

Dr. Rohit Pandey
Assistant Professor (Stage II)

Mantle Petrology Lab,
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Research and Teaching Interest: *Igneous Petrology, Alkaline Rocks, Lamprophyres, Geodynamics, EPMA & SEM, Mineral chemistry, Xenoliths, Indian Geology.*

Work Experience and Education

From	To	Position	Institute Details	Degree/remarks
02.2020	Till present	Assistant Professor	Department of Geology, Banaras Hindu University (BHU), Varanasi, India	Teaching, Research, Lab and Administration
02.2026	ongoing	Visiting Researcher	Department of Geology, Trinity College Dublin, Ireland	Research and Lab work.
12.2023	01.2024	INSA Visiting Scientist	National Centre for Polar and Ocean Research (NCPOR) Goa	Research and Analytical work
04.2017	01.2020	Geo-Scientist	Geological Survey of India State Unit Telangana, Hyderabad.	Exploration, Mapping, Research
11.2014	04.2017	Doctoral student (PhD in Geology)	Department of Geology, Banaras Hindu University, Varanasi, India	Fellowship from <i>Council of Scientific & Industrial Research (CSIR), Indian Government.</i>
06.2014	11.2014	Doctoral student	Department of Earth Sciences, IIT Roorkee, India	<i>Institute fellowship through GATE</i>
06.2012	06.2014	Graduate student (Masters of Science in Geology)	The Maharaja Sayaji Rao University of Baroda, Vadodara, Gujarat, India	1st Division; Dissertation thesis: <i>Reported 1st alkaline igneous rock from Champaner Group, Gujarat, India</i>
06.2009	06.2012	Undergraduate student (Bachelor of Science in Geology)	Faculty of Science, Banaras Hindu University, Varanasi, India	1st Division; Geology (Hons.); Geography and Chemistry combination.

Teaching and Research Experience

2020- till date	Teaching: At undergraduate, post-graduate-level Igneous petrology, Indian Geology and Stratigraphy, Geochemistry, practical classes related to petrology and ore geology at Department of Geology, Banaras Hindu University.
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Research: Published **42 peer-reviewed research papers (36 in Q1/Q2)** and **3 book chapters** on various research problems related to alkaline rocks and xenoliths.

Ph.D. Supervision: Awarded One (2024); Mahendra K. Singh, Currently Project Scientist: Petrology and geochemistry of lamprophyres and mafic dykes from the Eastern Margin Bastar Craton, India

Submitted one (2026); Km. Minu Singh, Petrology and Geochemistry of alkaline dykes from kollapur area (Eastern Dharwar Craton), Chelima and Gooty areas (Cuddapah basin), Southern India

Ph.D. Supervision: Ongoing Six: 2 CSIR SRF; 1 UGC SRF; 1 UGC JRF; 2 external from GSI

Post Doc: Two; CSIR RA: Dr. Sirina Roy Chowdhary (2024-26): Petrogenesis of CGGC Granitoids; Raja Jwala Prasad Fellow: One

Post-Graduate Thesis Supervision: On alkaline rocks of Indian Shield, **Seven awarded.**

Lab experience: In-Charge **Electron Probe Micro Analyzer (EPMA) and Scanning Electron Microscopy (SEM)**; Handling, calibration, acquisitions of data, and results interpretations.

Technical Manager, IRMS Lab SATHI BHU

Research Fundings

2024-27 SERB-Core Research Grant, INR 62.5 Lac. Alkaline Mineralogy and geochemistry and carbonatite and rare earth mineralization, Deccan Large igneous Province.

2021-23 DST-SERB Start-up Grant; INR 21 Lac. Lamproites of Eastern Dharwar Craton. Focus on diamond prospectivity, supercontinent tectonics, and lithospheric mantle evolution in southern India

2021-24 UGC Start up grant; INR 10 Lac. Intrusives of Lower Gondwana basin P-T/K-Pg mass extinctions in eastern India

2020-23 Institute of Eminence Seed Grant Fund; INR 18 Lac. Alkaline rocks of Bastar Craton.

Professional activities

**2026
2025 Co-Convener:** GD1.3/2.3 | Geochemical and geodynamic perspectives on the origin and evolution of deep-seated mantle melts and their interaction with the lithosphere; GMPV7 – Advances in igneous petrology; **EGU-2026 and 2025.**

2023 Convener: Conference and Outreach Program Cutting Edge Research Frontiers in Earth System Science 2023; Indian Academy of Sciences and JESS.

2022 Co-Convener: Conducted a session on Alkaline magmatism and associated metallogeny in Large Igneous Provinces (Session 4a) of **Goldschmidt2022.**

2022-25 Scientific Outreach Program: Organization of Sir C. V. Raman Memorial Lectures, popular science lecture and workshop on various themes at Institute of Science, BHU; Invited talk on scientific communications: NASI Varanasi chapter (2023); How to write research manuscript: Suheldev University (2025).

2022-25 Invited talks and Resource Faculty: Geological Society of India, Scientific talk (2025); Brain storming workshop at NCESS Thiruvananthapuram (2024); On EPMA and its application, NGRI Hyderabad (2024); High-end instrumentation techniques (Karyashala-2023); IRMS 2 days training SATHI BHU (2024-2025); Technical Expert for Innovation for business upliftment and sustainability MSME Idea Hackathon by Atal Incubation Centre (2025).

2021-25 Administrative: Programme officer, National Service Scheme (NSS); Member: organizing committee, University and Institute convocations, Scholarship and Financial Aid, Science

Gallery, Foundation Day etc.

- 2019-20** Precious mineral project, **Mineral Exploration** of Base Metal and Gold Peddavura Schist belt. Dharwar Craton.
- 2018-19** Contributed one-year in baseline mapping **National Geochemical Mapping project** (NGCM).

Honors & Prizes

- 2026** **INSA Young Associate (Scientist) Award** in Earth and Environmental Science Section
- 2025-26** Early Career Scientist's Travel Support (**ECSTS**) by European Geosciences Union (**EGU**) **2025 and 2026.**
- 2023** **INSA Visiting Scientist** at National Centre for Polar and Ocean Research (NCPOR) Goa, India.
- 2022-24** International Travel Grant to attend Goldschmidt2022-2024 by SERB and CSIR.
- 2021** SERB Start-up Research Grant (**Early Career Research Award**) by DST-SERB, India
- 2017** **Best oral presentation** award in National Conference IESD, Banaras Hindu University, Varanasi, India
- 2016** Qualified **Geoscientist/Geologist examination** with All India Rank (AIR) 22, conducted by Union Public Service Commission (UPSC).
- 2015** Junior Research Fellowship (**JRF**) **Award** by Council of Scientific & Industrial Research (CSIR), India, with All India Rank (AIR) 30.
- 2014** **Best paper presentation award** at 5th all India Geo-youth symposium MLSU Udaipur, Rajasthan, India.
- 2014** Qualified Graduate Aptitude Test in Engineering (**GATE**) conducted by IITs with 370 Rank.

Reviewer and Editorial Roles

- 2025** **Coordinating Volume Editor (Lead)**, Geological Society London, Special Publications; Alkaline Rocks: Economic and Geodynamic Significance through Geological Time. Volume 551 <https://doi.org/10.1144/SP551-000>
- 2025** **Guest Editor, Geosystem Geoenvironment, Elsevier.** Special issue on Deep seated mantle magmas and their mantle xenoliths. <https://doi.org/10.1016/j.geogeo.2025.100388>
- 2020-** Journal of Petrology, Economic Geology, Precambrian Research, Lithos, Journal of the Geological Society, Gondwana Research, International Geology Review, Mineralogy and Petrology, Geological Journal, Scientific Reports, Journal of Geological Society of India, Journal of Earth System Sciences, Current Science etc.

Training and Workshop (Selection)

- 2025** One-week training on Nurture Future Leadership Training Program by IIT Kanpur.
- 2019** One-week field-based Mineral Exploration Training Program to Target Base Metals, Gold and Diamond, and other vital commodities at Wajrakarur Field Camp.
- 2017-18** **11-month field and lab-based orientation course and training** in Geological Survey of India Training Institute, Hyderabad, India.
- 2016** One week 16th PLANEX workshop on "Exploration of Inner Solar System Objects" was held at Physical Research Laboratory (PRL), Ahmedabad.
- 2015** One-week Geochronology course: Challenges and Possibilities Organized by Centre for Earth Sciences, Indian Institute of Science (IISc) Bengaluru.

Membership

Life member of the Geochemical Society, USA (502438); Member, European Geosciences Union 25, 26; Geological Society of India (F-3529; L-1986), Indian Science Congress (L-27322) and académique-a discussion group.

Conference and Symposia (Presented-recent)

2026	Mineralogical Society of UK and Ireland 150 th , Manchester, UK (Online)
2026	EGU2026, PICO presentation onsite at Vienna, Austria
2025	EGU2025, PICO presentation onsite at Vienna, Austria
2025	Magmatism, Metamorphism, Metallogeny; Oral presentation at NCESS Thiruvananthapuram, India.
2024	Goldschmidt2024; poster presentation in person at Chicago, USA.
2023	International Conference, Deccan-Next, Pune, India; Oral presentation.
2022	Goldschmidt2022; Oral presentation (Online).

Goggle Scholar Citation: ~537; H index 12; I10 index 12.
(<https://scholar.google.com/citations?user=GvDIhWsAAAAJ>)

List of publications: Rohit Pandey, Banaras Hindu University (BHU), India

A.) Publication with the peer review process

41. Chowdhury, M., Ray, J., Sarkar, D., Patel, S. C., Amal Dev, J., Koeberl, C., Dey, A., Ramakrishnan, D., **Pandey, R.**, & Mukherjee, P. Implications of Cryogenian magmatism in the light of evolutionary history of the Southern Granulite Terrane, Indian shield: a case study from Sholayar Alkaline Syenite Pluton. *Lithos.* 2026 ; 108667 <https://doi.org/10.1016/j.lithos.2026.108667> (Q1)
40. Sharma, A., **Pandey, R.**, Shukla, A.D., Dhote, P., Sahoo, S., Chalapathi Rao, N. V. Complexly zoned clinopyroxenes and amphiboles from the end-Cretaceous (67 My) co-genetic alkaline lamprophyres, Nir-Wandh Igneous Complex, NW Deccan Traps, India: Insights into the magma mixing and trans-lithospheric magmatic plumbing system processes. *Lithos.* 2026 ;(Q1)
39. Naskar, S[#], **Pandey, R***, Baumann, N. B., Chalapathi Rao, N. V., Mathew, G., Dev, Amal J., Tomson, J.K. Geochemical and Isotopic Constraints on long-lived Source Enrichment and Mantle Evolution in Paleoproterozoic Cratonic Lamprophyres. *Geochemistry, Geophysics, Geosystems.* 2026 27, 6 ; <https://doi.org/10.1029/2025GC012773> ;(Q1)
38. Banerjee, P., Chakravarti R., LaFlamme C., Ghosh, J., Latheef TP, A., Chattopadhyaya, S., **Pandey, R.**, Olin, P. Monitoring fluid evolution in the Lawa gold deposit, India: Insights from alteration mineralogy, sulfide geochemistry, and in-situ sulfur isotopic composition of pyrite. *Lithos.* 2026; 538-539, 108617 <https://doi.org/10.1016/j.lithos.2026.108617> ;(Q1)
37. Roy, J.K., Naik, A., Sahoo P.K., **Pandey R.**, Slámac, J., Słabyd, E., Bhattacharyaa, S. Tracing Fe and CO₂ Controls on Tungsten Mineralization in Granite-Greisen Systems: Insights from the Balda Prospect in NW India. *Lithos.* 2026; 528-529, 108478. <https://doi.org/10.1016/j.lithos.2026.108478>. ;(Q1)
36. Singh, M. K[#], **Pandey, R***, Debnath, S., Belyatsky, B., Chalapathi Rao, N. V., Dev, Amal J., Tomson, J.K. Geodynamic transition from Orogenic to Extensional setting recorded by the co-spatial Neoproterozoic and Mesoproterozoic lamprophyres from the Bastar Craton-Eastern Ghats Mobile Belt tectonic contact, India. *Precambrian Research.* 2026; <https://doi.org/10.1016/j.precamres.2026.108027> ;(Q1)
35. Singh, M. K[#], **Pandey, R***, Pandey, A., Chalapathi Rao, N. V., Belyatsky, B., Naskar, S., Singh, M. Role of crustal assimilation in the magmatic evolution of mafic dyke swarms: Petrological, geochemical, and Sr-Nd-Pb-Hf isotopic insights from the E-W and NNW trending Paleoproterozoic mafic dyke swarms of Bastar Craton, India. *Journal of*

- Asian Earth Science*. 2026; 301, 107982. <https://doi.org/10.1016/j.jseaes.2026.106982> ;(Q1)
34. Debnath, S[#], **Pandey, R***, Belyatsky, B., Chew, D., Chalapathi Rao, N. V., Singh, M. K. Carbonatite and syenite magmatism at the Archean-Proterozoic boundary in the Western Dharwar Craton, Southern India: Implication for petrogenesis, source characteristics and terrane geodynamics. *Precambrian Research*. 2026; 433, 107995. <https://doi.org/10.1016/j.precamres.2025.107995> ;(Q1)
 33. Chatterjee, S., Kar, R., Bhattacharya, S., Majumdar, S., **Pandey, R.**, Naskar S., Choudhuri, S., Ghosh, A. Prograde and retrograde hornblende in mafic granulites, Eastern Ghats Province, India: textural and compositional evidence. *Mineralogy and Petrology*. 2025; 1-31. <https://doi.org/10.1007/s00710-025-00955-9> ;(Q2)
 32. **Pandey, R.*** Lithospheric Mantle Evolution of the Eastern Bastar Craton: Insights from Lamproites, Lamprophyres and Mafic Dykes at the Craton-Mobile Belt Interface. *Journal of Geological Society of India*. 2025; 101 (10). <https://doi.org/10.17491/jgsi/2025/174278> ;(Q3)
 31. Sridhar, N., Ragi, M. R., Santosh, M., Subramanyam, K. S. V., **Pandey R.**, Yang, C., Naskar, S. Remnants of Older Crustal Component in Mafic Magmas: Compelling Evidence from the Whole-Rock Geochemistry and Heterochronous Zircons of Mafic Dyke from Karimnagar Granulite Belt, Eastern Dharwar Craton, Southern India. *Geological Journal*. 2025; <https://doi.org/10.1002/gj.70081> ;(Q2)
 30. Bhunia, S., Chalapathi Rao, N. V., Giuliani, A., Tavazzani, L., Talukdar, D., **Pandey, R.**, Kumar, A., Ansari, S., & Lehmann, B. Geochronological and Sr–Pb–C–O isotope constraints on the genesis of carbonatites from the polychronous Mundwara alkaline complex (northwestern India). *Lithos*. 2025; 514–515, 108194. <https://doi.org/10.1016/j.lithos.2025.108194> ;(Q1)
 29. Ashchepkov, I. V., Chalapathi Rao, N. V., **Pandey, R.**, Rasskazov, S. V. Geochemistry and petrology of deep seated mantle magmas and their mantle xenoliths and xenocrysts: Applications to the structure and compositions of mantle lithosphere. *Geosystems and Geoenvironment*. 2025; 100388. <https://doi.org/10.1016/j.geogeo.2025.100388> ;(Q1)
 28. Behera, R. C., Singh, S., Srivastava, S., Kumar, K. V., Reddy, N. R., Barla, A., **Pandey, R.** Trace elemental systematics of auriferous sulfides within the dolerites of northern Cuddapah Basin, southern India: Implications for invisible gold mineralization. *Ore Geology Reviews*. 2025; 106569. <https://doi.org/10.1016/j.oregeorev.2025.106569> ;(Q1)
 27. Sridhar, N., Reddy, R. M., **Pandey, R.**, Sesha Sai, V. V., Singh, K. M., RC Phani, P. Phase Chemistry and Formational Conditions of Mesoproterozoic Gabbro and Diabase

- Dykes from Prakasam Alkaline Province, SE India: Insights into Crystallisation of Fractionated-Oxidised Calc-Alkaline Magmas of Lower-Mid Crustal Magma Chambers. *Journal of the Geological Society of India*. 2025; 101(12), 1810-1822. <https://doi.org/10.17491/jgsi/2025/174307> ;(Q3)
26. **Pandey, R***., Krmíček, L., Müller, D., Pandey, A., Cucciniello, C. Alkaline rocks and their economic and geodynamic significance through geological time. *Geological Society London, Special Publications*. 2025; 551. <https://doi.org/10.1144/SP551-000> ;(Q2)
25. Sahoo, A., Singh, M., Dash, M., **Pandey, R***., Chalapathi Rao, N. V. Indicator Mineral Chemistry of P-17 kimberlite, Wajrakarur field, Eastern Dharwar Craton, southern India: Implications for diamond prospectivity. *Journal of the Geological Society of India*. 2025; 101 (5): 1–13. <https://doi.org/10.17491/jgsi/2025/174136> ;(Q3)
24. **Pandey, R***., Singh, M. K., Pandey, A., Chalapathi Rao, N. V., Belyatsky, B. Multi-stage enrichment in the mantle source region of cratonic lamproites: Geochemical and Sr-Nd-Hf-Os isotopic insights from the Mesoproterozoic diamondiferous lamproites of Bastar Craton, India. *Precambrian Research*. 2025; 418, <https://doi.org/10.1016/j.precamres.2025.107676> ;(Q1)
23. Sarkar, D., Ray, J., **Pandey, R.**, Chowdhury, M., Koeberl, C., Patel, S. C., Ramakrishnan, D., Chakraborty, A., and Dutta S. Mineral chemistry-perspective of the Kadavur gabbro anorthosite Complex, Southern Granulite Terrane of the Indian shield: implications to its petrogenesis in a ridge-subduction setting. *Lithos*. 2025; 494-495, 107880, <https://doi.org/10.1016/j.lithos.2024.107880> ;(Q1)
22. Pandey, A., **Pandey, R.**, Tripathi, A., Keshav Krishna, A., Satyanarayanan M., Kumar, D., Singh, M. Petrology and geochemistry of a calc-alkaline lamprophyre-diorite dyke from Dancherla area, in the vicinity of Wajrakarur kimberlite field, Eastern Dharwar Craton. *Journal of the Geological Society of India*. 2024; 101 (3) : 350-365 <https://doi.org/10.17491/jgsi/2025/174100> ;(Q3)
21. Nalluri, S., Ragi, M.R., **Pandey, R.**, Naskar, S., Randive, K.R., Singh, M. Mineral chemistry of Chrome Diopside bearing off-cratonic lamprophyre from Mesoproterozoic Settupalle complex of Prakasam Alkaline Province: Insights on the magma dynamics at shallow lithospheric mantle beneath the NE margin of the Cuddapah Basin, Southern India. *Special Publication of the Geological Society of London*. 2024; 551, <https://doi.org/10.1144/SP551-2024-35> ;(Q2)
20. Bhunia, S., Chalapathi Rao, N.V., Belyatsky, B., Talukdar, D., **Pandey, R.**, Lehman, B. Petrology of ijolite xenoliths entrained in a nephelinite dyke from the Kamthai, Late Cretaceous polychronous Sarnu-Dandali alkaline complex, North-West India: Evidence

- for recurrent magmatic pulses and magma mixing. *Geosystems and Geoenvironment*. 2023; 100248 <https://doi.org/10.1016/j.geogeo.2023.100248> ;(Q1)
19. **Pandey, R***, Singh, M.K., and Chalapathi Rao, N.V. Origin and evolution of vanadium-rich oxide and titanite phases in lamprophyres and mafic dykes from the Nuapada diamondiferous Lamproite field, Bastar Craton-Eastern Ghats Mobile belt contact, India: metallogenic and geodynamic implications. *Geological Journal*. 2023; 2154-2185. <https://onlinelibrary.wiley.com/doi/full/10.1002/gj.4715> ;(Q2)
 18. Chatterjee, A., Chalapathi Rao, N.V., **Pandey, R.**, Pandey, A. Mantle transition zone-derived eclogite xenolith entrained in a diamondiferous Mesoproterozoic (~1.1 Ga) kimberlite from the Eastern Dharwar Craton, India: evidence from coesite, K-omphacite, and majoritic garnet assemblage. *Geological Magazine*. 2023; <https://doi.org/10.1017/S0016756822001315> ;(Q1)
 17. Khan, T., Bidias L. Z. A., Zafri, S.H., **Pandey, R.**, Chalapathi Rao, N.V., Satyanarayanan, M., Sarma, S. Petrology of ultramafic and mafic rocks from the South Andaman Ophiolite, Bay of Bengal: Evidence for an arc-related high-pressure origin. *Mineralogy and Petrology*. 2022; 1-20. <https://doi.org/10.1007/s00710-022-00796-w> ;(Q2)
 16. Bhunia, S., Chalapathi Rao, N.V., Belyatsky, B., Talukdar, D., **Pandey, R.**, Lehman, B. U-Pb Zircon SHRIMP dating of the Carbonatite hosted REE deposit (Kamthai), Sarnu Dandali alkaline Complex, NW India: links to the Plume-related metallogeny and K-Pg mass extinction. *Gondwana Research*. 2022; 112, 116-125. <https://doi.org/10.1016/j.gr.2022.09.012> ;(Q1)
 15. Nalluri, S., Ragi, M.R., Valivetti V, S.S., **Pandey, R.** Mineral chemistry of biotite and hornblende from Mesoproterozoic quartz syenite intrusions of the Cuddapah Intrusive Province, Eastern Dharwar Craton, India: Implication for their source characterization. *Mineralogy and Petrology*. 2022; 1-23. <https://doi.org/10.1007/s00710-022-00793-z> ;(Q2)
 14. Chowdhury, M., Ray, J., **Pandey, R.**, Sarkar, D., and Guha, P. Petrogenetic implications of mineral chemistry and mode-based statistical studies of Sholayar Alkaline Syenite Complex, Southern Granulite Terrane, India. *Journal of Earth System Sciences*. 2022; 131 196. <https://doi.org/10.1007/s12040-022-01932-y> ;(Q2)
 13. Vikram Raju, B., Asokan. A.D., **Pandey, R.**, Panicker, A.G., Mohan, R. Neoproterozoic crust-mantle interactions from the Eastern Dharwar Craton: Insights from mineral chemistry of the Nizamabad granites, southern India. *Journal of Earth System Sciences*. 2022; 131 162. <https://doi.org/10.1007/s12040-022-01903-3> ;(Q2)

12. **Pandey, R.**, Chalapathi Rao, N.V., Singh, M.K., Talukdar, D. Alkaline rocks from the Deccan Large Igneous Province: Time-space distribution, petrology, geochemistry and economic aspects. *Journal of Earth System Sciences*. 2022; 131 108 <https://doi.org/10.1007/s12040-022-01852-x> ;(Q2)
11. Raghuvanshi, S., Chalapathi Rao, N.V., Talukdar, D., Sharma, A., **Pandey, R.** Chrome-diopside xenocrysts entrained in a Neoproterozoic lamprophyre dyke from the Mysuru area: their origin and implications for lithospheric thickness beneath the Western Dharwar craton, southern India. *Journal of the Geological Society of India*. 2022; 98:23-34. <https://doi.org/10.1007/s12594-022-1923-3> ;(Q3)
10. Singh, M.K[#], **Pandey, R***, Sharma, A., Chalapathi Rao, N.V. Petrology and geochemistry of the diamondiferous Jamnidi occurrence, Bastar Craton, Central India: Metabasalt and not a kimberlite!. *Geosystems and Geoenvironment*. 2021; 1:4, 100020. <https://doi.org/10.1016/j.geogeo.2021.100020> ;(Q1)
9. Sharma, A., **Pandey, R.**, Chalapathi Rao, N.V., Sahoo, S., Dhote, P., Belyatsky, B. 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, mafic recharge, and disaggregation of crystal mush zone in a large igneous province. *Mineralogy and Petrology*. 2021; <https://doi.org/10.1007/s00710-021-00770-y> ;(Q2)
8. **Pandey, R.**, Pandey, A., Chalapathi Rao, N.V., Belyatsky, B., Choudhary, A.K., Lehman, B., Pandit, D., Dhote, P. Petrogenesis of end-Cretaceous/early Eocene lamprophyres from the Deccan Large Igneous Province: Constraints on plume-lithosphere interaction and the post-Deccan lithosphere-asthenosphere boundary (LAB) beneath the NW India. *Lithos*. 2019; 346-347, 105-139. <https://doi.org/10.1016/j.lithos.2019.07.006> ;(Q1)
7. Raghuvanshi, S., Pandey, A., Pankaj, P., Chalapathi Rao, N.V., Chakrabarti, R., Pandit, D., **Pandey, R.** Lithosphere–asthenosphere interaction and carbonatite metasomatism in the genesis of Mesoproterozoic shoshonitic lamprophyres at Korakkodu, Wajrakarur kimberlite field, Eastern Dharwar Craton, southern India. *Geological Journal*. 2019; 54 (5) 3060–3077. DOI:10.1002/gj.3468 ;(Q2)
6. **Pandey, R.**, Chalapathi Rao, N.V., Dhote, P., Pandit, D., Chaudhary, A.K., Sahoo, S., Lehmann, B. Rift-associated ultramafic lamprophyre (damtjernite) from the middle part of the Lower Cretaceous (125 Ma) succession of Kutch, northwestern India: Tectonomagmatic implications. *Geoscience Frontiers*. 2018; 9, 1883-1902. <https://doi.org/10.1016/j.gsf.2017.10.013> ;(Q1)
5. Pandey, A., Chalapathi Rao N.V., Chakrabarti, R., Pankaj, P., Pandit, D., **Pandey, R.**, Sahoo, S. Post-collisional calc-alkaline lamprophyres from the Kadiri greenstone belt:

- Evidence for the Neoproterozoic convergence-related evolution of the Eastern Dharwar Craton and its schist belts. *Lithos*. 2018; 320–321, 105–117. <https://doi.org/10.1016/j.lithos.2018.09.005> ;(Q1)
4. **Pandey, R.**, Sahoo, S., Pandit, D., Pandey, M., Chalapathi Rao, N.V. Recurrent Lamprophyre Magmatism in the Narmada Rift Zone: Petrographic and Mineral Chemistry Evidence from Xenoliths in the Eocene Dongargaon Lamprophyre, NW Deccan Large Igneous Province, India. *Journal of the Indian Institute of Science*. 2021; 98, 401-415. <https://doi.org/10.1007/s41745-018-0074-4> ;(Q1)
 3. **Pandey, R.**, Chalapathi Rao, N.V., Pandit, D., Chaudhary, A.K., Sahoo, S., Dhote, P. Imprints of modal metasomatism in the post-Deccan sub-continental lithospheric mantle: petrological evidence from the ultramafic xenolith in an Eocene lamprophyre, NW India. *Geological Society London, Special Publications*. 2018; 463. <https://doi.org/10.1144/SP463.6> ;(Q2)
 2. Pandey, A., **Pandey, R.**, Pandit, D., Pankaj, P., Chalapathi Rao, N.V. A note on the origin of Clinopyroxene megacrysts from the Udiripikonda lamprophyre, Eastern Dharwar Craton, southern India. *Journal of Indian Geophysical Union*. 2017; 21(2), 124-131 ;(Q3)
 1. Pandey, A., Chalapathi Rao, N.V., Pandit, D., Pankaj, P., **Pandey, R.**, Sahoo, S., Kumar, A. Subduction – tectonics in the evolution of the eastern Dharwar craton, southern India: Insights from the post-collisional calc-alkaline lamprophyres at the western margin of the Cuddapah basin. *Precambrian Research*. 2017; 298, 235–251. <https://doi.org/10.1016/j.precamres.2017.06.004> ;(Q1)

B.) Book Chapters

1. **Pandey, R***, Krmíček, L., Müller, D., Pandey, A., and Cucciniello, C. (eds). Alkaline rocks and their economic and geodynamic significance through geological time. *Geological Society of London, Special Publications*. 2025; 551. <https://doi.org/10.1144/SP551-000> ;(Q2)
2. Nalluri, S., Ragi, M.R., **Pandey, R.**, Naskar, S., Randive, K.R., and Singh, M. Mineral chemistry of Chrome Diopside bearing off-cratonic lamprophyre from Mesoproterozoic Settupalle complex of Prakasam Alkaline Province: Insights on the magma dynamics at shallow lithospheric mantle beneath the NE margin of the Cuddapah Basin, Southern India. *Geological Society London, Special Publications*. 2025; 551, <https://doi.org/10.1144/SP551-2024-35> ;(Q2)

3. **Pandey, R.**, Chalapathi Rao, N.V., Pandit, D., Chaudhary, A.K., Sahoo, S., Dhote, P. Imprints of modal metasomatism in the post-Deccan sub-continental lithospheric mantle: petrological evidence from the ultramafic xenolith in an Eocene lamprophyre, NW India. *Geological Society London, Special Publications*. 2018; 463. <https://doi.org/10.1144/SP463.6> ;(Q2)

C.) Edited book volume and special issues:

1. **R. Pandey***, A. Pandey, L. Krmíček, C. Cucciniello, D. Müller. (eds). Alkaline rocks and their economic and geodynamic significance through geological time. *Geological Society London, Special Publications*. 2025; 551. <https://www.lyellcollection.org/toc/sp/551/1> ;(Q2)
2. Igor V. Ashchepkov, N.V Chalapathi Rao, **Rohit Pandey**, Sergei V. Rasskazov (eds). Special issue on Deep seated mantle magmas and their mantle xenoliths. *Geosystem and Geoenvironment*. 2025; <https://doi.org/10.1016/j.geogeo.2025.100388> ;(Q1)

D.) Submitted publication with peer review process

1. Chatterjee, A., Pandey, A., Jiang, S.-Y., Costa dos Santos, A., **Pandey, R.**, Chalapathi Rao, N.V., Crustal thickening-driven late Archean adakitic alkaline magmatism: A marker of Archean–Proterozoic tectonic transition in the Eastern Dharwar Craton. *Precambrian Research*. 2026; (Acceptance subject to moderate revision)
2. Tripathi, A., Chalapathi Rao, N. V., Giri, R. K., Tavazzani, L., **Pandey, R.**, Rahaman, W., Dev A., Shankar, R., and Lehmann, B. U–Pb (apatite) geochronology, Sr–Nd isotopes and petrochemistry of calc–alkaline lamprophyres from the ca. 2.5 Ga Malanjkhanda (Cu ± Mo) granite pluton, Bastar Craton, Central India: Implication for Neoarchean double–sided subduction and Columbia tectonics. *Precambrian Research*. 2026;
3. Singh, K.M., Pandey, A., Chalapathi Rao, N.V., Pandey, R., Dev, A.J., Rahaman, W., Tomson, J.K., Continental OIB-like magmatism at a cratonic thinspot: Evidence from the geochemistry of Paleoproterozoic (~1.8 Ga) alkaline mafic dykes and lamprophyres from the Eastern Dharwar Craton, Southern India. *Precambrian Research*. 2026;

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