

Curriculum Vitae



1. Name: N.V.CHALAPATHI RAO

2. Date of birth: 23-05-1969

3. Address with telephone/Fax/E-mail No (Present designation, department, institute etc):

(a) **Official:** Director, National Centre for Earth Science Studies (NCESS), Ministry of Earth Sciences (MoES), Akkulam, Thiruvananthapuram- 695011, Kerala. (On Deputation from Banaras Hindu University, Varanasi-221005).

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(b) **Residential:** 3A, Silver, SFS Cyber Palm, NH By Pass, Service Road, Kulathoor, Thiruvananthapuram-695583, Kerala

4. Research Specialisation and Interests: Mineralogy, Igneous Petrology, Geochemistry, and Mineral Resources. Petrogenetic aspects of small-volume potassic to highly potassic rocks such as kimberlites, lamproites, lamprophyres and their entrained xenoliths (including diamond) especially their role in unraveling the large-scale geodynamic processes of the Indian shield including the composition and evolution of its sub-continental lithospheric mantle, origin and original spatial extent of the Mesozoic Large Igneous Provinces (Eg., Deccan Flood basalts, Rajmahal basalts) and the Proterozoic sedimentary basins (e.g., Purana basins).

Research involves field as well as laboratory components with integration of data from petrography, mineral chemistry, geochemistry, stable and unstable isotope systematics and geophysics. Other research interests also include the study of mafic dykes and dyke swarms, their role in supercontinent break-ups, alkaline rocks, carbonatites and mass-extinctions associated with the Cretaceous-Tertiary (65Ma) boundary. EPMA of minerals and materials. Meteorites and planetary Geoscience.

5. Teaching Interests: Mineralogy, Igneous Petrology, Geochemistry, Precambrian Geology, Earth System Science, Mineral Resource, Instrumental techniques in Geology and Mantle petrology.

6. Academic Qualifications: (Starting from Bachelor's Degree)

S.No.	Degree	Subject	Class/ CGP/ Marks	Year	University	Additional particulars
1.	B.Sc (Hons)	Geology (Major) Chemistry (I Aux) Mathematics Physics and Biology (other auxiliaries)	I class with Distinction 85.5%	1989	Osmania University, Hyderabad	I Rank
2.	M.Sc	Geology	I class with Distinction 83.5%	1991	Osmania University, Hyderabad	I Rank & Triple Gold medallist
3.	Ph.D	“A comprehensive and comparative study of the kimberlites from the Anantapur and Mahbubnagar, the lamproites of Chelima and the lamprophyres from the Elchuru, Andhra Pradesh, with special reference to their petrology and geochemistry.” Supervisor: Prof V. Madhavan		1994	Osmania University, Hyderabad	On a CSIR Junior Research Fellowship (NET)
4.	Ph.D	“Petrogenesis of the Proterozoic kimberlites and lamproites from the Cuddapah basin and the Dharwar craton, southern India” Supervisors: Profs S.A. Gibson, D.M. Pyle and D. McKenzie		1997	Cambridge University, U.K.	On a Cambridge-Jawaharlal Nehru Scholarship
5.	Post-Doc Research work	Lithospheric evolution of the Indian and Canadian cratons Host: Prof B. Lehmann		2009-2011	Technical University, Clausthal, Germany	On a senior Alexander von Humboldt Fellowship
6.	AvH- Post Doc Re-visit	Host: Prof B. Lehmann		2015, 2019 & 2023	Technical University, Clausthal, Germany	On AvH Re-visit Fellowship

7. Positions held earlier (in chronological order):

S. No.	Period	Place of Employment	Designation	Scale of Pay
1.	October 1997 to April, 1998	Department of Applied Geochemistry, Osmania University, Hyderabad-7	Scientist Pool (C.S.I.R)	Rs.8000- 275-13,500/- (Basic: Rs.8275)
2.	April, 1998 to May, 2007	Ore Dressing Division, Indian Bureau of Mines, Ministry of Mines, Government of India, Nagpur	Assistant Ore Dressing officer	Rs.8000- 275-13,500/- (Basic: Rs.10,475)
3.	May, 2007- May, 2010	Banaras Hindu University, Varanasi	Reader	Rs.15,600-39100 (AGP:Rs.8000)

4.	May, 2010 – May, 2013	Banaras Hindu University, Varanasi	Associate Professor	Rs. 37,400-67,000 (AGP: 9000)
5.	May, 2013 – continuing	Banaras Hindu University, Varanasi	Professor	Rs.1,44,200-2,18,200/- (Academic Level Pay Matrix - 14AL) Rs. 1,77,400 (Basic)
6.	February, 2024- on deputation till 2029	National Centre for Earth Science Studies, Ministry of Earth Sciences, Thiruvananthapuram	Director	Pay Level 15 Rs.182,200–Rs. 224,100

8. Awards/Honours/Fellowships/Recognitions/Memorial Lectures:

S.No.	Name of the Award	Name of the learned body/ Society /organization	Year of Award
1.	National Merit Certificate for securing high position amongst the successful candidates in S.S.C. from Andhra Pradesh	Ministry of Education & Culture, Govt. Of India,	1984
2.	I Rank in B.Sc (Hons) Geology (Major)	Osmania University, Hyderabad	1989
3.	I Rank in M.Sc (Geology)	Osmania University, Hyderabad	1991
4.	Prof. Y.J. Rao Gold Medal & Y.G.K. Murthy Gold Medal (1991) for standing I in M.Sc (Geology)	Osmania University, Hyderabad	1991
5.	Ramanna Gopanna Gold Medal (1991) for standing I amongst M.Sc students in Physics, Chemistry, Geology, Botany and Zoology	Osmania University, Hyderabad	1991
6.	Cambridge-Nehru Scholarship	Jawahar Lal Nehru Trust for Cambridge University, New Delhi.	1993-1997
7.	Overseas Research Award	Association of the British Universities	1993-1997
8.	Studentship Award	Cambridge Philosophical Society, Cambridge U.K., in recognition of promising research	1996
9.	Peravadhanulu Award	Indian Institute of Mineral Engineers (IIME)	2006

10.	National Mineral Award (Independent category; Geochemistry)	Ministry of Mines, Government of India	2006
11.	Prof C. Naganna Gold Medal (for outstanding contributions to mantle petrology)	Mineralogical Society of India, Mysore	2007
12.	Dr. M.S. Krishnan Gold Medal (for significant contributions to understanding of Indian lithosphere)	Indian Geophysical Union, NGRI, Hyderabad	2007
13.	Prof K. Naha Award (for significant contributions to Precambrian Geology)	Geological Society of India, Bangalore	2008
14.	Senior Alexander von Humboldt Fellowship (In recognition of academic excellence)	Alexander von Humboldt Foundation, Bonn, Germany	2009
15.	ISAG Medal (for outstanding contributions to mineral resources)	Indian Society for Applied Geochemistry (ISAG), Hyderabad	2010
16.	Fellow of the Andhra Pradesh Akademi of Sciences	Andhra Pradesh Akademi of Sciences, Hyderabad	2011
17.	Dr. Coggin J Brown Gold Medal (for outstanding contributions to Geosciences)	Mining, Geological and Metallurgical Institute of India	2012
18.	Fellow of the Indian Academy of Sciences (FASc)	Indian Academy of Sciences	2013
19.	UGC Research Award (2012- 2014) in recognition of academic and research excellence	University Grants Commission	2013
20.	Prof.T.N.Muthuswami Endowment lecture award in petrology	Geological Society of India	2013
21.	PRL (Physical Research	Physical Research Laboratory,	2014

	Laboratory) Award	Ahmedabad	
22.	Fellow of the Telangana State Science Academi	Telangana State Science Academi	2015
23.	Prof. I.C.Pande Memorial Lecture	Department of Geology, Panjab University, Chandigarh	2016
24.	Prof C.N.R.Rao award for Excellence in Research	Banaras Hindu University	2017
25.	Anni Talwani Memorial Prize	Indian Geophysical Union	2018
26.	Fellow of the Indian National Science Academy (FNA)	Indian National Science Academy	2019
27.	Alexander von Humboldt Re-visit Fellowship	Humboldt Foundation, Germany	2015, 2019 & 2023
28.	Belur Rama Rao birth centenary award	Geological Society of India	2019
29.	SGAT award of Excellence	Society of Geologists and Allied Technologists (SGAT), Bhubaneshwar	2019
30.	MoES Award of Excellence	Ministry of Earth Sciences	2020
31.	Prof D.K. Rai Memorial Lecture	Department of Physics, Institute of Science, Banaras Hindu University, & Vignan Parishad, Prayagraj, Allahabad	2021
32.	GSI Sesquicentennial Commemorative Lectureship	Asiatic Society (Ministry of Culture, Government of India), Kolkata	2022
33.	Decennial Award	Indian Geophysical Union (CSIR-NGRI, Hyderabad)	2022
34.	Most Productive Researcher Award-2021	Institute of Science, Banaras Hindu University	2022
35.	Prof G.S.Mithal Memorial Lecture award	Indian Institute of Technology, Roorkee	2023
36.	Fellow of the National Academy of Sciences (FNASc)	National Academy of Sciences (NASI), Prayagraj	2023
37.	Shri T.M. Mahadevan Memorial Lecture	Cochin University of Science and Technology (CUSAT), Kochi	2024
38.	Guest of Honor to deliver Convocation Address	Manonmanian Sundaranar University, Thirunelveli	2024
39.	Space Physics Laboratory (SPL) Day Lecture	Vikram Sarabhai Space Centre (VSSC), ISRO, Thiruvananthapuram	2025

40.	J.C.Bose Grant	Anusandhan Research Foundation (ANRF), New Delhi	2025
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9. Affiliations:

- (1) Fellow of the Indian National Science Academy (FNA), New Delhi
- (2) Fellow of Indian Academy of Sciences (FASc), Bangalore
- (3) Fellow of National Academy of Sciences (FNASc), Prayagraj
- (4) Fellow of the Telangana Akademi of Sciences, Hyderabad
- (5) Life Fellow of the Geological Society of India, Bangalore
- (6) Life Fellow of the Mineralogical Society of India, Mysore
- (7) Life Fellow of the Indian Geophysical Union, Hyderabad
- (8) Life Fellow of the Gondwana Geological Society, Nagpur
- (9) Life Fellow of the South Asian Association of Economic Geologists, Bhopal
- (10) Life Fellow of the Cambridge Commonwealth Trust, Cambridge
- (11) Life Fellow of the Mining, Geology and Metallurgical Institute of India, Kolkata
- (12) Life Fellow of the Geology, Mining and Metallurgical Society of India, Kolkata
- (13) Life Fellow, Indian Science Congress Association, Kolkata
- (14) Life Fellow, Association of Exploration Geophysicists, Hyderabad

10. Editorial Board Member:

- Journal of Earth System Sciences (Chief Editor 2016-2023; Associate Editor 2013-2016; 2023- 2024)
- Geological Journal, Wiley (2018-2024)
- Current Science (since 2014)
- The Journal of Indian Geophysical Union (2014-2020)
- Journal of the Geological Society of India (2012-2018)
- Himalayan Geology (2011-2016)
- Indian Journal of Geology (2012-)
- Journal of Applied Geochemistry (2010-2015)
- Indian Journal of Geosciences (formerly Indian Minerals) (2018-2025)

11.(A) Complete list of research publications (names as they appear, year, title, journal name, volume, page numbers)

2025

1. Sudipa Bhunia, **N.V.Chalapathi Rao**, Andrea Giuliani, Lorenzo Tavazzani, Debojit Talukdar, Rohit Pandey, Alok Kumar, Sirajuddin Ansari and B.Lehmann (2025) Geochronological and Sr-Pb-C-O isotope constraints on the genesis of carbonatites from the polychronous Mundwara alkaline complex (north western India). Lithos, v.514-515, DOI: [10.1016/j.lithos.2025.108194](https://doi.org/10.1016/j.lithos.2025.108194).
2. R. B. Ananth, **N. V. Chalapathi Rao**, Abhinay Sharma, J. Amal Dev and 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* <https://doi.org/10.2343/geochemj.GJ25014>.

3. Soumi Chattopadhyaya, Debojit Talukdar, **N. V. Chalapathi Rao** and Biswajit Ghosh (2025) The Deccan nephelinite conundrum - derivation from a metasomatized sub-continental lithospheric mantle or a mantle transition zone? *International Geology Review*, DOI: [10.1080/00206814.2025.2547394](https://doi.org/10.1080/00206814.2025.2547394).
4. [Sravan Kumar Kotluri](#), [Suresh Kumar](#), T, A.Prajith, K. Eldhose, S.Shivapriya, S.Kaliraj, V.Nandakumar and N.V.Chalapathi Rao (2025) Geomorphological Evolution of the Multi-Chain Cascading Disaster of Wayanad (30 July 2024), Kerala, India. *Journal of the Geological Society of India*, v.101(8), 1247-1260. doi.org/10.17491/jgsi/2025/174230.
5. A.Dhar, B.Ghosh, T.Morishita, S.Chattopadhyaya, D.Bandyopadhyay, **N.V.Chalapathi Rao**, Lydéric France, Du K Nguyen, S.Roy and M. Koley (2025) Development of oxy-symplectites in a slow-spreading lower oceanic crust: Insights from the Atlantis Bank Gabbro Massif, Southwest Indian Ridge. *American Mineralogist* 110(5), 776-790, doi.org/10.2138/am-2024-9350.
6. Soumendu Sarkar, Hayden Dalton, Andrea Giuliani, David Phillips, D. Graham Pearson, Geoff M. Nowell, Jon D. Woodhead, Janet Hergt, Roland Maas, A. Lynton Jaques, **N.V. Chalapathi Rao**, Yaakov Weiss and Sujoy Ghosh (2025) Extreme enriched-mantle (EM) compositions recorded by the Sr-Nd-Hf isotopes of global cratonic lamproites. *Geochimica et Cosmochimica Acta*, 394, 220-243, doi.org/10.1016/j.gca.2025.02.014.
7. Rohit Pandey, Mahendra K Singh, Ashutosh Pandey, **N.V.Chalapathi Rao** and B.Belyatsky (2025) Multi-stage enrichment in the mantle source region of cratonic lamproites: Geochemical and Sr-Nd-Hf-Os isotopic insights from the Mesoproterozoic lamproites of Bastar Craton, India. *Precambrian Research*, 418, 107676, doi: doi.org/10.1016/j.precamres.2025.
8. Ashrumochan Sahoo, Rohit Pandey, Minu Singh, Mahima Dash and **N.V.Chalapathi Rao** (2025) 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*, 101(5), 634-646. doi.org/10.17491/jgsi/2025/174136
9. Debojit Talukdar, **N.V.Chalapathi Rao***, Alok Kumar, J.Amal Dev and J.K. Tomson (2025) Palaeoproterozoic lamproite pulses from the Eastern Dharwar Craton, southern India: some geodynamic implications. *Journal of the Geological Society of India* 101(6), 919-924. doi.org/10.17491/jgsi/2025/
10. Manojit Koley, Biswajit Ghosh, Jiří Sláma, S.Chattopadhyaya, A.Dhar, S.Roy, **N.V. Chalapathi Rao**, T.Morishita, and S.K.Tripathi (2025) Tripathi 6 Origin and evolution of ferrogabbro-anorthosite suite of rocks from the Neoproterozoic Koraput alkaline complex, India: implication for the Rodinia breakup. *Lithos*, 508-509, 108111, doi.org/10.1016/j.lithos.2025.108111.

11. Igor V Ashchepkov, **N.V.Chalapathi Rao**, Rohit Pandey, Sergei V Rasskazov (2025) 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* doi.org/10.1016/j.geogeo.2025.100388.

2024

12. S.Bhunia, **N.V.Chalapathi Rao***, D.Talukdar, R.Pandey and B.Lehmann (2024) 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*, Elsevier, 3(4), 100248, doi: 10.1016/j.geogeo.2023.100248
13. **N.V.Chalapathi Rao** and G.Parthasarathy (2024) Recent Studies on Volcanic Materials and Chemistry of the Earth's Interior—An Indian Perspective. *Journal of the Geological Society of India*, 100(2), 159-167. doi.org/10.17491/jgsi/2024/173816
14. B.J.Saikia, G.Parthasarathy, **N.V.Chalapathi Rao**, Vikas Sheth and R.R.Borah (2024) Mineral chemistry of Mahadevpur H4/5 chondrite: characterization of nanodiamonds through micro-Raman spectroscopic studies. *Current Science*, 126(5), 574-582. doi: 10.18520/cs/v126/i5/574-582.
15. VP Singh, NG Rudraswami, **N.V. Chalapathi Rao**, Matthew J Genge, M Pandey, S Sreekuttan and S Chattopadhyaya (2024) Discovery of fossil micrometeorites from the Deccan trap intertrappeans. *Meteoritics and Planetary Science*, 59(11), 2922-2937. doi: 10.1111/maps.14256

2023

16. Deepak Kumar, **N.V.Chalapathi Rao***, A.Tripathi, B.Belyatsky, P.Prabhat, W.U.Rahaman and M.Satyanarayanan (2023) U-Pb Neoproterozoic age and petrogenesis of a calc-alkaline shoshonitic lamprophyre from Simdega area, Chhotanagpur Gneissic Complex (Eastern India): Implication for the evolution of the Central Indian Tectonic Zone and Rodinia tectonics. *Chemical Geology*, Elsevier, 631 (5), 121512, doi.org/10.1016/j.chemgeo.2023.
17. Sneha Raghuvanshi, **N.V.Chalapathi Rao***, D Talukdar, B Belyatsky, P Prabhat, Waliur Rahaman, B Lehmann, JG Meert (2023) Petrology, U-Pb titanite dating and Sr-Nd isotope geochemistry of a shoshonitic lamprophyre dyke near the Western Dharwar Craton-Southern Granulite Terrane contact, southern India: Implications for long-lived enriched mantle, widespread Tonian-Cryogenian rifting, and Rodinia configuration. *Precambrian Research*, 399, 107241, doi.org/10.1016/j.precamres.2023.10724.

18. L.A.Z.A.Bidas, M.Rammohan, **N.V.Chalapathi Rao** and A.Moundi (2023) Petrogenesis and geodynamic environment of the Recent pyroclastic deposits from Baïgom and Petpenoun volcanoes of the Noun Plain, Cameroon Volcanic Line, Central Africa. *Geosystems and Geoenvironment*, Elsevier, 2(4), 100213. doi.org/10.1016/j.geogeo.2023.100213
 19. Rohit Pandey, Mahendra K Singh and **N.V.Chalapathi Rao** (2023) Origin and evolution of vanadium-rich oxide and titanite phases in lamprophyre and mafic dykes from the Nuapada diamondiferous Lamproite field, Bastar Craton-Eastern Ghats Mobile belt contact, India: Metallogenic and geodynamic implications. *Geological Journal*, Wiley, 58(5), 2154-2185, doi: 10.1002/gj.4715.
 20. Ajit Sahoo, R.Krishnamurthi, GK Dinkar, **N.V.Chalapathi Rao**, AK Ojha, Sneha Raghuvanshi and Sudipa Bhunia (2023) Gold-Sulfide Mineralization in Banded Iron Formation at Girar, Bundelkhand Craton, India: Inferences from Field Observations and Petrography. *Journal of the Geological Society of India*, 99, 13-22. doi.org/10.1007/s12594-023-2262-8.
 21. Amitava Chatterjee, **N.V.Chalapathi Rao***, Rohit Pandey and Ashutosh Pandey (2023) 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*, 160(5), 874-887. doi:10.1017/S0016756822001315.
 22. Liu, J.Q., Chen, L.H., Wang, X.K., Krmicek, L., Zeng, G., Zhang, X.Y., Murphy, D.T., Dalton, H., Ashutosh Pandey and **N.V.Chalapathi Rao** (2024) Zinc isotopes reveal disparate enriched sources of contemporary lamprophyres in Eastern Dharwar Craton. *Contributions to Mineralogy and Petrology*. 178 (89), doi.org/10.1007/s00410-023-02073-1.
 23. Abhinay Sharma, Rohit Pandey, **N.V.Chalapathi Rao***, Samarendra Sahoo, B.V.Belyatsky and P.Dhote (2023) 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*, 415 (117) 415–445 doi.org/10.1007/s00710-021-00770-y.
- 2022**
24. Sneha Raghuvanshi, **N.V. Chalapathi Rao***, Debojit Talukdar, Abhinay Sharma and Rohit Pandey (2022) 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*, 98, 23-34. doi.org/10.1007/s12594-022-1923-3.

25. Deepak Kumar, **N.V.Chalapathi Rao***, Priyesh Prabhat , Amitava Chatterjee and Waliur Rahaman (2022) Petrochemistry and Sr-Nd isotopes of post-collisional Neoproterozoic (ca. 950 Ma) amphibolite dykes of continental flood basalt affinity from the Simdega area: Implications for the geodynamic evolution of the Chhotanagpur Gneissic Complex, Eastern India. *Lithos*, 428-429, 106810, doi.org/10.1016/j.lithos.2022.106810.

26. Mahendra K Singh, Rohit Pandey, Abhinay Sharma and **N.V.Chalapathi Rao** (2022) Petrology and geochemistry of the diamondiferous Jamnidi occurrence, Bastar Craton, Central India: Metabasalt and not a kimberlite. *Geosystems and Geoenvironment*. 100020. <https://doi.org/10.1016/j.geogeo.2021.100020>.

27. L Krmíček, and **N.V.Chalapathi Rao** (2022) Lamprophyres, lamproites and related rocks as tracers to supercontinent cycles and metallogenesis. *Geological Society of London special Publication*, 513, doi.<https://doi.org/10.1144/SP513-2021-159>.

28. Abhinay Sharma, Samarendra Sahoo, **N.V.Chalapathi Rao***, B.Belyatsky, P.Dhote and B.Lehmann (2022) Petrology and Nd-Sr isotopic composition of alkaline lamprophyres from the Early to Late Cretaceous Mundwara alkaline complex, NW India: Evidence of crystal fractionation, accumulation and corrosion in a complex magma chamber plumbing system. *Geological Society, London, Special Publications*, Geological Society of London, 513. doi.org/10.1144/SP513-2020-175.

29. Ashutosh Pandey, **N.V.Chalapathi Rao***, Waliur Rahaman, V.Sheth and S.Sahoo (2022) Paleoproterozoic metaluminous syenites synchronous with the c. 2.21 Ga mafic dyke swarms from the Eastern Dharwar Craton, India: implications for alkaline magmatism associated with the breakup of supercraton Superia. *Geological Society of London Special Publication*, Geological Society of London, 513, <https://doi.org/10.1144/SP513-2020-92>.

30. Lukáš Krmíček, Tomáš Magna, Ashutosh Pandey, **N. V. Chalapathi Rao** and Jindrich Kynický (2022) Lithium isotopes in kimberlites, lamproites and lamprophyres as tracers of source components and processes related to supercontinent cycles. *Geological Society of London Special Publication*, Geol Soc London, 513, <https://doi.org/10.1144/SP513-2021-60>.

31. Alok Kumar, Debojit Talukdar, N. V. Chalapathi Rao, R. Burgess and B. Lehmann (2022) Mesoproterozoic ^{40}Ar - ^{39}Ar ages of some lamproites from the Cuddapah Basin and Eastern Dharwar Craton, southern India: implications for diamond provenance of the Banganapalle Conglomerates, age of the Kurnool Group and Columbia tectonics. *Geological Society, London, Special Publications*, 513, doi.org/10.1144/SP513-2020-247.

32. Rohit Pandey, Rao, **N.V.Chalapathi Rao*** and Mahendra K Singh (2022) Alkaline rocks from the Deccan Large Igneous Province: Time–space distribution, petrology, geochemistry and economic aspects. *Journal of Earth System Science*, 131, 108, doi.org/10.1007/s12040-022-01852-x.

33. Rashmi Gupta, Mayuri Pandey, Devsamridhi Arora, N.C.Pant, and **N. V. Chalapathi Rao** (2022) Evincing the presence of a trans-Gondwanian mobile belt in the interior of the Princess Elizabeth Land, East Antarctica: insights from offshore detrital sediments, rock fragments, and monazite geochronology. *Geological Journal*, 57(7), 2587-2601, doi.org/10.1002/gj.4430.
34. S. Raghuvanshi, **N.V.Chalapathi Rao***, AK Sahoo and D Talukdar(2022) Magmatic Ni–Cu–Fe sulphide mineralization from the Halaguru area, Eastern Dharwar Craton, southern India. *Current Science*, 122(11), 1288-1297. doi: 10.18520/cs/v122/i11/1288-1297.
35. Sudipa Bhunia, **N.V.Chalapathi Rao***, B.Belyatsky, D. Talukdar, Rohit Pandey and B.Lehmann (2022) SHRIMP U-Pb zircon geochronology of the carbonatite-hosted REE deposit of Kamthai, Late Cretaceous polychronous Sarnu Dandali alkaline complex, NW India: Links to plume-related metallogeny and CO₂ outgassing at the K-Pg boundary. *Gondwana Research*, 112, 116-125. <https://doi.org/10.1016/j.gr.2022.09.012>.
36. B.J.Saikia, G.Parthasarathy, **N.V.Chalapathi Rao**, Rashmi Borah and Deepak kumar (2022). High Shock Pressure Metamorphism Induced Transformations of Olivine and Feldspar in Natan Balijan L4 Chondrite: Evidence from Micro-Raman, Infrared Spectroscopy, X-ray Diffraction and Electron Microprobe Analysis. *Journal of the Geological Society of India*, 98(6), 731-739. doi.org/10.1007/s12594-022-2061-7.
37. Tavheed Khan, L.A.Z.A.Bidas, S.H.Jafri, R.Pandey, N.V.Chalapathi Rao, M.Satyanarayanan and D.Srinivasa Sarma (2022) 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*, 116, 473-492. doi.org/10.1007/s00710-022-00796-w.

2021

38. M.P.M.Prasanth, G.Shellnutt, K.R.Hari, **N.V.Chalapathi Rao** and G. Hou (2021) Platinum-group element and Au geochemistry of an ultramafic intrusion from the Sonakhan greenstone belt, Bastar craton, Central India: Tectono-magmatic implications. *Geological Journal* 56(11), 5550-5563, doi.org/10.1002/gj.4257.
39. I.M.Bhat, Talat Ahmad, D.V.Subba Rao, S.Balakrishnan and **N.V.Chalapathi Rao** (2021) PGE and isotopic characteristics of Shergol and Suru Valley Ophiolites, Western Ladakh: Implications for supra-subduction tectonics along Indus Suture Zone. *Geoscience Frontiers*, Elsevier, 12, 101118. <https://doi.org/10.1016/j.gsf.2020.11.014>.
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