



National Centre for Earth Science Studies
Ministry of Earth Sciences, Government of India

PROGRAMME SCHEDULE

NATIONAL CONFERENCE ON

**Magmatism, Metamorphism
&
Metallogeny**

Focus on The Indian Cratons and Mobile Belts

2025 February 16 ▶ 18

National Centre for Earth Science Studies
Thiruvananthapuram

9:30 - 9:40 Welcome

Prof. N V Chalapathi Rao, Director, NCESS

9:40 - 9:50 Inauguration

Dr. M Ravichandran, Secretary, MoES

9:50 - 10:00 General Remarks

Prof. Talat Ahmad, RAC Chairman, NCESS

10:00 - 10:15 General Remarks

Prof. Somnath Dasgupta, ISI, Kolkata

10:15 - 11:00 HIGH TEA

Day 1

Magmatism

SCHEDULE	TITLE	PRESENTING AUTHOR
SESSION 1: Chair (Prof Talat Ahmad and Prof Hetu Sheth)		
11:00 - 11:20	Analogous mantle plume derived giant circumferential, radiating, and linear dyke swarms on Earth and Venus: examples from the Indian Shield and Central Eistla Region	Prof. Rajesh K Srivastava <i>BHU, Varanasi, U.P.</i>
11:20 - 11:35	Paleoarchean to Mesoarchean episodic crustal growth and reworking in the western Dharwar Craton: Evidence from sedimentary archive	Prof. Sukanta Dey <i>IISER, Kolkata</i>
11:35 - 11:50	Petrological evolution of Bhuj and Malwa volcanics from the Northern Deccan Trap Province	Dr. Simontini Sensarma <i>IIT Bhubaneswar</i>
11:50 - 12:05	Geochemical and Petrogenetic Study of Granitoids from Eastern part of Central India, Central Indian Tectonic Zone (CITZ)	Dr. Indrajeet Saket <i>IGNTU, Amarkantak</i>
SESSION 2: Chair (Prof Rajesh K Srivastava and Dr M.Rammohan)		
12:05 - 12:25	Towards understanding the complexity of the Banded Gneissic Complex, Aravalli Craton, NW India	Prof. M.E.A Mondal <i>AMU</i>
12:25 - 12:40	The Geochemical Signatures of Indian Cratons in terms of Magmatism, Metamorphism and Metallogeny - A Comprehensive Analysis.	Prof. Debdas Ray <i>Asutosh College, Kolkata</i>
12:40 - 12:55	Geochemical and Sr-Nd-Hf-Os isotopic evidence for diverse metasomatic processes in the formation of cratonic lamproites: insights from Mesoproterozoic diamondiferous lamproites of the Bastar Craton, India	Dr. Rohit Pandey <i>BHU, Varanasi, U.P.</i>
12:55 - 1:10	Mantle source of Kutch alkaline suite of Deccan Large Igneous Province: combined oxygen and radiogenic isotope perspective	Dr. Soumi Chattopadhyaya <i>BHU, Varanasi, U.P.</i>
1:10 - 2:30 LUNCH		
SESSION 3: Chair (Prof Biswajit Ghosh and Prof. A.P.Pradeepkumar)		
2:30 - 2:50	Viewing tectonic milieu of the Kadavur gabbro-anorthosite complex, southern granulite terrane of the Indian shield using chemistry of minerals	Prof. Jyotiskankar Ray <i>Univ. of Calcutta</i>
2:50 - 3:05	Calcio-carbonatite and nepheline-syenite form the Kunavaram alkaline complex, India: Petrogenetic implications on their comagmatic origin	Ms. Munmun Chakraborty <i>GSI, Telangana Unit, Hyderabad</i>
3:05 - 3:20	Magma Mixing and Trans lithospheric magmatic plumbing system processes in the end-Cretaceous (67 My) lamprophyres from the Nirwandh alkaline complex, Kutch, Northwest India	Dr. Abhinay Sharma <i>Ravenshaw University, Odisha</i>
3:20 - 3:35	Petrogenesis of Neoproterozoic and Mesoproterozoic Shoshonitic Lamprophyres from the Nuapada Lamproite Field, Eastern Bastar Craton, Central India	Dr. Mahendra Kumar Singh <i>BHU, Varanasi, U.P.</i>
3:35 - 4:00 TEA		
SESSION 4: Chair (Prof M.E.A Mondal and Dr. Asish Dongre)		
4:00 - 4:20	Petrogenetic evolution of the granitoids from the Chitradurga Greenstone Belt, Western Dharwar Craton: Implications on crustal growth and reworking	Dr. M. Ram Mohan <i>CSIR-NGRI, Hyderabad</i>
4:20 - 4:35	Paleoproterozoic mafic dyke swarms in the Dharwar Craton: a window into subcontinental lithospheric Mantle evolution	Dr. Amiya Kumar <i>BHU, Varanasi, U.P.</i>
4:35 - 4:50	Geochronology and geochemistry of bimodal metavolcanics from the Nandgaon Group, Bastar Craton - Implications for Neoproterozoic arc magmatism and tectonic evolution	Dr. Sathya Narayan Mahapatro <i>GSI</i>
4:50 - 5:05	The physical volcanology of large-scale effusive and explosive silicic eruptions in southeastern Saurashtra, Deccan Traps	Dr. Anmol Naik <i>Goa University</i>

SCHEDULE	TITLE	PRESENTING AUTHOR
SESSION 5: Chair (Prof. J.S.Ray and Prof. Sukanta Dey)		
5:05 - 5:20	Long-lived Large Igneous Provinces (LIPs) and role of volcanic-plutonic processes	Prof. Sarajit Sensarma <i>Univ. of Lucknow</i>
5:20 - 5:35	Deccan Large Igneous Province: A review of alkaline magmatism and mineralization potential	Dr. Asish Dongre <i>SPPU, Pune</i>
5:35 - 5:50	Insights on mantle plume heterogeneities through petro-geochemical characterization of Lichi Volcanics, Arunachal Himalayas	Dr. Rashmi Rekha Naik <i>GSI</i>
5:50 - 6:05	Assessing the prospect of Platinum Group Elements from Khandwa basalt, Eastern Deccan Volcanic Province (India) in the light of black shale contamination – An experimental study	Dr. Payel Dey <i>IISER, Berhampur</i>
Session 6: POSTERS (Chair: Dr. Amiya Samal, Dr. Rohit Pandey, Dr. Simontini Sensarma and Dr. S.N. Mahapatro)		
6:05 - 7:30	A geological and petrochemical study of potassic porphyritic granites of Goa: implications for late Archean crustal evolution	Dr. Poornima Dhawaskar Sawant <i>Goa University</i>
	Petrogenetic evolution of the Koraput alkaline complex, India: connection with the Rodinia breakup	Manojit Koley <i>Univ. of Calcutta</i>
	Petrogenesis of alkaline mafic dykes: A case study from northwestern margin of Cuddapah basin, Eastern Dharwar Craton, Southern India.	Minu Singh <i>BHU, Varanasi, U.P.</i>
	Geochemistry and isotopic compositions of the Proterozoic granitoids from the southwestern Chhotanagpur Granite Gneiss Complex (CGGC), central India: Petrogenesis and tectonic implications	Mohammed Qasim <i>CSIR-NGRI, Hyderabad</i>
	Paleoproterozoic-Neoproterozoic subduction-accretion geodynamics across the Western Dharwar - Central Dharwar cratonic boundary: Insights from the petrology & geochronology of mafic-ultramafic and syenite intrusives from the Polychronous Koppal Alkaline Complex, India.	Nikhil Kuamr Singh <i>BHU, Varanasi, U.P.</i>
	Glimmerite and Melteigite xenoliths from Camptonite-tinguaite dyke, Nongchram Fault zone, East garo hills, Shillong Plateau, Northeast India :Evidences for mantle heterogeneity and magma mixing	R.B. Ananth <i>BHU, Varanasi, U.P.</i>
	The Geochemistry of Archean TTGs and Sanukitoids: New Perspectives on Granitoid Classification	S.V. Balaji Manasa Rao <i>UoH, Hyderabad</i>
	S type granites: Insight into Archean geodynamics & surface processes	Sayani Chatterjee <i>NISER, Bhubaneswar</i>
	Petrogenesis of Lamprophyre dykes from Jonnagiri schist belt; Imprints of heterogeneity in sub-lithospheric mantle beneath green schist belts across western part of the Eastern Dharwar Craton	Sourav Naskar <i>BHU, Varanasi, U.P.</i>
	A new evidence of mid-Cretaceous Pre-Deccan carbonatite magmatism in north-western India: Insights from apatite-calcite U-Pb geochronology, bulk and trace element geochemistry and C-O-Sr-Pb isotope geochemistry from the polychronous Mundwara alkaline complex	Sudipa Bhunia <i>BHU, Varanasi, U.P.</i>
	Mineralogical characterization of granophyric dykes from the central-western Bastar craton: implications for the role of metasomatism	Aditi Tripathi <i>BHU, Varanasi, U.P.</i>
	Geochemistry of mafic alkaline dykes from the Sirohi area, Aravalli craton, North-western India; Geodynamic implication for the evolution of Aravalli Craton.	Mahimaa Dash <i>BHU, Varanasi, U.P.</i>
	Inferring the emplacement mechanism of ca. 2.26-2.25 Ga Ippagudda-Dhiburhalli dyke swarm: Implications from Anisotropy of Magnetic Susceptibility and Fracture data analyses.	Srinjoy Datta <i>BHU, Varanasi, U.P.</i>
	Petrological and paleomagnetic studies on the granophyres of Barda hill, Saurashtra Gujarat	Dnyaneshwar Korte <i>SPPU, Pune</i>
Biogeochemical transitions across the Permian-Triassic successions of Spiti, NW Himalaya	JayaPrakash Naik <i>UoH, Hyderabad</i>	
Origin of Central Kerala Dykes: Implications from U-Pb age data	Haripriya S <i>NCESS, Thiruvananthapuram</i>	

7:30 onwards Dinner

Day 2

Metamorphism

SCHEDULE	TITLE	PRESENTING AUTHOR
9:30 - 9:45	Sustainability of Metamorphic Petrology research in the Indian context	Prof. Somnath Dasgupta <i>ISI, Kolkata</i>
SESSION 7: Chair (Prof Somnath Dasgupta and Prof. Sankar Bose)		
9:45 - 10:05	Pulsed Tectonism and its Timescales: New Insights from Metamorphic P-T Paths and Diffusion Chronometry	Prof. Santanu Kumar Bhowmik <i>IIT Kharagpur</i>
10:05 - 10:20	Petrogenesis of mid-Neoproterozoic charnockites from the Madurai block, India: Constraints from U-Pb geochronology, geochemistry, and geochemical modelling	Dr. Tapobrato Sarkar <i>IISER Kolkata</i>
10:20 - 10:35	Metamorphic history of Neoproterozoic Gadwal Greenstone Belt, Eastern Dharwar Craton: Implications for hot accretionary to collisional orogen	Dr. Aliba Ao <i>CEOA, UoH, Hyderabad</i>
10:35 - 11:00 TEA		
SESSION 8: Chair (Prof Pulak Sengupta and Prof Saibal Gupta)		
11:00 - 11:20	Lasting impression of late stage fluids on lower crustal rocks: the curious case of the Eastern Ghats Province, India	Prof. Sankar Bose <i>Presidency University, Kolkata</i>
11:20 - 11:35	Exhumation and cooling Gondwanan Terranes: Resolving the metamorphic dissension through accessory mineral geochronology	Dr. J Amal Dev <i>NCESS, Thiruvananthapuram</i>
11:35 - 11:50	Formation of aluminous clinopyroxene-ilmenite-spinel symplectic assemblage in a regionally metamorphosed calc-silicate granulite from the Chotanagpur Granite Gneiss Complex, East Indian shield	Dr. Sirina Roy Choudharya <i>Jadavpur University, Kolkata</i>
11:50 - 12:05	Tectonic setting and depositional age of metasedimentary rocks of the Simlipal Complex, Singhbhum Craton, eastern India: constraints from U-Pb zircon geochronology	Dr. Ajay Kumar Singh <i>CSIR-NGRI, Hyderabad</i>
12:05 - 12:20	Tectono-thermal Evolution of the Proterozoic Mahakoshal Belt around Jabalpur Along the Northern Margin of Central Indian Tectonic Zone	Dr. Lopamudra Saha <i>IIT Roorkee</i>
12:20 - 12:35	Geochemistry and Geochronology of Monazites from Coastal Sands of Southern India: Implications for the Evolution of Mobile Belts	Dr. K Bangaku Naidu <i>IPE, Visakhapatnam</i>
12:35 - 2:00 LUNCH		
SESSION 9: Chair (Prof S. K Bhowmik and Dr. Tomson J.K.)		
2:00 - 2:20	Fluids during metamorphism of the lower crust – the interplay with deformation	Prof. Saibal Gupta <i>IIT Kharagpur</i>
2:20 - 2:35	Emergence of continental crust on early Earth	Dr. Priyadarshi Chowdhury <i>NISER, Bhubaneswar</i>
2:35 - 2:50	Giant epidote formation in parts of anorthosite layers of Sittampundi Layered Complex, Tamil Nadu.	Dr. Moumita Talukdar <i>IEST, Shibpur</i>
2:50 - 3:05	Configuration of the Intra-Terrane Shear Zones in the Bundelkhand Craton: An odyssey of Progressive Riedel Shear Dynamics	Dr. Sayandeep Banerjee <i>BHU, Varanasi</i>
3:05 - 3:20	Assessing the linkage between garnet zoning and metapelite anatexis: insights from Sandmata Complex, Northwestern India	Dr. Aditya Naik <i>IISER Mohali</i>
3:20 - 3:35	Cryogenian metamorphism from Madurai Block of the Southern Granulite Terrane, India: A petrochronological appraisal	Dr. Mohd Baqar Raza <i>IISER Kolkata</i>
3:35 - 4:00 TEA		

SCHEDULE	TITLE	PRESENTING AUTHOR
SESSION 10: Chair (Dr. Lopamudra Saha and Prof. Rajib Kar)		
4:00 - 4:20	Magmatism and post magmatic alteration of ultramafics in Salem, southern India	Prof. V.J Rajesh <i>IIST, Thiruvananthapuram</i>
4:20 - 4:35	Geochemistry, P-T pseudosection and monazite geochronology of metasedimentary rocks, Pranhita Godavari Basin, South India	Dr. Pritam Nasipuri <i>IISER Bhopal</i>
4:35 - 4:50	Evidence for Ti mobility during regional metamorphism from the Makrohar Granulite Belt, Central India	Dr. Shreya Karmakar <i>GSU, ISI Kolkata</i>
4:50 - 5:05	Neoproterozoic transient tectonics from Western Dharwar Craton: Insights from Shimoga greenstone belt	Dr. K R Aadisheshan <i>NIAS, IISc Bengaluru</i>
5:05 - 5:20	Metamorphic Characterization of Metasites from Proterozoic Chandil Formation and their Implication in the Tectono-Thermal Evolutionary History of Northern Margin of North Singhbhum Mobile Belt (N-NSMB)	Dr. Arnab Dasgupta <i>Hooghly Mohsin College, West Bengal</i>
Session 11: Poster Session (Prof VJ Rajesh, Dr Tapabrato Sarkar, Dr Shreya Karmakar and Dr Moumita Talukdar)		
5:20 - 6:30	Petrogenesis and U-Pb zircon/apatite geochronology of mafic granulites from Coorg Massif, Western Dharwar Craton; Tracing signatures of progressive metamorphism and Neoproterozoic oblique convergence	V. Deepchand <i>Univ. of Kerala, Thiruvananthapuram</i>
	Assessing the surface and sub-surface characteristics of the ~E-W crustal scale Raksha Shear Zone, Bundelkhand Craton, India	Aishwarya Mohan <i>Dept. of Geology, BHU, Varanasi</i>
	Provenance, tectonic setting and paleoweathering history of Meso-Neo proterozoic metasediments of Shillong Basin, Shillong Plateau	Amresh Bharati <i>CSIR-NGRI, Hyderabad</i>
	Pushing the Boundaries: The Extremes of Metamorphic Conditions	Anuj Ghosh <i>IIT Kharagpur</i>
	Metamorphic evolution of textural microdomains in high Mg-Al granulites from Eastern Ghats Province, India: implication to distinct mineral paragenesis	Anwesha Ghosh <i>Univ. of Calcutta</i>
	Petrogenesis of high-grade metamorphic rocks across the KKPT Shear Zone in Madurai Granulite Block, Southern India: Implications on Crustal Evolution	M S Parvathy <i>MES Ponnani College, Univ. of Calicut</i>
	Do Matrix Minerals Control Garnet Growth During Metamorphism? Insights From A Multilayered Garnet Biotite Schist From Ibrampur, Goa.	Siddhi Shirodkar <i>Goa University, Taleigao</i>
	Metamafic Dykes as an Indicator of a Continental Collision between Coorg Block and Western Dharwar Craton	Rituparna Nayak <i>IIT Kharagpur</i>
	Magmatic charnockites (sensu lato) as products of crustal melting: implications to source rock heterogeneity	Sanchari Chatterjee <i>Univ. of Calcutta</i>
	P-T-t constraints from the khondalites of the northernmost crustal segment of the Eastern Ghats Mobile Belt, India: implications for Proterozoic tectonics.	Soumyaranjan Behera <i>IIT Roorkee</i>
	Evidence of delamination-driven orogenesis during Neoproterozoic	Tiyasha Basu <i>NISER, Bhubaneswar</i>
	Coupling-Decoupling Mechanism across the Plate Interface during Ultra-hot Subduction Infancy: Insights from Metamorphic Sole Rocks and Wedge Mantle Peridotites of the Manipur Ophiolite Belt, NE India.	Bisworanjan Pradhan <i>IIT Kharagpur</i>
	Geochemical and Isotopic Insights into the Proterozoic Stromatolites: Implications for Early Earth Environments and Astrobiology	Preeti K <i>IIST, Thiruvananthapuram</i>
	High to Ultra-High Temperature Metamorphism in the Madurai Block, Southern Granulite Terrane: Petrochronological Insights from Metapelitic Granulites in Andipatti	Debasish Borah <i>IISER Kolkata</i>
The 'Marginal Contact Zone' (MCZ): its origin and importance in unravelling the timing of dyke intrusion within polydeformed Chaibasa metasedimentary rocks near Ghatsila Ferrey ghat, Jharkhand, India.	Sourav Mitra <i>Jadavpur University</i>	
6:30 - 7:30 Cultural Programme		
7:30 onwards Dinner		

Day 3

Metallogeny

SCHEDULE	TITLE	PRESENTING AUTHOR
SESSION 12: Chair (Prof Mihir Deb and Prof R.Krishnamurthi)		
9:30 - 9:50	Lithium Occurrence, Mineralogy, Different Types of Deposits, and Exploration Strategies with Special Reference to India	Dr. V. Balaram <i>CSIR-NGRI, Hyderabad</i>
9:50 - 10:05	An atmospheric source of sulfur recorded in the Mesoarchean Kundarkocha gold deposit, Singhbhum Craton	Dr. Rajarshi Chakravarti <i>IIT Roorkee</i>
10:05 - 10:20	How F and B control wolframite mineralization in granitic systems: insights from ore camps in NW India	Dr. S. Bhattacharya <i>IISER Mohali</i>
10:20 - 10:35	Fracture controlled vein type multi-phase mineralization from Chitral outlier, Eastern Dharwar Craton, India: Inferences from Mineralogical and textural evolution	Dr. Sneha Mukherjee <i>NCESS, Thiruvananthapuram</i>
10:35 - 11:00 TEA		
SESSION 13: Chair: (Dr. V.Balaram and Prof. A.S Venkatesh)		
11:00 - 11:20	Hydrothermal Alteration and Fluid Inclusion studies of the Paramanahalli Gold Deposit, Chitradurga greenstone belt, Karnataka, India	Prof. Rajagopal Krishnamurthi <i>IIT Roorkee</i>
11:20 - 11:35	Carbonate REE composition, positive Eu/Eu* anomaly and Sr isotope systematics, auriferous quartz carbonate veins, Chigargunta Gold Deposit, Kolar Greenstone Belt, Dharwar craton, India: Implication to the source of gold bearing ore fluids	Prof. S. Sarangi <i>IIT-ISM, Dhanbad</i>
11:35 - 11:50	Geochemically distinct basalts of Panjal Traps record transition from sub-continental lithospheric mantle to sub-lithospheric mantle melting regime	Dr. Ashutosh Pandey <i>IISER Thiruvananthapuram</i>
11:50 - 12:05	Vanadium Mineralization in the Carbonaceous Phyllites of Khetabari Formation of Arunachal Pradesh Himalayas: Insights for Graphite controlled Adsorption	Dr. Samarendra Sahoo <i>GSI</i>
12:05 - 12:20	Sequence of formation of Fe-Mn deposits from a hydrothermally altered carbonatite and apatite rich rocks from parts of SPSZ, West Bengal	Dr. Nandini Dasgupta <i>Jadavpur University</i>
Session 14: POSTER (Chair: Prof S.Sarangi, Dr S.Bhattacharya and Dr. R.Chakravarthi)		
12:20 - 1:00	Constraining the redox conditions of Archean Ocean from X-Ray diffraction analyses of Banded Iron Formation, Bundelkhand Craton, India.	Akhil K K <i>IISER Bhopal</i>
	Influence of source rock and anatectic processes on metal fertility of tungsteniferous Balda granite in Sirohi region, northwest India	Jithendra Kumar Roy <i>IISER Mohali</i>
	Multistage gold mineralization at the Lawa gold deposit, North Singhbhum Mobile Belt, eastern India: Insights from alteration mineralogy and pyrite geochemistry	Paromita Banerjee <i>IIT Roorkee</i>
	Preliminary study of Nb-Ta pegmatites in Ajmer region, NW India	Prakash Kumar Sahoo <i>IISER Mohali</i>
	Stages of deformation and mineralization associated with veins of Jahaz uranium deposit, North Delhi Fold Belt, Rajasthan, India	Priyanka Mishra <i>IIT Roorkee</i>
	The Lost Lithospheric Roots of the Indian Subcontinent	Amarjith Bhagat <i>SPPU, Pune, India</i>

SCHEDULE	TITLE	PRESENTING AUTHOR
12:20 - 1:00	The nature of the lower oceanic crust at ultraslow spreading ridges: constraints from gabbroic samples recovered from Southwest Indian Ridge	Archisman Dhar <i>University of Calcutta</i>
	The 62.5 Ma Dongri-Uttan rhyolite sequence, Mumbai area, Panvel flexure zone: late-Deccan effusive-explosive silicic eruptions during India-Seychelles continental breakup	Arunodaya Shekhar <i>IIT Mumbai</i>
	Geochemical and Geochronological Insights into 2.36 Ga and 1.88 Ga Paleoproterozoic Mafic Magmatism in the Bastar Craton, India	Aurovinda Panda <i>CSIR-NGRI, Hyderabad</i>
	Widespread and abundant interstitial silicic glasses in tholeiitic dykes of the Konkan Plain, western Deccan Traps: implications for silicic magma genesis in continental flood basalt provinces	B. Asta <i>IIT Mumbai</i>
	Emplacement and Deformation of Kalpetta Granite: A Magnetic and Petrographic Perspective	C.P Favas <i>Univ. of Kerala, Thiruvananthapuram</i>
	Tracking Subduction Initiation to Intraplate magmatism within the Neo-Tethys: Insights from the Manipur Ophiolite Belt	Deep Das <i>IIT Kharagpur</i>
	Petrography and Mineral Chemistry of Phoscorite and Syenite from Koppal Alkaline Complex, Eastern Dharwar Craton, Southern India	Husna H <i>IISER Tirupati</i>
	Geochemical characteristics of volcano-sedimentary rocks of the Mahakoshal Group, central India	Kamaal Parvez <i>AMU</i>
Evidence of calc-alkaline magmatism in the Salem Mafic-Ultramafic Complex, southern granulite terrane, India	M.R. Nandu <i>Univ. of Kerala</i>	

1:00 - 2:00 LUNCH

2:00 - 3:30 PANEL DISCUSSION AND VALEDICTORY SESSION

3:30 - 4:00 HIGH TEA



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