. S.K. Bhattacharya

Institution: Devi Ahilya Vishwavidyalaya and Physical research Laboratory, Ahmedabad

Year of Award: 2001

10. Work Experience:

S No	Period	Place of Employment	Designation	Scale of pay
1	May 1, 2002 till Nov 30, 2003	Max Plank Institute of Biogeochemistry, Jena Germany	IAEA WMO Postdoctoral Fellow	EURO€ 40,000 (annual)
2	May 1, 2003 till Nov 26, 2006	California Institute of Technology, USA	Postdoctoral fellow	US\$ 38,000 (annual)
3	Nov 28, 2006 till May 30, 2017	Tokyo Institute of Technology	Assistant Professor	¥4000000 (annual)
4	October 1, 2017 till date	Indian Institute of Science, Bangalore	Assistant Professor	
5	April 8, 2015 till date	Indian Institute of Science, Bangalore	Associate Faculty, Interdisciplinary Centre for Water Research (ICWaR), Centre for Atmospheric and Oceanic Science (CAOS), Divecha Centre for Climate change (DCCC)	

11. Awards and Recognition:

- June 2021- Aug-2021 Weizmann Institute of Science Visiting faculty position
- July-Aug, 2019 Academia Sinica Visiting Professor
- My 2015 Visiting Researcher McGill University Canada
- June 2013 Visiting Scientist MPI, Jena, Germany
- May 2013-Aug, 2013 Academia Sinica Visiting Professor

- May 2014- Aug 2014 MOEST fellowship, Academia Sinica Visiting Professor
- 2002-2003- IAEA WMO fellowship, Vienna, Austria
- 2003-2007 Caltech postdoctoral fellow, USA
- Cutting Edge Research grant from the Indian Institute of Science, Bangalore. 1,800000 INR was awarded for the purchase of Isotope ratio mass spectrometer MAT 253 multicollection with Gas bench II. (2008-2010)
- ICMOD Nepal for Characterize source and composition of winter fog water in the Indo-Gangetic Plains (2015-2017) research grant of \$20000

12. Publications:

SI No.	Authors	Title	Year	Journal Title	Vol/Issue	Pages
1.	S. Banerjee; P. Ghosh; Y. Banerjee; R. Riding	Oxygen isotopic composition of Paleoproterozoic seawater revealed by clumped isotope analysis of dolomite, Vempalle Formation, Cuddapah, India	2023	<i>Chemical Geology</i>	621	121356
2.	Y. P. Singh; O. Kingson; K. M. Sharma; P. Ghosh; R. Patnaik; R. P. Tiwari; J. K. Pattanaik; P. Kumar; H. Thomas; N. P. Singh; N. A. Singh	Evolution of the Permo-Triassic Satpura Gondwana Basin, Madhya Pradesh, India: Insights from geochemical provenance and palaeoclimate of the siliciclastic sediments	2022	<i>Geological Journal</i>		44562
3.	P. Pathak; P. Ghosh; A. Swaraj; T.-L. Yu; C.-C. Shen	Role of carbon and sulfur biogeochemical cycles on the seasonal arsenic mobilization process in the shallow groundwater of the Bengal aquifer	2022	<i>Applied Geochemistry</i>	141	105322
4.	P. Pathak; P. Ghosh; A. Mukherjee; U. Ghosal; M.-C. Liang; P. K. Sikdar; R. Kaushal	Impact of differential surface water mixing on seasonal arsenic mobilization in shallow aquifers of Nadia district; western Bengal Basin, India	2022	<i>Journal of Hydrology</i>	612	128270
5.	P. Pathak; P. Ghosh; S. Banerjee; R. S. Chatterjee; N.	Relic surface water (clay-pore water) input triggers arsenic release into the shallow	2022	<i>Journal of Earth System Science</i>	131	80

	Muzakkira; P. K. Sikdar; U. Ghosal; M.-C. Liang; K. Meeran	groundwater of Bengal aquifers				
6.	A. Nazir; M. A. Khan; P. Ghosh	Assessment of variations in metal concentrations of the Ganges River water by using multivariate statistical techniques	2022	<i>Limnologica</i>	95	125989
7.	S. Mondal; R. Chakrabarti; P. Ghosh	A multi-proxy ($\delta^{44}/^{40}\text{Ca}$, Sr/Ca , and $\Delta 47$) study of fish otoliths for determination of seawater temperature	2022	<i>Chemical Geology</i>	605	120950
8.	P. Ghosh; V. S. Rajawat; A. Nazir; Y. Banerjee; A. K. Nath; T. Sakthivel	Stable isotope on hilsa shad (<i>Tenualosa ilisha</i>) otoliths revealed migratory behavior of a population found in Hooghly River, West Bengal, India	2022	<i>Environmental Biology of Fishes</i>	105	1909-1918
9.	S. Banerjee; P. Ghosh	Carbonate clumped isotope analysis using isotope dilution	2022	<i>International Journal of Mass Spectrometry</i>	481	116916
10.	R. Rangarajan; P. Pathak; S. Banerjee; P. Ghosh	Floating boat method for carbonate stable isotopic ratio determination in a GasBench II peripheral	2021	<i>Rapid Communications in Mass Spectrometry</i>	35	e9115
11.	K. Prasanna; P. Ghosh; R. A. Eagle; A. Tripathi; V. V. Kapur; R. F. Feeney; B. R. Fosu; D. Mishra	Temperature Estimates of Lower Miocene (Burdigalian) Coastal Water of Southern India Using a Revised Otolith "Clumped" Isotope Paleothermometer	2021	<i>Geochemistry, Geophysics, Geosystems</i>	22	e2020GC009601
12.	C. Hillaire-Marcel; S.-T. Kim; A. Landais; P. Ghosh; S. Assonov; C. Lécuyer; M. Blanchard; H. A. J. Meijer; H. C. Steen-Larsen	A stable isotope toolbox for water and inorganic carbon cycle studies	2021	<i>Nature Reviews Earth & Environment</i>	2	699-719
13.	P. Ghosh; L. Ramdas; Y. Banerjee; S. Thamizharasan; S. Banerjee	Seasonal freshwater flux estimation using mollusc from the tropical Mandovi Zuari estuary, Goa, India	2021	<i>Journal of Earth System Science</i>	130	107
14.	B. R. Fosu; P. Ghosh; T. B. Weisenberger; S. Spürigin; S. G. Viladkar	A triple oxygen isotope perspective on the origin, evolution, and diagenetic alteration of carbonatites	2021	<i>Geochimica et Cosmochimica Acta</i>	299	52-68
15.	S. S. Dar; P. Ghosh; C. Hillaire-Marcel	Convection, Terrestrial Recycling and Oceanic Moisture Regulate the Isotopic Composition of	2021	<i>Journal of Geophysical Research: Atmospheres</i>	126	e2020JD032853

		Precipitation at Srinagar, Kashmir				
16.	H. Bhagat; P. Ghosh; D. Nagesh Kumar	Estimation of seasonal base flow contribution to a tropical river using stable isotope analysis	2021	<i>Journal of Hydrology</i>	601	126661
17.	C. Pramanik; P. Ghosh; S. Banerjee; M.-C. Liang	Ab initio quantum chemical studies of isotopic fractionation during acid digestion reaction of dolomite for clumped isotope application	2020	<i>Rapid Communications in Mass Spectrometry</i>	34	e8926
18.	C. Pramanik; S. Chatterjee; B. R. Fosu; P. Ghosh	Isotopic fractionation during acid digestion of calcite: A combined ab initio quantum chemical simulation and experimental study	2020	<i>Rapid Communications in Mass Spectrometry</i>	34	e8790
19.	V. Paul; Y. Banerjee; P. Ghosh; S. B. Busi	Depthwise microbiome and isotopic profiling of a moderately saline microbial mat in a solar saltern	2020	<i>Scientific Reports</i>	10	20686
20.	B. R. Fosu; R. Subba; R. Peethambaran; S. K. Bhattacharya; P. Ghosh	Technical Note: Developments and Applications in Triple Oxygen Isotope Analysis of Carbonates	2020	<i>ACS Earth and Space Chemistry</i>	4	702-710
21.	B. R. Fosu; P. Ghosh; S. G. Viladkar	Clumped isotope geochemistry of carbonatites in the north-western Deccan igneous province: Aspects of evolution, post-depositional alteration and mineralisation	2020	<i>Geochimica et Cosmochimica Acta</i>	274	118-135
22.	S. S. Dar; P. Ghosh; A. Swaraj; A. Kumar	Craig–Gordon model validation using stable isotope ratios in water vapor over the Southern Ocean	2020	<i>Atmos. Chem. Phys.</i>	20	11435-11449
23.	A. Biswas; R. Kaushal; P. Ghosh	Effect of Charring on Rice Grain Morphology and Carbon Isotopic Composition	2020	<i>Current Science</i>	118	1052-1059
24.	Y. Banerjee; S. Thamizharasan; P. Ghosh	Orbital forcing controlling dry time carbonate precipitation temperature over landmass in the northern mid-latitude during last 50,000 years revealed from carbonate clumped isotope thermometry	2020	<i>Current Science</i>	119	00113891

25.	S. Banerjee; P. Ghosh; C. Pramanik; S. Reddy B	Fractionation of stable oxygen and clumped isotopes during acid digestion of calcite in the presence of an external direct current electric field	2020	<i>Rapid Communications in Mass Spectrometry</i>	34	e8921
26.	P. Rahul; P. Ghosh	Long term observations on stable isotope ratios in rainwater samples from twin stations over Southern India; identifying the role of amount effect, moisture source and rainout during the dual monsoons	2019	<i>Climate Dynamics</i>	52	6893-6907
27.	R. Kaushal; P. Ghosh; A. K. Pokharia	Stable isotopic composition of rice grain organic matter marking an abrupt shift of hydroclimatic condition during the cultural transformation of Harappan civilization	2019	<i>Quaternary International</i>	512	144-154
28.	B. R. Fosu; P. Ghosh; D. Mishra; Y. Banerjee; P. K; A. Sarkar	Acid digestion of carbonates using break seal method for clumped isotope analysis	2019	<i>Rapid Communications in Mass Spectrometry</i>	33	203-214
29.	B. R. Fosu; P. Ghosh; D. M. Chew; S. G. Viladkar	Composition and U—Pb ages of apatite in the Amba Dongar carbonatite–alkaline complex, India	2019	<i>Geological Journal</i>	54	3438-3454
30.	P. Rahul; K. Prasanna; P. Ghosh; N. Anilkumar; K. Yoshimura	Stable isotopes in water vapor and rainwater over Indian sector of Southern Ocean and estimation of fraction of recycled moisture	2018	<i>Scientific Reports</i>	8	7552
31.	K. Prasanna; P. Ghosh; S. K. Bhattacharya; P. Rahul; K. Yoshimura; N. Anilkumar	Moisture rainout fraction over the Indian Ocean during austral summer based on $^{18}\text{O}/^{16}\text{O}$ ratios of surface seawater, rainwater at latitude range of 10°N – 60°S	2018	<i>Journal of Earth System Science</i>	127	60
32.	S. Kumar; A. K. Singh; P. Ghosh	Distribution of soil organic carbon and glomalin related soil protein in reclaimed coal mine-land chronosequence under tropical condition	2018	<i>Science of The Total Environment</i>	625	1341-1350
33.	S. Kumar; P. Ghosh	Sustainable bio-energy potential of perennial energy grass from reclaimed coalmine spoil (marginal sites) of India	2018	<i>Renewable Energy</i>	123	475-485

34.	R. Kaushal; P. Ghosh	Stable Oxygen and Carbon Isotopic Composition of Rice (<i>Oryza sativa</i> L.) Grains as Recorder of Relative Humidity	2018	<i>Journal of Geophysical Research: Biogeosciences</i>	123	423-439
35.	R. Kaushal; P. Ghosh	Oxygen isotope enrichment in rice (<i>Oryza sativa</i> L.) grain organic matter captures signature of relative humidity	2018	<i>Plant Science</i>	274	503-513
36.	C. Huguet; J. Routh; S. Fietz; M. A. Lone; M. S. Kalpana; P. Ghosh; A. Mangini; V. Kumar; R. Rangarajan	Temperature and Monsoon Tango in a Tropical Stalagmite: Last Glacial-Interglacial Climate Dynamics	2018	<i>Scientific Reports</i>	8	5386
37.	P. Ghosh; K. Prasanna; Y. Banerjee; I. S. Williams; M. K. Gagan; A. Chaudhuri; S. Suwas	Rainfall seasonality on the Indian subcontinent during the Cretaceous greenhouse	2018	<i>Scientific Reports</i>	8	8482
38.	I. Bogunovic; P. Pereira; I. Kistic; K. Sajko; M. Sraka	Tillage management impacts on soil compaction, erosion and crop yield in Stagnosols (Croatia)	2018	<i>CATENA</i>	160	376-384
39.	Y. Banerjee; P. Ghosh; R. Bhushan; P. Rahul	Strong sea forcing and warmer winter during solar minima ~2765 yr B.P. recorded in the growth bands of <i>Crassostrea</i> sp. from the confluence of river Ganges, Eastern India	2018	<i>Quaternary International</i>	479	48-57
40.	P. Ghosh; R. Rangarajan; K. Thirumalai; F. Naggs	Extreme Monsoon Rainfall Signatures Preserved in the Invasive Terrestrial Gastropod <i>Lissachatina fulica</i>	2017	<i>Geochemistry, Geophysics, Geosystems</i>	18	3758-3770
41.	P. Ghosh	Observations on Habitats for the Growth of <i>Tenuulosa ilisha</i> Population in the Hooghly River Estuary, West Bengal, India Revealed From Isotopic Analysis of Ear Bone (Otolith) Carbonate	2017	<i>Oceanography & Fisheries Open access Journal</i>	5	
42.	S. S. Dar; P. Ghosh	Estimates of land and sea moisture contributions to the monsoonal rain over Kolkata, deduced based on isotopic analysis of rainwater	2017	<i>Earth Syst. Dynam.</i>	8	313-321
43.	P. Rahul; P. Ghosh; S. K. Bhattacharya; K. Yoshimura	Controlling factors of rainwater and water vapor isotopes at Bangalore, India: Constraints from	2016	<i>Journal of Geophysical Research: Atmospheres</i>	121	13,936-13,952

		observations in 2013 Indian monsoon				
44.	P. Rahul; P. Ghosh; S. K. Bhattacharya	Rainouts over the Arabian Sea and Western Ghats during moisture advection and recycling explain the isotopic composition of Bangalore summer rains	2016	<i>Journal of Geophysical Research: Atmospheres</i>	121	6148-6163
45.	K. Prasanna; P. Ghosh; S. K. Bhattacharya; K. Mohan; N. Anilkumar	Isotopic disequilibrium in <i>Globigerina bulloides</i> and carbon isotope response to productivity increase in Southern Ocean	2016	<i>Scientific Reports</i>	6	21533
46.	K. Prasanna; S. K. Bhattacharya; P. Ghosh; S. Mahata; M.-C. Liang	Isotopic homogenization and scrambling associated with oxygen isotopic exchange on hot platinum: studies on gas pairs (O ₂ , CO ₂) and (CO, CO ₂)	2016	<i>RSC Advances</i>	6	51296-51303
47.	R. Kaushal; P. Ghosh; H. Geilmann	Fingerprinting environmental conditions and related stress using stable isotopic composition of rice (<i>Oryza sativa</i> L.) grain organic matter	2016	<i>Ecological Indicators</i>	61	941-951
48.	J. Jacob; P. Ghosh; K. U. Abdul Jaleel; B. R. Smitha; K. R. Abhilash; V. N. Sanjeevan	Influence of the upwelling events on the $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ of the benthic bivalve shells of the South Western Continental Margin of India	2016	<i>Environmental Earth Sciences</i>	75	155
49.	P. Ghosh; M. V. Vasiliev; P. Ghosh; S. Sarkar; S. Ghosh; K. Yamada; Y. Ueno; N. Yoshida; C. J. Poulsen	Tracking the migration of the Indian continent using the carbonate clumped isotope technique on Phanerozoic soil carbonates	2016	<i>Scientific Reports</i>	6	22187
50.	K. Prasanna; P. Ghosh; N. Anil Kumar	Stable isotopic signature of Southern Ocean deep water CO ₂ ventilation	2015	<i>Deep Sea Research Part II: Topical Studies in Oceanography</i>	118	177-185
51.	J. Feng; R. Liu; P. Chen; S. Yuan; D. Zhao; J. Zhang; Z. Zheng	Degradation of aqueous 3,4-dichloroaniline by a novel dielectric barrier discharge plasma reactor	2015	<i>Environmental Science and Pollution Research</i>	22	4447-4459
52.	M. Chatterjee; P. Ghosh; L. Ramdas; R. Chakrabarti	Isotopic and geochemical characterization of invader tilapia fishes from water bodies of West Bengal and Karnataka, India	2015	<i>Environmental Monitoring and Assessment</i>	187	712

53.	J. Jacob; P. Ghosh; A. P. Dineshababu; P. Sabu; K. Srinivas; B. Sulochanan	Hydrographical characteristics and oxygen isotopic signatures of water in a coastal environment (Mangalore) along the southeastern Arabian Sea	2014	<i>Journal of Oceanography</i>	70	251-266
54.	N. Yoshida; M. Vasilev; P. Ghosh; O. Abe; K. Yamada; M. Morimoto	Precision and long-term stability of clumped-isotope analysis of CO ₂ using a small-sector isotope ratio mass spectrometer	2013	<i>Rapid Communications in Mass Spectrometry</i>	27	207-215
55.	K. R. Renjith; M. M. Joseph; P. Ghosh; K. Habeeb Rahman; C. S. Ratheesh Kumar; N. Chandramohanakumar	Biogeochemical facsimile of the organic matter quality and trophic status of a micro-tidal tropical estuary	2013	<i>Environmental Earth Sciences</i>	70	729-742
56.	T. Guha; P. Ghosh	An experimental set-up for carbon isotopic analysis of atmospheric CO ₂ and an example of ecosystem response during solar eclipse 2010	2013	<i>Journal of Earth System Science</i>	122	623-638
57.	P. Ghosh; R. Chakrabarti; S. K. Bhattacharya	Short- and long-term temporal variations in salinity and the oxygen, carbon and hydrogen isotopic compositions of the Hooghly Estuary water, India	2013	<i>Chemical Geology</i>	335	118-127
58.	R. Rangarajan; P. Ghosh	Role of water contamination within the GC column of a GasBench II peripheral on the reproducibility of ¹⁸ O/ ¹⁶ O ratios in water samples	2011	<i>Isotopes in Environmental and Health Studies</i>	47	498-511
59.	R. Rangarajan; P. Ghosh	Rainwater Management and Harvesting Strategies for Human Needs: An Indian Perspective	2011	<i>Environmental Science & Technology</i>	45	9469-9470
60.	R. Rangarajan; P. Ghosh	Tracing the source of bottled water using stable isotope techniques	2011	<i>Rapid Communications in Mass Spectrometry</i>	25	3323-3330
61.	J. Josia; G. Prosenjit; K. K. Balchandran; G. Rejomon	Impact of seasonal oxygen deficiency on the phosphorous geochemistry of surface sediments along the Western Continental Shelf of India	2010	<i>Biogeosciences Discuss.</i>	2010	6089-6119
62.	C. N. Garzzone; G. D. Hoke; J. C. Libarkin; S.	Rise of the Andes	2008	<i>Science</i>	320	1304-1307

	Withers; B. MacFadden; J. Eiler; P. Ghosh; A. Mulch					
63.	P. Ghosh; J. Eiler; S. E. Campana; R. F. Feeney	Calibration of the carbonate 'clumped isotope' paleothermometer for otoliths	2007	<i>Geochimica et Cosmochimica Acta</i>	71	2736-2744
64.	T. Sempere; A. Hartley; P. Roperch	Comment on Rapid Uplift of the Altiplano Revealed Through ^{13}C - ^{18}O Bonds in Paleosol Carbonates""	2006	<i>Science</i>	314	760-760
65.	E. A. Schauble; P. Ghosh; J. M. Eiler	Preferential formation of ^{13}C - ^{18}O bonds in carbonate minerals, estimated using first-principles lattice dynamics	2006	<i>Geochimica et Cosmochimica Acta</i>	70	2510-2529
66.	P. Ghosh; M. R. G. Sayeed; R. Islam; S. M. Hundekari	Inter-basaltic clay (bole bed) horizons from Deccan traps of India: Implications for palaeo-weathering and palaeo-climate during Deccan volcanism	2006	<i>Palaeogeography, Palaeoclimatology, Palaeoecology</i>	242	90-109
67.	P. Ghosh; C. N. Garzzone; J. M. Eiler	Rapid Uplift of the Altiplano Revealed Through ^{13}C - ^{18}O Bonds in Paleosol Carbonates	2006	<i>Science</i>	311	511-515
68.	P. Ghosh; J. Adkins; H. Affek; B. Balta; W. Guo; E. A. Schauble; D. Schrage; J. M. Eiler	^{13}C - ^{18}O bonds in carbonate minerals: A new kind of paleothermometer	2006	<i>Geochimica et Cosmochimica Acta</i>	70	1439-1456
69.	P. Ghosh; M. Patecki; M. Rothe; W. A. Brand	Calcite- CO_2 mixed into CO_2 - free air: a new CO_2 -in-air stable isotope reference material for the VPDB scale	2005	<i>Rapid Communications in Mass Spectrometry</i>	19	1097-1119
70.	J. Harris; D. E. Mason; J. Li; K. W. Burdick; B. J. Backes; T. Chen; A. Shipway; G. Van Heeke; L. Gough; A. Ghaemmaghami; F. Shakib; F. Debaene; N. Winssinger	Activity Profile of Dust Mite Allergen Extract Using Substrate Libraries and Functional Proteomic Microarrays	2004	<i>Chemistry & Biology</i>	11	1361-1372
71.	P. Ghosh; J. T. Padia; R. Mohindra	Stable isotopic studies of palaeosol sediment from Upper Siwalik of Himachal Himalaya: evidence for high monsoonal intensity during late Miocene?	2004	<i>Palaeogeography, Palaeoclimatology, Palaeoecology</i>	206	103-114

72.	P. Ghosh; W. A. Brand	The effect of N ₂ O on the isotopic composition of air-CO ₂ samples	2004	<i>Rapid Communications in Mass Spectrometry</i>	18	1830-1838
73.	P. Ghosh; W. A. Brand	Stable isotope ratio mass spectrometry in global climate change research	2003	<i>International Journal of Mass Spectrometry</i>	228	12055
74.	P. Ghosh; S. K. Bhattacharya; A. Sahni; R. K. Kar; D. M. Mohabey; K. Ambwani	Dinosaur coprolites from the Late Cretaceous (Maastrichtian) Lameta Formation of India: isotopic and other markers suggesting a C ₃ plant diet	2003	<i>Cretaceous Research</i>	24	743-750
75.	P. Ghosh; S. Bhattacharya	Sudden warming epochs during 42 to 28 ky bp in the Himalayan region from stable isotope record of sediment column from a relict lake in Goting, Garhwal, North India	2003	<i>Current Science</i>	85	101-108
76.	P. Ghosh; S. K. Bhattacharya; A. D. Shukla; P. N. Shukla; N. Bhandari; G. Parthasarathy; A. C. Kunwar	Negative $\delta^{13}\text{C}$ excursion and anoxia at the Permo-Triassic boundary in the Tethys Sea	2002	<i>Current Science</i>	83	498-502
77.	P. Ghosh; S. K. Bhattacharya; A. M. Dayal; J. R. Trivedi; M. Ebihara; M. M. Sarin; A. Chakrabarti	Trace element and isotopic studies of Permo-Carboniferous carbonate nodules from Talchir sediments of peninsular India: Environmental and provenance implications	2002	<i>Proceedings of the Indian Academy of Sciences - Earth and Planetary Sciences</i>	111	87-93
78.	S. K. Bhattacharya; P. Ghosh; A. Chakrabarti	Isotopic analysis of Permo-Carboniferous Talchir sediments from East-Central India: signature of glacial melt-water lakes	2002	<i>Chemical Geology</i>	188	261-274
79.	P. Ghosh; P. Ghosh; S. K. Bhattacharya	CO ₂ levels in the Late Palaeozoic and Mesozoic atmosphere from soil carbonate and organic matter, Satpura basin, Central India	2001	<i>Palaeogeography, Palaeoclimatology, Palaeoecology</i>	170	219-236

***Article authored by supervised student or postdoctoral fellow 13.**

Detail of Patents:

Sl No.	Patent Title	Name of Applicants	Patent No.	Award Date	Agency/Country

14. Books / Reports / Chapters / General articles etc.

Sl No.	Title	Author's Name	Publisher	Year
1.	Cenozoic climatic record for monsoonal rainfall over the Indian region. Chapter 10 in Modern Climatology	K Mohan and P Ghosh	Editors: Shih-Yu (Simon) Wang, Intech Open Publisher	2012
2.	Annual Review of Earth and Planetary Sciences	P Ghosh	R. Jeanloz et al. (eds). Current Science,	2009
3.	Isotopic Tracers in Climatology	P Ghosh, SK Bhattacharya, K Froehlich	Environmental Radionuclides: Tracers and Timers of Terrestrial Processes vol. 16, Elsevier	2009
4.	Atmospheric CO ₂ during the late Palaeozoic and Mesozoic: Estimates from Indian Soils	P Ghosh, SK Bhattacharya, P Ghosh	A History of Atmospheric CO ₂ and its effects on Plants, Animals and Ecosystems (eds. eds. James R Ehleringer, Thure E. Cerling and M. Denise Dearing, Ecological Studies)	2005
5.	Isotopic Analysis of CO ₂ in air Samples: Requirements for a new CO ₂ -in-air Standard and Preparation of an air-CO ₂ Reference Mixture from Calcite Material	P Ghosh and WA Brand	World Meteorological Organization Global Atmosphere Watch, 12th WMO/IAEA Meeting Of Experts On Carbon Dioxide Concentration and related tracers Measurement Techniques	2003

15. Any Other Information:

- Mentorship:

Ph.D. students completed thesis and their present affiliation

1. Dr. Tania Guha (2013) Establishment of an experimental system in India to measure the mixing ratio and stable isotopic composition of air CO₂ Now Assistant Professor, Assistant Professor at Adamas University, West Bengal, India. Recipient of Best thesis award from IISc.
2. Dr. Ravi Rangarajan (2014) Title: Rainfall Using Stable Isotopes in Growth Bands of Terrestrial Gastropod Now Assistant Professor (Research), St. John's Medical College, Bangalore
3. Dr. Prasanna K Naidu (2017) Thesis Title: CO₂ ventilation, hydrological cycle over the Southern Ocean and clumped isotope thermometry in biogenic carbonates Now at Scientist C Birbal Sahni Institute of Palaeosciences, Lucknow.
4. Dr. Rahul Peethambaran (2017) Thesis Title: Study of the seasonal water cycle over the Indian subcontinent and the Southern ocean using stable isotopes in rainwater and water vapor. Now at Utrecht University, Netherland as Post Doctoral Fellow
5. Dr. Ritika Kaushal (2018) Thesis Title: Stable isotopic composition of rice grain organic matter as an archive of monsoonal climate. Now Clore Post Doctoral Fellow WIS, Isreal
6. Dr. Yogaraj Banerjee (2019) Thesis Title: Monsoon Seasonality during journey of the Indian plate from southern hemisphere revealed using clumped isotope and stable isotope proxies in mollusc shell growth bands Now Post Doctoral Fellow at National Taiwan University
7. Dr. Shaakir Shabir Dar (2020) Thesis Title: On the spatio-temporal distribution of stable isotope ratios in the hydrological cycle over India and the Southern Ocean Now Postdoctoral fellow
8. Dr. Himanshu Bhagat (2020) Thesis Title: On the spatio-temporal distribution of stable isotope ratios in the hydrological cycle over India and the Southern Ocean Now Research Associate at Divecha Centre for Climate Change, IISc
9. Dr. Benjamin Richard Fosu (2020) Thesis title: Stable isotope geochemistry of carbonatites: new insights into the petrogenesis and evolution. Now Research Associate at Centre for Earth Science, IISc
10. Chirantan Pramanik (2021) Thesis Title: Ab initio Quantum Chemical Studies on Kinetic Fractionation during analysis of Carbonates for the Clumped Isotope Thermometry. Centre for Atmospheric and Oceanic Science, IISc, Bangalore.
11. Pousali Pathak (2021) Thesis Title: Stable isotope and biogeochemical study of arsenic contamination in shallow groundwater at seasonal time intervals from West Bengal (Nadia district).

12. Sanchita Banerjee (2022) Thesis Title: Reconstruction of temperature for Cenozoic and Proterozoic Ocean water using clumped isotope thermometry

PhD thesis ongoing

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1. Mr. Surajit Mondal (CAOS, IISc)
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- Committees:

- Member, IAEA advisory committee 2017-2018
- Advisory Board member Quaternary Science Reviews (2019-present)
- Advisory Board member Journal Chinese Current Science (2020- present)
- Advisory Board ALLFED
- Member, Scientific Organizing Committee, Symposium on PRL 2019-present
- Member, Scientific Organizing Committee, Indian Ocean Biogeochemistry, 2022-present
- Organizing member International Geosciences Program (IGCP Project 572)
- Convenor, Department Curriculum Committee, Centre for Earth Sciences, Indian Institute of Science, Bangalore (January 2014-2019)

- Capacity building:

- December 17th -22nd, 2011: A six-day workshop on “METHODS IN GEOCHEMISTRY AND THEIR APPLICATIONS”. Involved twenty teachers and scholars from different

places across India. It comprised of four days of intensive teaching and tutorials, while two days were devoted mainly for laboratory experiment and discussion.

- Nov 2017- IODP 353 post cruise meeting (funded by IODP and Divecha Centre for climate change)
- Nov 2018 – DST funded GIAN course on 'Microbial carbonates in time and space' together with Prof. Robert Riding – University of Tennessee, USA

- Outreach:

- 2019, Nov 19, speaker at Inspire Science Camp – Government Arts College Udhagamandalam
- 2017 Nov 25, speaker at Inspire Science Camp – Manipal Institute of Technology

- Bio-sketch:

Known for his research on carbonate and water geochemistry from India. He is an outstanding researcher in the field of stable isotope geochemistry who has dedicated his time and effort to develop state of the art stable isotope research facility at the Centre for Earth Sciences, Indian Institute of Science (IISc), Bengaluru. He has contributed for more than a decade improving understanding of Earth System Processes with innovative isotope technique and methodology. He has demonstrated application of the tool of clumped, stable isotope and triple oxygen isotope for quantification of hydrological and Earth System Science processes viz. temperature and moisture circulation. Highlight of the research includes reconstruction of past seasonality, oceanics circulation and understanding of moisture recycling over land and ocean. Team of younger researchers from his group developed clumped isotope thermometry in otoliths, foraminifera and palaeosol carbonates. He showed a team effort in designing new proxy like rice grain organic matter and ammonium in clay as a recorder of relative humidity and wildfire intensity in the past respectively.