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PERSONAL DETAILS:

Residence	: Flat No. 702, Kalyan Apartments, Sector 24, Indira Nagar, Lucknow 226 016
Date of Birth	: 11-03-1967
Nationality	: Indian
Sex	: Male
Marital Status	: Married

ACADEMIC QUALIFICATION (In reverse chronological order):

Qualification	Subjects and Specializations	Name of College/ University/Board	Year	Percentage/ Grade
Ph.D.*	Geochemistry	School of Environmental Sciences, JNU, New Delhi	2000	Awarded
M.Phil.	Environmental Sciences	School of Environmental Sciences, JNU, New Delhi	1994	7.25/9
M.Tech.	Applied Geology	Govt. Engineering College, Ravishankar University, Raipur, M.P. (Presently, NIT Raipur)	1991	72.3%
B.Sc.	Geology, Chemistry, Botany, English	Govt. Science College, Ravishankar University, Raipur, M.P.	1987	63.8%

***Title of Ph.D. Thesis:** Geochemical Aspects of Rock weathering in the Upper Reaches of Kauvery River, South India [**Supervisor-** Professor V Rajamani (Vedharaman Rajamani)].

Other Qualifications: UGC/CSIR NET JRF (1993); Graduate Aptitude Test for Engineering-GATE (1992)

PROFESSIONAL EXPERIENCES (In reverse chronological order starting with the most recent):

Institution	Designation	Period	
		From	To
Birbal Sahni Institute of Palaeosciences, Lucknow	Scientist G	02nd January, 2023	Till date
Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, U.P.	Honorary Professor	13th January, 2020	Till date
Birbal Sahni Institute of Palaeosciences, Lucknow	Scientist F	01st January, 2018	1st January, 2023
Birbal Sahni Institute of Palaeobotany, Lucknow	Scientist E	22nd January, 2014	31 December, 2017
Central University of Himachal Pradesh	Associate Professor [Served the university on lien]	30th April, 2012	21st January, 2014
Birbal Sahni Institute of Palaeobotany, Lucknow	Scientist D	01st April, 2007	29th April, 2012
Birbal Sahni Institute of Palaeobotany, Lucknow	Scientist C	15th October 2001	31st March, 2007

RESEARCH INTERESTS

1. Understanding of earth surface processes particularly weathering, erosion, and provenance characterization;
2. Quaternary palaeoclimate and tectonics using geochemistry, clay mineralogy, and isotope systematics;
3. Subsurface fluid-rock interaction, relevant geochemical alteration, and its seismo-tectonic significance-matchmaking of Geochemistry, tectonics and geophysics;
4. Soil formation and nutrient dynamics including soil pollution and remedial strategies;
5. Geochemical characterization of radiogenic waste.

ADMINISTRATIVE POSITIONS:

Sl. No.	Institution	Administrative Position	Period	
			From	To
1	Birbal Sahni Institute of Palaeosciences	Convener, Research Development & Coordination Cell (RDCC)	2019	Till date
2	Birbal Sahni Institute of Palaeosciences	Member, Building Committee	2019	Till date
3	Birbal Sahni Institute of Palaeosciences	Convenor, Building and Electrical Maintenance Committee (BEMC)	2017	Till date
4	Birbal Sahni Institute of Palaeosciences	Transparency Officer	2020	Till date
5	Geological Survey of India	Nominated Member, Expert Committee, Sophisticated Instrumentation Analytical Facility (SAIF)	2018	Till date
6	Central Drug Research Institute	DST, New Delhi, Nominated member, Facility Management Committee, Sophisticated Instrumentation Analytical Facility (SAIF)	2018	2021
7	Birbal Sahni Institute of Palaeosciences	Nodal Officer, Covid-19 Testing Facility	2020	2021
8	Academy of Scientific and Innovative Research (AcSIR)	Institutional Coordinator of Ph.D. Program at BSIP	2020	2022
9	Central University of Himachal Pradesh	Warden, Men's Hostel	2012	2014
10	Central University of Himachal Pradesh	Sports Convenor	2012	2014

- Besides, served as the Nodal Officer in MoUs between BSIP and Amity University; ONGC, Dehradun; GSI, Lucknow and acted as a member in several committees like Audio-Visual, Photography, Transport, library committee, etc., in BSIP.

RESEARCH GUIDANCE:

Post-Doctoral Scholars-

Name of the Candidate	Name of the funding source	Status
Dr. Matsyendra Kumar Shukla (Currently, working as a Scientist-C in Borehole Geophysics Research Laboratory (BGRL), Ministry of Earth Sciences, Govt. of India.	N-PDF, SERB	Completed
Dr. Rupa Ghosh	Birbal Sahni Research Associateship	Completed
Dr. Sandhya Mishra	Birbal Sahni Research Associateship	Ongoing

Ph.D. Scholars-

Name of the Ph.D. Scholar	Name of the University/Institute	Role	Status
Dr. Kamlesh Kumar (Presently, working as a Scientist-D in BSIP, Lucknow)	Lucknow University, Lucknow	Co-Supervisor	Awarded
Dr. Meenakshi Hira	Central University of Himachal Pradesh, Dharamshala	Co-Supervisor	Awarded
Mr. Amritpal Singh Chaddha	Lucknow University, Lucknow	Co-Supervisor	Viva-voce completed
Ms. Shazi Farooqui	Lucknow University, Lucknow	Co-Supervisor	Thesis Submitted
Mrs. Tarasha Sharma	Kurukshetra University, Kurukshetra	Co-Supervisor	Ongoing
Mr. Mukesh Yadav	Banaras Hindu University, Varanasi	Co-Supervisor	Ongoing
Ms. Harshita Srivastava	Banaras Hindu University, Varanasi	Co-Supervisor	Ongoing
Mr. Ishwar Chandra Rahi	Banaras Hindu University, Varanasi	Co-Supervisor	Ongoing
Mr. Vijay Rathaur	Banaras Hindu University, Varanasi	Co-Supervisor	Ongoing
Mr. Harsh Kumar	BSIP Lucknow & Academy of Scientific and Innovative Research, Ghaziabad	Supervisor	Ongoing
Mr. Piyal Halder	BSIP Lucknow & Academy of Scientific and Innovative Research, Ghaziabad (Working in collaboration with Borehole Geophysics Research Laboratory, MoES, Govt. of India)	Supervisor	Ongoing

- Also evaluated and conducted viva voce for ~15 Ph.D. students from different universities such as JNU, New Delhi; Pondicherry University; Lucknow University; Bundelkhand University; The University of Petroleum & Energy Studies (UPES), Dehradun etc.

M.Sc. dissertation supervised-

Name of the Student	Title of thesis	Name of the University/Institute	Year
Bharti	Solid municipal waste dumping and release of heavy metals in surface water: a study based on surface water analysis of a small natural stream in Kangra District, Himachal Pradesh	Central University of Himachal Pradesh	2013
Niharika Bhardwaj .	Analysis of stages of weathering in Basalt from Deccan Bole Bed, Karad, Maharashtra	BSIP, Lucknow & Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow	2021
Mahanish Panda	Routine and analytical techniques applied in Sedimentological and Geochemical studies: a case study on Kapurdi lignite mine sample, Rajasthan, NW India	BSIP, Lucknow & Karnataka University	2019

M.Sc. Internships supervised-

Name of the Student	Title of thesis	Name of the University/Institute	Year
Parvej Alam	Palaeobotanical, Sedimentological, and Geochemical analysis of soil/sediment samples	BSIP, Lucknow & IIT Roorkee	2015
Vishal Srivastava	Sedimentological, Mineralogical, and Geochemical analysis of soil/sediment samples	BSIP, Lucknow & Banaras Hindu University	2018
Nikhil Sarwadnya	Nuances of Geochemical Techniques Used in Provenance/Palaeoclimatic Studies	BSIP, Lucknow & National Institute of Technology, Rourkela	2019
Krantiguru Shyamji Krishna Verma	Sedimentological, Mineralogical and Geochemical Analysis of Soil/Sediment samples	BSIP, Lucknow & Kachchh University, Bhuj	2019
Sharma Amrish kumar Rajivranjan	Techniques of grain size, mineralogy and Geochemical study for soil/sediment	BSIP, Lucknow & IIT (ISM) Dhanbad	2021
Ashwini Kumar	Nuances of Geochemical Techniques Used in Provenance/Palaeoclimatic Studies	BSIP, Lucknow & IIT Bombay	2021
Gourishankar Sahoo	Application of Geochemical tools in understanding the weathering pattern in Red Bole Bed, Southern Maharashtra	BSIP, Lucknow & Central University of Karnataka	2021

EXTRAMURAL AND IN-HOUSE RESEARCH PROJECTS (In chronological order):

S.No.	Title of the Projects	Funding Agency	Starting Date	Status
1	Evaluation of mobility of REE in a weathering process as model for actinide mobility in RAD-Waste Repository	CSIR New Delhi	Sept.1997	Completed in Oct.2011
2	Palynological, Geochemical and magnetic studies in Lahaul-Spiti and Ladakh regions: Implication to Palaeoclimate and Neo-tectonic.	BSIP, Lucknow	01 April 2002	Completed on 31 March 2007
3	Establishment of Palaeobotanical -Geochemical Laboratory at BSIP, Lucknow	BSIP, Lucknow	01 April 2002	Completed on 31 March 2007
4	Palaeoclimatic conditions in Late Quaternary lakes, East Antarctica: A multidisciplinary study using sedimentological, Palynological, Geochemical, Mineral magnetic and Chronological parameters	BSIP, Lucknow & NCAOR, Goa	April 2005	Completed in December 2009
5	Multi-proxy study on Quaternary sedimentary records of the Mahi River basin, Mainland Gujarat	DST, New Delhi	05 December 2005	Completed on 31 March 2012
6	Tectono climatic signature Ladakh & Lahaul sectors of Tethyan Himalaya during Quaternary period: A Multi-proxy approach using mineral magnetic, geochemical and Chronological parameters	BSIP, Lucknow	01 April 2007	Completed on 31 March 2012
7	Multi-proxy geological studies in Svalbard area and surrounding oceans: implication to Quaternary palaeoclimate, Permo-Carboniferous and Mesozoic-Tertiary biostratigraphy, biogeography, ecology, tectonics and hydrocarbon potential	BSIP, Lucknow & NCAOR, Goa	2008	Completed
8	Linking Vadose zone microbial ecology and geochemistry of sediments cores from the alluvial Mahi basin, Western India	SERB, New Delhi	July 2013	Completed
9	Study of late Cretaceous-Early Paleogene successions of South Shillong Plateau: implications for climate and relative sea level changes	BSIP, Lucknow	01st April, 2012	Completed
10	Geomorphological and tectono-climatic signatures in Trans and Tethyan Himalaya during Quaternary period: a multi-proxy approach	BSIP, Lucknow	01st April, 2012	Completed
11	Development of OSL, geochemical and stable isotope laboratories	BSIP, Lucknow	01st April, 2012	Completed
12	Biota and sedimentary sequences of Indus-suture zone, Ladakh Himalaya: biostratigraphical, palaeoenvironmental and palaeogeographical implications	BSIP, Lucknow	01st April, 2012	Completed

13	Study of Late Cretaceous-Early Paleogene successions of South Shillong Plateau: Implications for climate and relative sea level changes.	BSIP, Lucknow	April 2012	Completed
14	Glacial chronology, Palaeoclimatic reconstruction and their climatic implications in the Thangu Valley, Sikkim Himalaya, India with special emphasis on luminescence characteristics of feldspar and quartz	SERB, New Delhi	June 2015	Completed
16	A comprehensive study on Natural Radiation Level in Lesser Himalayan Zone on the southern slopes of the Dhauladhar range [Project no: SCN No 2013/36/64-BRNS/2618]	BRNS, DAE, New Delhi	2015	Completed
17	Tectonic-climatic-geomorphic-palaeoclimatic model of Kota Kinabalu valley, Borneo	Non-funded, scientific collaborative project between the researchers	2015	Completed
18	Palaeoclimatic modeling of Mio-Pliocene coal and volcanic ash deposits of Sarawak, Malaysia	Non-funded, scientific collaborative project between the researchers	2015	Completed
19	Carbonate platform development modeling, petroleum system evolutionary history of onland and offshore counterparts	Non-funded, scientific collaborative project between the researchers	2015	Completed
20	Quantification of the human-environment interaction with special reference to Anthropocene Epoch	BSIP, Lucknow	01st April, 2017	Completed on 31st March, 2019
21	Early Palaeogene climatic records and biostratigraphy: integrative multiproxy approach from South Shillong Plateau (Meghalaya) and lignite-bearing sequences of Rajasthan	BSIP, Lucknow	01st April, 2017	Completed on 31st March, 2019
22	Geomorphological and tectono-climatic signatures in Trans and Tethyan Himalaya during Quaternary period: a multi-proxy approach	BSIP, Lucknow	01st April, 2017	Completed on 31st March, 2019
23	Role of human-environment in tracing urbanization in different sectors of Ganga Plain: geochemical and metagenomics approach	BSIP, Lucknow	01st April, 2019	Completed
24	Biostratigraphy and Palaeoclimate of early Paleogene lignite bearing sequences of Rajasthan and coal bearing horizons of Meghalaya using integrated approach	BSIP, Lucknow	01st April, 2019	Completed
25	Holocene climate variations in Tethyan and Trans Himalaya with reference to local, regional and global forcings: a multiproxy approach	BSIP, Lucknow	01st April, 2019	Completed

26	**Fluid-rock interaction at shallow subsurface level in the upper continental crust and its implications in altering the textural, mineralogical and geochemical characteristics of host rocks [MoES/P.O.(Seismo)/1(374)/2019]**	**MoES, New Delhi**	**17th February, 2020**	**Ongoing**

*Bold indicates the ongoing project

RESEARCH PUBLICATION

❖ TOP TEN PUBLICATIONS –

1. **Anupam Sharma** and V. Rajamani (2000) Weathering of gneisses in the upper reaches of Cauvery River, south India: implications to neotectonics of the region. Chemical Geology V 166, 203-223.

2. **Anupam Sharma** and V. Rajamani (2000) Major element, REE and other trace element behavior in amphibolite weathering under semi-arid conditions south India. The Journal of Geology V 108, No. 4, 487-497.

3. **Anupam Sharma** and V. Rajamani (2001) Weathering of charnockites and sediment production in the catchment area of Cauvery River, southern India. Sedimentary Geology, V 143, 169-184.

4. **Anupam Sharma***, Sarajit Sensarma, Kamlesh Kumar, P.P. Khanna, N.K. Saini (2013) Mineralogy and Geochemistry of the Mahi River sediments in tectonically active western India: Implications for Deccan large igneous province source, weathering and mobility of elements in a semi-arid climate. Geochimica et Cosmochimica Acta, 104, 63-83.

5. **Anupam Sharma***, Kamlesh Kumar, Amzad Laskar, Sunil Kumar Singh, Pankaj Mehta 2017.Oxygen, deuterium, and strontium isotope characteristics of the Indus River water system. Geomorphology, 284, 5-16.

6. Meenakshi Hira, Sudesh Yadav, P. Morthekai, Anurag Linda, Sushil Kumar, **Anupam Sharma*** (2018). Mobile Phones—An asset or a liability: A study based on characterization and assessment of metals in waste mobile phone components using leaching tests. Journal of Hazardous materials, 342. 29-40.

7. **Anupam Sharma***, Binita Phartiyal, 2018. Late Quaternary Palaeoclimate and Contemporary Moisture Source to Extreme NW India: A Review on Present Understanding and Future Perspectives. Front. in Earth Sci. 6:150.

8. Farooqui S, Shah A P, Maurya D M, Archna G, Ali S N, **Sharma A*.** 2021. Texture, mineralogy and geochemistry of late Quaternary sediments of the Mahi River basin, western India: Implications to climate and tectonics. Applied Geochemistry 134, 105088.

9. Amritpal Singh Chaddha, Narendra Kumar Singh*, Manisha Malviya and **Anupam Sharma*** 2022. Birnessite-clay mineral couple in the rock varnish: a nature's electrocatalyst. Sustainable Energy Fuels, Royal Society of Chemistry, 6, 2553–2569.

10. Shekhar M, **Sharma A***, Dimri A P, Tandon S. 2022. Asian summer monsoon variability, global teleconnections, and dynamics during the last 1,000 years. Earth-Science Reviews 230(5):104041

***Refers to the corresponding author**

❖ **ENTIRE LIST OF PUBLICATIONS IN VARIOUS SCI JOURNALS (80 Articles)-**

1. **Anupam Sharma** and V. Rajamani. 2000. Weathering of gneisses in the upper reaches of Cauvery River, south India: implications to neotectonics of the region. **Chemical Geology** V 166, 203-223.

2. **Anupam Sharma** and V. Rajamani. 2000. Major element, REE and other trace element behavior in amphibolite weathering under semi-arid conditions south India. **The Journal of Geology** V 108, No. 4, 487-497.

3. **Anupam Sharma** and V Rajamani. 2000. Weathering of amphibolite and mobility of elements under semi-arid conditions, southern India. **Geochimica et Cosmochimica Acta**, 5 (2), 913.

4. **Anupam Sharma** and V. Rajamani. 2001. Weathering of charnockites and sediment production in the catchment area of Cauvery River, southern India. **Sedimentary Geology**, V 143, 169-184.

5. Binita Phartiyal, **Anupam Sharma**, Rajeev Upadhyay, Ram-Awatar and Anshu K. Sinha. 2005. Quaternary geology, tectonics and distribution of palaeo- and present fluvio/glacio lacustrine deposits in Ladakh, NW Indian Himalaya- study based on field observations. **Geomorphology** V65/3-4, 241-256.

6. Vandana Prasad, Binita Phartiyal and **Anupam Sharma**. 2007. Evidence of abrupt winter monsoonal activity in the Late-Mid Holocene in Gujarat. **The Holocene**, V 17, No. 7, 889-896.

7. Sudesh Yadav, M. S. Chauhan and **Anupam Sharma**. 2007. Characterization of bio-aerosols during dust storm period in N-NW India. **Atmospheric Environment**, V 41, 6063-6073.

8. S. K. Paul., Ram-Awatar, R. C. Mehrotra, **A. Sharma**, B. Phartiyal and Dorjey, C. P. 2007.A new fossil palm leaves from the Hemis Formation of Ladakh, Jammu and Kashmir, India. **Current Science** V 92(6), 727-729.

9. R. C. Mehrotra, Ram-Awatar, **A. Sharma**, Binita. Phartiyal. 2007. A new palm leaf from the Indus Suture Zone, Ladakh Himalaya, India. **Journal of the Palaeontological Society of India** V 52(2), 159-162.

10. Binita Phartiyal, **Anupam Sharma**, Pradeep Srivastava, and Yogesh Ray. 2009. Chronology of relict lake deposits in the Spiti River, NW Trans Himalaya: Implications to Late Pleistocene–Holocene climate-tectonic perturbations. **Geomorphology**, Vol. 108, 264–272.

11. Binita Phartiyal and **Anupam Sharma**. 2009. Soft-sediment deformation structures in the Late Quaternary sediments of Ladakh: Evidence for multiple phases of seismic tremors in the North western Himalayan Region. **Journal of Asian Earth Sciences**, Vol. 34, 761–770.

12. Binita Phartiyal, Pradeep Srivastava and **Anupam Sharma**. 2009. Tectono-Climatic signatures during late Quaternary Period from Upper Spiti Valley, NW Himalaya, India. **Himalayan Geology**, Vol. 30 (2), 167-174.

13. Binita Phartiyal, **Anupam Sharma** and S. K. Bera. 2011. Glacial Lakes and geomorphological evolution of Schirmacher Oasis, East Antarctica, during Late Quaternary. **Quaternary International**, 235, 128-136.

14. K K Agarwal, **Anupam Sharma**, Nigar Jahan, Chandra Prakash and Amar Agarwal. 2011. Occurrence of pseudotachylites in the vicinity of South Almora Thrust Zone, Kumaun Lesser Himalaya. **Current Science**, 101, 431-434.

15. **Anupam Sharma**, Kamlesh Kumar, Vandana Prasad, and Biswajeet Thakur. 2011. Diatom distribution and their relationship with water quality in the Mahi River Basin. **Current Science**, 101, 1011-1015.

16. **Anupam Sharma**, Abhay Kumar Singh, and Kamlesh Kumar. 2012. Environmental Geochemistry and Quality Assessment of Surface and Subsurface Water of Mahi River Basin, Western India. **Environmental Earth Science**, 65, 1231-1250.

17. Anjali Trivedi, M. S. Chauhan, **Anupam Sharma**, C.M. Nautiyal and D. P. Tiwari. 2012. Late Pleistocene–Holocene vegetation and climate change in the Central Ganga Plain: a multiproxy study from Jalesar Tal, Unnao District, Uttar Pradesh.**Current Science**, 103, No. 05, 555-562.

18. S. K. Bera, Binita Phartiyal and **Anupam Sharma**. 2012. Evidence of pollen – spores retrieved from lichen patches distributed in Schirmacher oasis and adjacent nunataks, East Antarctica: a case study of pollen transport over polar region. **International Journal of Earth Sciences & Engineering**, 5, 724-730.

19. **Anupam Sharma**, SarajitSensarma, Kamlesh Kumar, P.P. Khanna, N.K. Saini. 2013. Mineralogy and Geochemistry of the Mahi River sediments in tectonically active western India: Implications for Deccan large igneous province source, weathering and mobility of elements in a semi-arid climate. **Geochimica et Cosmochimica Acta** 104, 63-83.

20. Anjali Trivedi, MS Chauhan, **Anupam Sharma**, CM Nautiyal, DP Tiwari (2013). Record of vegetation and climate during Late Pleistocene–Holocene in Central Ganga Plain, based on multiproxy data from Jalesar Lake, Uttar Pradesh, India. **Quaternary International**, 306, 97-106.

21. MS Chauhan, **Anupam Sharma**, Binita Phartiyal, Kamlesh Kumar. 2013. Holocene vegetation and climatic variations in Central India: A study based on multiproxy evidences. **Journal of Asian Earth Sciences**. 77, 45-58.

22. Pradeep Srivastava, Yogesh Ray, Binita Phartiyal, **Anupam Sharma**. 2013. Late Pleistocene-Holocene morphosedimentary architecture, Spiti River, arid higher Himalaya. **International Journal of Earth Sciences**, 102, 1967-1984.

23. M.S Chauhan, Kamlesh Kumar, M. F Quamar**, Anupam Sharma**. 2013. Correlation of data on loss-on-ignition and palynology for Late Quaternary climate change in southwestern Madhya Pradesh, India. **Current Science**, 104, 299-301.

24. Binita Phartiyal, **Anupam Sharma** and Girish Ch Kothyari. 2013. Damming of River Indus during Late Quaternary in Ladakh Region of Trans-Himalaya, NW India: Implications to Lake formation-climate and tectonics. **Chinese Science Bulletin**, 58 (1), 142-155.

25. M. S. Chauhan, Anjali Trivedi, and **Anupam Sharma**. 2013. Pollen analysis of multifloral honey from Lucknow, Uttar Pradesh, India. **Phytomorphology** (3&4), 133-141.

26. Vandana Prasad, Anjum Farooqui, **Anupam Sharma**, Binita Phartiyal, Supriyo Chakraborty, Subhash Bhandari, Rachna Raj, Abha Singh. 2014. Mid–late Holocene monsoonal variations from mainland Gujarat, India: A multi-proxy study for evaluating climate culture relationship. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 397, 38-51.

27. Alpa Sridhar*, Amzad Laskar, Vandana Prasad, **Anupam Sharma**, Jayant Tripathi, D. Balaji, D.M. Maurya, L.S. Chamyal. 2015. Late Holocene flooding history of a tropical river in western India in response to southwest monsoon fluctuations: A multi proxy study from lower Narmada valley. **Quaternary International**, 371, 181-190.

28. Anju Saxena*, Anjali Trivedi, M.S. Chauhan, **Anupam Sharma**. 2015. Holocene vegetation and climate change in Central Ganga Plain: A study based on multiproxy records from Chaudhary-Ka-Tal, Raebareli District, Uttar Pradesh, India. **Quaternary International**, 371, 164-174.

29. Rachna Raj, L.S. Chamyal, Vandana Prasad, **Anupam Sharma**, Jayant K. Tripathi, Poonam Verma (2015) Holocene climatic fluctuations in the Gujarat Alluvial Plains based on a multiproxy study of the Pariyaj Lake archive, western India. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 421, 60-74.

30. M.F. Quamar, S. Nawaz Ali, Binita Phartiyal, P. Morthekai and **Anupam Sharma***. 2016. Recovery of palynomorphs from the high-altitude cold desert of Ladakh, NW India: An aerobiological perspective. **Geophytology** 46(1): 67-73.

31. **Anupam Sharma**, Kamlesh Kumar, Amzad Laskar, Sunil Kumar Singh, Pankaj Mehta. 2017. Oxygen, deuterium, and strontium isotope characteristics of the Indus River water system. **Geomorphology**, 284, 5-16.

32. M.K. Shukla, **Anupam Sharma**. 2017. Petrogenesis and mineral characteristics of the oldest volcanogenic breccia unit from the Himalayan foreland basin, India. **GeoResJ**, 13: 27–37.;

33. Kamlesh Kumar, Rajni Tewari, Deepa Agnihotri, **Anupam Sharma**, Sundeep K. Pandita, Suresh S.K. Pillai, Vartika Singh, Ghulam D. Bhat. 2017. Geochemistry of the Permian-Triassic sequences of the Guryul Ravine section, Jammu and Kashmir, India: Implications for oceanic redox conditions. **GeoResJ** 13 (2017) 114-125.

34. Jyotsna Dubey, Ruby Ghosh, Shailesh Agrawal, MF Quamar, P Morthekai, RK Sharma, **Anupam Sharma**, Pratima Pandey, Vaibhava Srivastava and Sheikh Nawaz Ali. 2017. Characteristics of modern biotic data and their relationship to vegetation of the Alpine zone of Chopta valley, North Sikkim, India: Implications for palaeovegetation reconstruction. **The Holocene**. 28, 363-376.

35. Meenakshi Hira, Sudesh Yadav, P. Morthekai, Anurag Linda, Sushil Kumar, **Anupam Sharma***. 2018. Mobile Phones—An asset or a liability: A study based on characterization and assessment of metals in waste mobile phone components using leaching tests. **Journal of Hazardous materials**, 342. 29-40.

36. Mu. Ramkumar, M. Santosh, Nagarajan Ramasamy, S.S. Li, Manoj Mathew, David Menier, **Anupam Sharma**, Numair Siddiqui, vandana Prasad, M.C. Poppelreiter, S. Farroqui, Jonathan Lai, J. Rai. 2018. Late Middle Miocene volcanism in Northwest Borneo, Southeast Asia: Implications for tectonics, paleoclimate and stratigraphic marker. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 490, 141-162.

37. V. Prasad, T. Utescherb, **A. Sharma**, I.B. Singh, R. Garg, B. Gogoi, J. Srivastava, P.R. Uddandam, M.M. Joachimski. 2018. Low-latitude vegetation and climate dynamics at the Paleocene-Eocene transition – A study based on multiple proxies from the Jathang section in northeastern India. **Palaeogeography, Palaeoclimatology, Palaeoecology**,497, 139-156.

38. Matsyendra Kumar Shukla, **Anupam Sharma**. 2018. A brief review on breccia: it's contrasting origin and diagnostic signatures. **Solid Earth Science**, 3, 50-59.

39. Sheikh Nawaz Ali, Jyotsna Dubey, Ruby Ghosh, M Firoze Quamar, **Anupam Sharma**, P Morthekai, A P Dimri, Mayank Shekhar, Md. Arif and Shailesh Agrawal. 2018. High frequency abrupt shifts in the Indian summer monsoon since Younger Dryas in the Himalaya. **Nature Scientific Report**.

40. Ruby Ghosh, Oindrila Biswas, Dipak Kumar Paruya, Shailesh Agrawal, **Anupam Sharma**, C.M. Nautiyal, Meghma Bera, Subir Bera. 2018. Hydroclimatic variability and corresponding vegetation response in the Darjeeling Himalaya, India over the past ~2400 years. Catena, 170, 84-99.

41. S. Nawaz Ali, Biswajeet Thakur, P. Morthekai, Shazi Farooqui, Binita Phartiyal, Priyanka Seth, **Anupam Sharma***. 2018. Diatom diversity under extreme climate: a study from Zanskar Valley, NW Himalaya, India. **Journal of the Palaeontological Society of India** 63(1), 119-126.

42. Matsyendra Kumar Shukla, **Anupam Sharma**. 2018. Carbon isotope and REE characteristics of the Paleocene–Eocene shallow marine Subathu formation from the NW Himalaya (India) and their paleoenvironmental implications. **Chemie der Erde** 78, 314–322.

43. S. Nawaz Ali, M. Firoze Quamar, Binita Phartiyal, **Anupam Sharma**, 2018. Need for Permafrost Researches in Indian Himalaya. **Journal of Climate Change**, 4, No. 1., 33-36.

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48. Shazi Farooqui and **Anupam Sharma**. 2017. Texture characteristics and depositional environment of the lower Mahi River sediment, Mainland Gujarat, India. **XXVI Indian Colloquium on Micropaleontology and Stratigraphy (ICMS-2017)**. University of Madras, Guindy Campus, Chennai. 17-19 August. pp. 149-150.

49. Harshita Srivastava and **Anupam Sharma**. 2019. Mineralogy and Geochemistry of the Late Quaternary Palaeolakes sequences of the Ladakh region, NW India. **3rd National Geo-Research Scholars Meet.** WIHG, Dehradun, India. 6-8 June. pp. 23.

50. Mukesh Yadav, **Anupam Sharma**, Uma Kant Shukla. 2020. Geochemical Study of Cliff Sediments from the Central Ganga Plain: Implications on Paleoclimate and Depositional History. **Goldschmidt 2020**. Virtual. 21-26 June.

51. Ishwar Chandra Rahi, **Anupam Sharma**, Amiya Shankar Naik. 2020. Mo-Ni, Organic Carbon Isotope and Rare Earth Elements Signatures of the Paleogene Deposit from the Barmer Basin Western Rajasthan, India. **Goldschmidt 2020**. Virtual. 21-26 June.

52. AP Chaddha, **Anupam Sharma**, NK Singh. 2021. Rock varnish: Potential future product. **American Chemical Society (ACS) Spring 2021**. Virtual. 5-16 April.

53. Amrit Pal Singh Chaddha, **Anupam Sharma**, Narendra K Singh, Niraj Rai. 2021. Geochemical Study of Cliff Sediments from the Central Ganga Plain: Implications on Paleoclimate and Depositional History. **Goldschmidt 2021**. Virtual. 4-9 July.

54. Amrit Pal Singh Chaddha, **Anupam Sharma**, Narendra K Singh, Niraj Rai. 2021. Biogeochemical Signatures of Early Life in Extremes of Cold Arid Region Ladakh, India: Insights from Rock Varnish Study. **AGU Fall Meeting 2021**. New Orleans, LA & Online Everywhere. 13-17 December.

55. Piyal Halder, **Anupam Sharma**, Matsyendra Kumar Shukla, Kamlesh Kumar. 2021. Geochemical Analysis of Major Elements and Quantification of Weathering in Intrabasaltic Deccan Red Bole from Southern Maharashtra. 2021. Abstract Volume of **National Seminar on Recent Advances in Geoscience Research in India**, University of Delhi, Delhi. 1-2 July. pp. 24.

56. Piyal Halder, **Anupam Sharma**, Kamlesh Kumar, Matsyendra Kumar Shukla. 2021. Mechanism of Fluid rock interaction at shallow Crustal level due to anthropogenic activity in Koyna Seismogenic region of Indian Subcontinent. **Student Colloquium, Association of Quaternary Researchers**. 2-3 July.

57. Piyal Halder, Matsyendra Kumar Shukla, **Anupam Sharma**, Kamlesh Kumar. 2021. Mesoscopic observations of fluid-rock interaction at the pre-Deccan Basement rocks up to 1500 m depth in the Koyna Intraplate Seismogenic Zone of India. Abstract Volume of **International Symposium on Geofluids**, Hungary. 7-9 July. pp. 25.

58. Piyal Halder, Matsyendra Kumar Shukla, Kamlesh Kumar, **Anupam Sharma**. 2021 Mineralogical and geochemical evidence of fluid-rock interaction at the shallow crustal level in Koyna Seismogenic Region, Maharashtra, India: Impact and implications**. International Symposium on Deep Earth Exploration and Practices (DEEP-2021)**. Nanjing, China. 26-31 October.

59. Sagar R, Kapur VV, Kumar K, Morthekai P, **Sharma A**, Chauhan G and Thakkar MG. 2021. Preliminary data on coprolites from the Neogene (Miocene: Aquitanian–Burdigalian) Khari Nadi and Chassra formations, Kutch Basin, western India. **Online NECLIME international conference**. 7-9 September. pp. 43-44.

60. Piyal Halder, **Anupam Sharma**, Matsyendra Kumar Shukla and Kamlesh Kumar. 2022. Mechanisms of secondary mineralization at shallow crustal depths of the Koyna Seismogenic region, Maharashtra, India and its significance. **Goldschmidt 2022**. Hawaii, USA, 10-15 July.

61. Ishwar Chandra Rahi, **Anupam Sharma**, Sajid Ali, Vandana Prasad and Amiya Shankar Naik. 2022. Palaeocene-Eocene Thermal Maximum continental sediments in the Barmer Basin, Rajasthan, India: A record of enhanced precipitation in South Asia. **Goldschmidt 2022. Hawaii**, USA. 10-15 July.

62. Rimpy Chetia, Ishwar Chandra Rahi, Runcie Paul Mathews, **Anupam Sharma** and Prakash K. Singh. 2022. The geochemical documentation of redox conditions in Paleogene lignite deposit of Barsingsar, Bikaner-Nagaur Basin, western India. **Goldschmidt 2022**. Hawaii, USA. 10-15 July.

CITATION (Till 03/01/2023):

: 1480

: 1682

Google Scholar h-index: 23

Google Scholar i10-index: 38

LECTURE SERIES DELIVERED:

1. Special Lecture on Significance of Geochemical tool in Quaternary sediment characterization: implications to palaeoclimatic studies;

2. Techniques used in the Sediment/soil texture, Mineralogical and Geochemical studies with special reference to provenance, paleoenvironment and palaeoclimatic research;

3. Special lecture on the Role of Geochemistry in understanding the Quaternary Palaeoclimatic records and training on various instrumentation techniques;

4. Special lecture on Role of Geochemistry in Palaeobotanical studies;

5. Expert lecture entitled 'Mother Earth" in the refresher course for teachers organized by Govt. College Dharamshala on Sept. 06, 2014;

6. Expert lecture entitled 'Mother Earth" in the senior level teachers training organized by Govt. College Dharamshala on Dec. 17, 2014;

7. Expert lecture entitled 'ICP-MS technique" under internal lecture series program on May 09, 2014 at Birbal Sahni Institute of Palaeobotany, Lucknow;

8. Lecture on Challenges in estimation of Upper continental Crust (UCC) composition and geochemical cycling of elements in National Conference on Biogeochemical Cycles and Climate Change, on 10-11 August 2018, at IIT(ISM), Dhanbad.

9. Invited lecture on Upper Continental Crust (UCC) composition and geochemical cycling of elements: present challenges and future perspective, on Sept. 14, 2018, at the Chemistry department of Integral University, Lucknow.

10. Resource Person lecture in online Refresher Course on Disaster Management entitled "Earthquake- A way of the mother earth to release stress with a special reference to Reservoir Triggered Seismicity in Koyna,

Maharashtra, on Aug. 08, 2022, at the Department of Geology, Kurukshetra University, Kurukshetra, in collaboration with UGC-Human Resource Development Centre.

11. Invited lecture entitled "Space and climate: a palaeoclimatic perspective" in a one-day regional seminar on the theme "Strategic aspects of disturbances in Akasha Tattva, like weather modification, space warfare, climate migration" as a part of “Akash for Life” National Space Event hosted by Indian Institute of Geomagnetism, New Panvel, Navi Mumbai, on Nov. 09, 2022.

PRIZES/MEDALS/AWARDS/HONOURS:

1. BSIP Medal – 2014 for carrying out the best piece of scientific work in the institute;

2. Third prize in the Best Poster Category of the National Conference on the Quaternary Climate Change: New Approaches and Emerging Challenges, organized by Birbal Sahni Institute of Palaeobotany, Lucknow during Dec. 15-16, 2015;

3. Shri Chandra Dutt Pant Medal – 2008 of BSIP, Lucknow adjudged the best scientist among scientists of scientist C category of the institute;

4. Team Medal - 2008 of BSIP, Lucknow for carrying out the best piece of scientific work in the institute as a team;

5. Certificate and a memento for participating in the 26th Indian Scientific Expedition to Antarctica during the debriefing function at India International Centre, Goa organized by NCAOR, Goa;

6. Third prize in the Best Poster Award, 2007; in Geocollision 2007; a national workshop held in Wadia Institute of Himalayan Geology, Dehradun, India during 20th-21st September, 2007;

7. D. N. Wadia best poster “Palaeoclimatic importance of the Quaternary deposits of Ladakh, NW Himalayas; Khalsar palaeolake a case study” award at International Conference “Geo-environment-challenges ahead” Jammu, India, in 2007;

8. Member, 2nd Indian Arctic Scientific Expedition 2008, conducted by National Center for Antarctic and Ocean Research, Goa, Ministry of Earth Sciences, India;

9. Member, 26th Indian Antarctic Scientific Expedition 2006-2007, conducted by National Center for Antarctic and Ocean Research, Goa (Ministry of Earth Sciences, India). Member, 2nd Indian Arctic Scientific Expedition 2008, conducted by National Center for Antarctic and Ocean Research, Goa, Ministry of Earth Sciences, India.

10. An appreciation certificate by the Team Leader at Maitri, Antarctica for exemplary work;

11. Trainee Award 2006 by ITBP, Auli for the 26th Indian Antarctica Scientific expedition pre-training and acclimatization course;

12. Research Associateship of CSIR, 1997-2001.

PROFESSIONAL MEMBERSHIP

1. Life Member, Paleontological Society of India;
2. Life Member, The Palaeobotanical Society
3. Member, Geochemical Society, USA;
4. Life Member, Himalayan Geology, India;
5. Life Member, Indian Science Congress;
6. Member, Association of Quaternary Researchers (AOQR);

SPECIAL TRAINING & COURSES:

1. 5-months Certificate course in Art Appreciation from National Museum Institute of History of Art, Conservation and Museology, New Delhi;

2. DST sponsored training Programme on Fluvial Systems organized the Dept. of Geology, MS University of Baroda from 16-25 Nov., 2004;

3. A two weeks training on Clay Mineral separation and identification techniques, National Bureau of Soil Survey & Land Use Planning, Nagpur, India during June, 2005;

4. Brain Storming Workshop on Palaeoclimate sponsored by DST, New Delhi and organized by Dept. of Geography, Pune University, Pune during 25-27 November 2005;

5. A two weeks special training on mountaineering and challenges of glacial regions obtained from the Mountaineering and Skiing institute of ITBP at Auli, Uttarakhand prior to proceeding for Indian Expedition to Antarctica during 15-25 September 2006;

6. One-week training on SEM technique, organized by BSIP, Lucknow;

7. Shooting certificate Course at Ny-Alesund (the must requirement prior to step outside the campus area for fieldwork to avoid Polar Beer threat) during June-July 2008 Arctic Expedition;

8. One-week training Programme on Sequence Stratigraphy, jointly organized by the Paleontological Society of India and Birbal Sahni Institute of Palaeobotany, held at BSIP, Lucknow during October 3-11, 2009.

FOREIGN VISITS FOR SCIENTIFIC RESEARCH:

Country Visited	Duration	Purpose
United Kingdom	Sept. 2000	Goldschmidt Conference, 2000.
South Africa	November 2006	On way to Antarctica in the 26th Indian Antarctic Scientific Expedition 2006-2007
Antarctica	Nov. 2006 – April 2007	Fieldwork in the Schirmacher Oasis and Larsemann Hills of East Antarctica

Mauritius	March 2007	Returning from Antarctica after the 26th IASE 2006-2007
Arctic	June-July 2010	Fieldwork at Ny-Alesund, Svalbard, Norway
United States of America	8-13 June, 2014	Goldschmidt Conference, 2014

SUMMARY OF PROFESSIONAL CAREER AND RESEARCH VISION

In my more than 30 years of research career, I have extensively worked on several aspects of Geochemistry in hard rocks as well as in soils, sediments and water. My research works particularly during last 10 years has focussed on the application of geochemistry in paleoclimatic and paleoenvironmental reconstruction not only within the boundary of Indian Subcontinent but also extended to the Antarctic and Arctic regions.

- The Ladakh and Lahaul-Spiti regions have vast exposures of Quaternary sediments, however, establishing the chronology by both radiocarbon and luminescence techniques is quite challenging because of extremely low carbon content, hard water effect, and poor bleaching of samples respectively. Therefore, all the studies so far carried out in the region on palaeoclimate become questionable where our extensive research work has pointed out this not only very emphatically but also working seriously and inching close in resolving the issue. Additionally, the Ladakh is the region falling under the westerly winds bringing the moisture; however, based on the Indus River water and meltwater isotopic study, I along with my intellectual research team have been able to establish that the monsoon has a major role in precipitation.

- The collaborative work on the Quaternary sedimentary records of Mainland-Gujarat has resulted in establishing the climate culture relationship wherein they emphasized that deteriorating climatic conditions forced the Harappan civilization to migrate further east from their original position. Under the multiproxy-based DST-sponsored project on Quaternary exposures of the Mahi River catchment, we have confirmed that climate and tectonics are the major drivers and a major part of the sediment is supplied through the weathering of the Deccan basalt with complementary contributions received from the Aravallis upland.

So, the research work on the Quaternary sediments of Ladakh, Lahaul-Spiti, and Mainland Gujarat has not only resolved the issues pertaining to role of monsoon in precipitation but also established the climate culture relationship.

- On the other hand, the work on the Antarctica lake sediments has provided climatic data for the last 8,000 years BP. The palaeoclimatic study conducted on Priyadarshini and Long Lake reflects arid-warm and humid climatic conditions intermittently and their potentiality to yield more dependable palaeoclimatic data.

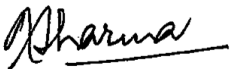
- Besides, the research work carried out on Bio-investigations for pollen and spores on dry free-fall dust and PM10 aerosol samples collected from the dust storm hit region of N–NW India has that the

presence of Nigrospora fungal spores which can be considered as the root cause of several health problems. As far as the source of aerosols is concerned these are derived from a mixed source from the Thar Desert and Himalayan regions.

- Along with these mainstream research activities, I have worked proactively and successful in setting up a state of the art geochemical and TL/OSL laboratory in the institute hosting several sophisticated instruments such as ICP-MS, ICP-OES, XRF, XRD, FE-SEM, Raman, GCMS, Micro-FTIR and multiple IRMS, which has not only enhanced the research output (both in terms of quality and quantity) of the institute but also supporting academia and industry through consultancy services. I am also happy to state that though this facility is only 5-6 years old, however, it is able generating maximum funds amongst all facilities of institute since it became functional.

I hereby declare that the information given above is correct and no relevant information has been concealed.

Last updated on 3rd January, 2023



Anupam Sharma
Scientist G, BSIP, Lucknow