Abhinay Sharma

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Present Address:

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Research Specialisation and Interest: I am basically an igneous petrologist and geochemist and my research specially focuses on the petrogenetic aspects of small-volume potassic to highly potassic rocks such as kimberlites, lamproites, lamprophyres, their entrained xenoliths and ultramafic rocks such as komatiites, pyroxenites and peridotites. I use mineralogy, geochemistry and isotopic signatures of magmatic rocks as a proxy to probe into the earth's mantle and infer their tectonic settings and source region characteristics. I am particularly interested in their role in unravelling the large-scale geodynamic processes of Indian shield including the composition and secular evolution of its sub-continental lithospheric mantle. I also have a keen interest to decipher the complex processes occurring within magmatic chambers formed through pooling of magma along its path of cooling to final solidification.

Teaching Interest: Igneous Petrology, Geochemistry, Mineralogy and Stratigraphy

Academic Qualifications:

S.No.	Degree	Subject	Class/CGP/Marks	Year	University/School
1.	10th	Science	85%	2008	S.T. Teresa's School, Joda
2.	Intermediate	Math, Phy, Chem, Stats	74.5%	2008-2010	M P C Junior College Baripada
3.	B.Sc (Hons)	Geology	73.2%	2010-2013	North Orissa University
4.	M.Sc	Geology	84.5%	2013-2016	Banaras Hindu University
5.	Ph.D	Petrology and Geochemistry of ultramafic rocks from the Wajrakarur kimberlite field and Gurramkonda area of Eastern Dharwar Craton, Southern India. Supervisor:Prof:-N. V. Chalapathi Rao		2016-2020	Banaras Hindu University
6.	Post-doc	Petro-geochemistry and Sr-Nd isotopes of Padhar mafic-ultramafic complex from Betul Belt, Central India: Implications on petrogenesis, mineralisation potential and geodynamic evolution of Central Indian Tectonic Zone Supervisor: Dr. Anil Dutt Shukla		22 March 2021- 28 Feb 2022	Physical research Laboratory, Ahmedabad

Positions Held:

Sl. No.	Period	Place of Employment	Designation	Scale of Pay
1.	March 2022-continuing	Ravenshaw University, Cuttack, Odisha	Assistant Professor	57,700; Level 10, cell-1 at the joining time and currently at 63,000 Level 10, cell-4

Technical Skills:

Can operate EPMA, SEM, ICPMS and know Operating software like Corel draw,

Award/Academic Achievements:

1. Qualified joint CSIR-UGC NET JRF (June 2015) AIR-28
2. Qualified Gate 2016.
3. Summer intern at Directorate General of Hydrocarbon, Delhi

4. Received the ANRF-ITS grant to attend the Goldschmidt-2025
5. Received the Goldschmidt-2025 Travel Grant to attend the conference

Professional Activities:

Reviewer of Ore geology Reviews, Geological Journal, Geological society of London special publication, Current Science, Journal of Geological society of India, Journal of Earth System Sciences.

Publications:

1. R. B. Ananth, N. V. Chalapathi Rao, **Abhinay Sharma**, J. Amal Dev, J.K. Tomson (2025) Glimmerite and melteigite xenoliths from the Early Cretaceous Campto-tinguaite dyke, Nongchram Fault Zone (East Garo Hills), Shillong Plateau, North East India: Evidence for magma mixing and involvement of subducted as well as plume related mantle sources. Geochemical journal: GJ25014. https://doi.org/10.2343/geochemj.GJ25014

2. Mahendra Kumar Singh, Rohit Pandey, **Abhinay Sharma**, N. V. Chalapathi Rao (2022) Petrology and geochemistry of the diamondiferous Jamnidih occurrence, Bastar Craton, Central India: Metabasalt and not a kimberlite. Geosystems and Geoenviornment. V. 1 (4), 100020. https://doi.org/10.1016/j.geogeo.2021.100020
3. Sneha Raghuvanshi, N. V. Chalapathi Rao, Debojit Talukdar, **Abhinay Sharma**, Rohit Pandey (2022) Chrome-diospide xenocryst entrained in a Neoproterozoic lamprophyre dykefrom the Mysuru area: Their origin and implications for lithospheric thickness beneath the Western Dharwar Craton, Southern India., Journal of the Geological Society of India v. 98, pp. 23-34. https://doi.org/10.1007/s12594-022-1923-3 (Impact factor: 1.5)

4. **Abhinay Sharma**, Rohit pandey, N. V. Chalapathi Rao, Samrendra Sahoo, B. Belyatsky, Prashant Dhote (2021) Mineralogy and petrology of lamprophyre and dolerite dykes from the end-Cretaceous (~66 Ma) Phenaimata alkaline igneous complex, north-western India: evidence for open magma chamber fractionation, mafc recharge, and disaggregation of crystal mush zone in a large igneous province. Mineralogy and Petrology. https://doi.org/10.1007/s00710-021-00770-y (Impact Factor: 1.1)

5. **Abhinay Sharma**, Samrendra Sahoo, N. V. Chalapathi Rao, B. Belyatsky, Prashant Dhote, Bernd Lehmann (2021) Petrology and Sr-Nd isotope geochemistry of alkaline lamprophyres from the Early to Late Cretaceous, Mundwara alkaline complex, NW India: Evidences for crystal fractionation, accumulation and complex magma chamber plumbing system. Journal of Geological Society of London Special Publication, 513, DOI: https://doi.org/10.1144/SP513-2020-175 (Impact factor: 3.0)

6. N. V. Chalapathi Rao, Rohit Kumar Giri, **Abhinay Sharma** and Ashutosh Pandey (2020) Lamprophyres from the Indian shield: A review of their occurrence, petrology, tectonomagmatic significance and relationship with the Kimberlites and related rocks. Episodes Journal of International Geoscience, v. 43(1), pp. 231-248. (Impact factor: 2.2)

7. **Abhinay Sharma**, Rohit Kumar Giri, N. V. Chalapathi Rao, Waliur Rahaman, D.Pandit and S.Sahoo (2019) Arc-related pyroxenites derived from a long-lived subduction system of Neoarchaean age at the SW margin of the Cuddapah basin: Geodynamic implications for the evolution of the Eastern Dharwar Craton, southern India. Journal of Geology, v. 127(5), pp. 567-591. (Impact factor: 1.3)

8. **Abhinay Sharma**, Alok Kumar, P.Pankaj, D.Pandit, R.Chakrabarti and N. V. Chalapathi Rao (2019) Petrology and Sr-Nd isotope systematics of the Ahobil Kimberlite (Pipe-16) from the Wajrakarur field, Eastern Dharwar craton, southern India. Geoscience Frontiers, v. 10, pp. 1167-1186. (Impact factor: 8.9)

9. Deepak Kumar, Dinesh Pandit, **Abhinay Sharma** and N. V. Chalapathi Rao (2019) Boron measurement in tourmaline from pegmatite veins, Simdega area, Chhotanagpur Gneissic Complex, Eastern India using Electron Probe Microanalysis. Current Science, v. 117, pp. 858-865. (Impact factor: 1.0)

10. **Abhinay Sharma**, Deepak Kumar, Samarendra Sahoo, Dinesh Pandit, and N.V.Chalapathi Rao (2018) Chrome-diopside Megacryst-bearing Lamprophyre from the Late Cretaceous Mundwara Alkaline Complex, NW India: Petrological

and Geodynamic Implications. Journal of the Geological Society of India, v. 91(4), pp. 395-399. (Impact factor: 1.5)

Conference papers/posters:

1. Poster Presentation of paper titled “Processes of Magma Mixing and Trans-Lithospheric Magmatic Plumbing in End-Cretaceous (67 Ma) Lamprophyres from the Nirwandh Alkaline Complex, Kutch, Northwest India” at the Goldschmidt 2025 International Conference at Prague from 6-11 July 2025.
2. Oral Presentation of paper titled “Magma Mixing and Trans lithospheric magmatic plumbing system processes in the end-Cretaceous (67 My) lamprophyres from the Nirwandh alkaline complex, Kutch, Northwest India” at Magmatism, Metamorphism & Metallogeny organised by Natonal Centre for Earth Science Studies, Thiruvananthapuram from 16-18 February 2025.
3. Poster presentation of paper titled “Petrology of ultramafic-mafic suite of rocks from the Asanbani and Purnapani areas of Singhbhum Craton, Eastern India” at Odisha Research Conclave -2025 organised by Fakir Mohan University, Balasore from 26-28th December 2024
4. Oral Presentation of paper titled “The role of magma mixing in the petrogenesis of lamprophyres from the Nirwandh alkaline complex, Kutch, Northwest India” at the Deccan Next Conference Organised by Savitribai Phule Pune University, Pune from 1st to 3rd October 2023.
5. Oral presentation of paper tiled “Zoned crystal cargos in alkaline mafic dykes: evidences for magma chamber plumbing system beneath the Deccan LIP, NW India” at the Goldschmidt 2022 International Conference at Honolulu, Hawai‘i, USA from 10-15 July 2022
6. Oral Presentation of paper titled “Zoned crystal records of open magma chamber fractionation, mafic recharge, remobilization of crystal mush zone in LIPs: Insights from the lamprophyres and dolerites of end-Cretaceous (ca. 66 Ma) Phenaimata alkaline igneous complex” at Frontiers in Geoscience Research Conference (FGRC-2021) organised by Physical Research Laboratory, Ahmedabad from 27-09-2021 to 28-09-2021.
7. Oral Presentation of paper titled “Neoarchean convergence related evolution of the Eastern Dharwar Craton: Insights from the post-collision arc related pyroxenites at the SW margin of Cuddapah basin’’ at national conference on Advances in Mantle Petrology organised by Department of Geology, Institute

of science, Banaras Hindu University, Varanasi 221005 from 04-10-2018 to 06-10-2018.

8. Poster Presentation of paper titled “Petrogenesis and diamond prospectivity of the Ahobil kimberlite, Wajrakarur field, Eastern Dharwar Craton, Southern India: insights from mineralogy, bulk chemistry, and isotope systematic” at national conference on Recent Advances in Geophysics with Special Reference to Earthquake Seismology organised by CSIR-NGRI, Hyderabad, Telangana from 03-12-2017 to 07-12-2017.
9. Oral Presentation of paper titled “Petrogenesis of the Ahobil kimberlite, Wajrakarur field, Eastern Dharwar Craton, Southern India” at national conference on Recent Advances and Challenges in Geochemistry, Environmental and Sedimentary Geology organised by Department of Geology, Aligargh Muslim University, Aligargh (U.P), India on 27-02-2017.

Projects or other aspects of relevance:

1. Was awarded a research project titled “Petrological and geochemical appraisal of Tiring and Patharkata Komatiites from Badampahar Gorumahisani Greenstone Belt, Singhbhum Craton Eastern India” by Odisha State higher Education under the Scheme of OURIIP_SEED FUND 2022-224 for 5.25 lakhs.
2. Invited to deliver a talk on “Magma: From Mantle to Crust” by the Udayanath Autonomous College Of Science & Technology, Adaspur, Odisha 754011 (2025).

Referees:

1. Prof. N.V. Chalapathi Rao
   Director, National Centre for Earth Science Studies,
   Akkulam, Thiruvananthapuram, 695011
   Email id: nvcrao@bhu.ac.in

2. Prof. Saibal Gupta
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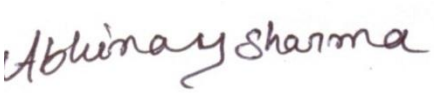

(Dr. Abhinay Sharma)