Curriculum Vitae: Sisir Kanti Mondal

Born: 25.12.1969, Indian Citizen

Professional portfolio and websites:

- ORCiD: https://orcid.org/0000-0003-1354-6937
- LinkedIn: https://www.linkedin.com/in/sisirm/
- Google Scholar: Google Scholar Citations
- Web-AMNH: https://www.amnh.org/research/staff-directory/sisir-mondal
- Web-Jadavpur University: https://jadavpuruniversity.in/faculty-profile/sisir-mondal/

Contact:

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Current positions:

- Professor, Department of Geological Sciences, Jadavpur University (since 2012)
- Associate Editor, Ore Geology Reviews (Elsevier, since 2016)
- Associate Editor, Journal of Asian Earth Sciences (Elsevier, since 2020)
- Research Associate - adjunct faculty level honorary appointment through the AMNH senate, American Museum of Natural History, NYC, USA (since 2008)
- Member, Editorial Board, Mineral Geochemistry Specialty Section of Frontiers in Geochemistry (since 2023)

Member of faculty selection and other designated committees:

- Expert-External Evaluator of UTU-GreDiT doctoral researcher applications, University of Turku, Finland, 2024
- PhD Thesis Examiner, Banaras Hindu University, Banaras, India, 2023
- PhD Thesis Examiner, Manipur Central University, India, 2022
- CSIR-Director-General's Nominee of Selection Committee, CSIR-IIMT, Bhubaneswar, 2019
- External evaluator for Chair Professor appointment, IIT-Bombay, 2018
- Rector's Nominee in the Selection Committee, Pondicherry University, India, 2016
- Member of the 'Nominations Committee', Geochemical Society (GS, USA) 36 months, 2018-2020
- Secretary, Commission on Ore Deposits in Mafic & Ultramafic Rocks, International Association of the Genesis of Ore Deposits (IAGOD), 2013-2017
- Regional Councilor India, IAGOD, 2013-2016

Featured in a textbook for kids

2006: Contributed to and featured as a Scientist in a textbook for kids (Grade 4) published by Macmillan/ McGraw-Hill, New York City. It was a project by the National Center for Science Literacy, Education and Technology under the Education Department of the American Museum of Natural History (AMNH), and promoted by the AMNH and NASA. This book was initially circulated to elementary schools in California in 2007 and nationwide in the USA in 2008 (available worldwide). It was a part of the teaching materials for the school kids of Grade 4.

Field of specialization & research interest:

- Specialization: Mineral Resources and Formation Processes
  Ore Petrology-Geochemistry-Metallogeny
- Research interest:
  - Earth's evolutionary processes and critical metals such as Platinum-Group Elements (PGE: Pt, Pd, Rh, Os, Ir, Ru), Ni, Cu, Co, Cr, Ti, and V endowments.
  - Ultramafic-Mafic Rocks of Layered Mafic Intrusions and Ophiolitic Complex, Komatiites, Continental Flood Basalts, Mantle Xenoliths
  - Geochemistry of Platinum-Group Elements (PGE) and Os Isotopes
  - Sustainable Resourcing of PGE: Primary Distribution and Secondary Dispersion
  - Exploration of PGE, Ni, Cu, Co, Sc, Au, REE in mine waste materials and tailings and weathering profile (laterite)

Education & research:

01/2013-03/2013: Awarded JSPS Invitational Fellowship (short-term) as a JSPS Fellow under the 'Overseas Researchers with an Excellent Record of Research Achievements', Kanazawa University (Japan), JSPS host: Prof. Shoji Arai

03/2008-04/2010: Conducted collaborative research as a NordCEE Senior Postdoc, Nordic Center for Earth Evolution (NordCEE), University of Copenhagen, Research supervisor: Prof. Minik Rosing

07/2004-07/2006: Conducted postdoctoral research as an AMNH Postdoc, American Museum of Natural History, New York City, USA, Research supervisor: Prof. Edmond Mathez

03/2002-02/2003: Conducted postdoctoral research with DST-BOYSCAST fellowship, Indiana University, Bloomington, USA, Research supervisor: Prof. Edward Ripley

01/2000 (awarded): PhD in Science, Jadavpur University, Kolkata, India. Thesis title: 'Study of chromite, sulfide, and noble metal mineralization in the Precambrian Nuasahi ultramafic-mafic complex, Keonjhar district, Orissa, India'; Supervisor: Prof. TK Baidya

1991-1993: MSc in Applied Geology, Jadavpur University, Kolkata, India; Dissertation: 'Ore geological aspects of the Chendapathar tungsten deposit, Bankura, India'; Supervisor: Prof. TK Baidya

1988-1991: BSc, Jadavpur University, India; Geology (major), Physics and Mathematics

Employment & work experience:

07/2012-present: Professor, Dept. of Geological Sciences, Jadavpur University

01/2020-01/2022: HEAD, Department of Geological Sciences, Jadavpur University

07/2009-07/2012: Associate Professor, Dept. of Geol. Sciences, Jadavpur University

03/2013-09/2013: Guest Teacher, Department of Geology, University of Calcutta

04/2000-06/2009: Lecturer (04/2000-08/2001), Senior Lecturer (09/2001-06/2006), Reader (07/2006-06/2009), Dept. of Geological Sciences, Jadavpur University

09/1997-04/2000: Indian Govt. CSIR Scientist, Central Glass & Ceramic Research Institute, Kolkata

Laboratory visits and laboratory in-charge:

- LA-ICPMS Lab, Oregon State University, USA, in situ Pb isotope analysis; 2006
- Ion-Probe Laboratory, Woods Hole Oceanographic Institute-MIT-LDEO-AMNH-RPI joint facility, USA; in situ trace element analysis; 2004, 2005

- Analytical chemistry laboratory, visited APSARA, Bhabha Atomic Research Centre (BARC, DAE), India. Platinum-group element analysis by INAA and RNAA; 1-month stay, 1997
- Laboratory in charge – UGC-sponsored computer laboratory, Department of Geological Sciences, Jadavpur University, 2000-2002 (3 years)
- Laboratory in-charge – Applied Mineralogy laboratory, Central Glass & Ceramic Research Institute (CSIR-CGCRI), Kolkata, 1997-2000 (3 years)

Awards & fellowships:

- Fellow, West Bengal Academy of Science & Technology (WAST), 2025
- JSPS Fellow, Invitational Fellowship (short-term) under the category 'Overseas Researchers with an Excellent Record of Research Achievements', Kanazawa University, Japan, 2013
- 'Prof. M.R. Srinivasa Rao Petrology Award', Geological Society of India, 'In recognition of valuable outstanding contribution to the field of Petrology', 2010
- NordCEE Postdoctoral Research Fellowship Level 8, Natural History Museum of Denmark, University of Copenhagen, Denmark, 2008-2010 (2 years)
- AMNH Postdoctoral Research Fellowship (NSF and USGS fund), American Museum of Natural History, NYC, USA, 2004-2006 (2 years)
- Indian Government DST-BOYSCAST Fellowship, Indiana University, Bloomington, USA, 2002-2003 (1 year)
- Fellow, Society of Economic Geologists (SEG)
- Fellow, Geological Society of India, Bangalore
- Awarded Prof. N.N. Chatterjee Gold Medal for 'Outstanding Research in Economic Geology'; Asiatic Society, 2000
- CSIR NET Fellowship and eligibility for lectureship, 1993

Recognition & achievement:

- Chair (Sisir Mondal & Laurie Reisberg) Session 7b on 'Mineral resources related to ultramafic-mafic magmas, from Archean to present', Goldschmidt 2021 (4-9 July, Virtual)
- Chair (Jose-Maria Gonzalez-Jimenez, Karen Smit, Suzette Timmerman, Andrea Giulian, Sisir Mondal, Sonja Aulbach) Session 03i, Origin and Evolution of Continental Mantle Lithosphere and its Resource Endowment', Goldschmidt 2019 Barcelona (Spain), 18-23 August
- UKIERI-UGC (British Council-MHRD) collaborative research project (2013-2016) with Hazel Prichard, Cardiff University (UK) under the UK-India Education and Research Initiative (UKIERI) on 'Sustainable resourcing of platinum-group elements (PGE): Studies to understand and locate PGE in chromitites and breccias in India' was selected for one of the top case studies for successful implementation, and showcased in the Indo-UK bilateral summit 2017
- Chair (Sisir Mondal & Bill Griffin) Session 9a, 'Sustainable Resourcing of Ore Deposits Related to Ultramafic-Mafic Magmas', Goldschmidt 2016 (26 June-1 July), Yokohama, Japan (no participation)
- Chair (Sisir Mondal & Bill Griffin), Session 12b 'Processes and Deposits of Ultramafic-Mafic Magmas through Space and Time', Goldschmidt 2015, Prague, 16-21 August
- Selected for the 'Full Professor' position in the Institute of Geochemistry of the Chinese Academy of Sciences under the 'Hundred Overseas Talent Program-Type A', Guiyang, PR China, 2014. Not joined
- Chair (Sisir Mondal & Bill Griffin), Session 13f 'Crust-Mantle Evolution and Changing Patterns of Ore Deposits in the Early Earth', Goldschmidt 2013, Florence (Italy), August 25-30

- Chair, Session ‘Ore Deposits’, National Seminar, Banaras Hindu University, India, 22-24 February 2012
- The scientific article by Mondal & Mathez 2007 (Journal of Petrology 48: 495-510) listed in the ‘Most Read 50 Articles’ of the Journal of Petrology, 2012-2014
- Chair (Wolf-Gang Maier, Sisir Mondal, Marco Fiorentini, Thomas Oberthuer), Session 11b ‘Ore Deposits and the Role of the Lithospheric Mantle’, Goldschmidt 2011, Prague, 14-19 August
- Global Leader, ‘Ore Deposits’ work group, IGCP-SIDA-599 on ‘The Changing Early Earth’, 2011-2014
- Edited Special Issue of ‘Applied Earth Science’ (Transactions of Mining and Metallurgy, Section B, London)featured in ‘Science Faculty Newsletter’ of Copenhagen University (SCIENCEnyt - week 15), 2010
- Selected for the Council for Geoscience South Africa's Research Scientist at Pretoria – not joined /opted for NordCEE fellowship at University of Copenhagen, 2007
- Selected for the Physical Research Laboratory (PRL) ‘Reader’ position under the PLANEX program, Ahmedabad, India. – not joined/ opted for NordCEE fellowship, University of Copenhagen, 2007
- Chair (Chusi Li & Sisir Mondal), Session ‘Magmatic ore deposits elsewhere’, IGCP-479 (UNESCO) Hong Kong University workshop, 2004
- Co-chair (with Mei-Fu Zhou, Chusi Li, Wolf-Gang Maier, Hazel Prichard), Organizing committee, IGCP-479 (UNESCO) Hong Kong University Workshop, Short Course and Field Trip 2004
- Qualified Indian Govt. UPSC examination and selected for the Geologists Service - not joined/ opted to continue with PhD research, 1996
- Qualified National Eligibility Test (NET) of CSIR-UGC; awarded CSIR fellowship for 5 years to conduct research for a PhD and eligibility for lectureship, 1993

Research Projects (grant support):

- 2025 (ISRO RESPOND Research Project for 3 years; submitted 01/2025; under review), Sisir Mondal, Principal Investigator and Dr Swati Singh, ISRO Co-PI on “Advanced Remote Sensing and Geochemical Techniques to Monitor and Characterize Mine Residues”. Submitted to ISRO Center: National Remote Sensing Centre (NRSC), Hyderabad, to conduct collaborative research under the theme **“Earth Observation for Mineral Exploration” focusing on exploration of PGE, Ni, Cu, Co, Au, REE and other value metals from the mine waste materials and tailings of chromite and iron ore deposits in the Singhbhum Craton, India".** Total proposed budget: INR 94 Lac. Two PhD students will be supervised under this project.

- 2023-2026 (36 months), Sisir Mondal - Collaborative Partner: CSIRO-Mineral Resources Discovery Project under the India-Australia New Policy Proposal (NPP) on **Critical Minerals**. CSIRO-PI: Dr Erick Ramanaidou (Australia) on ‘Exploration of Ni, Cu, Co, Sc, PGE in the lateritic profiles over the ultramafic-mafic protoliths in the Singhbhum Craton’. Highlights of the project: (i) Exploration of critical metals Ni, Cu, Co, Sc and PGE in laterites; (ii) Joint Fieldwork and workshops during visits of CSIRO scientists in India; (iii) Field training in India and Laboratory Training in the CSIRO’s laboratories of Sisir Mondal’s dissertation and PhD scholars. Fund for Postdoc to Sisir Mondal to conduct research jointly under CSIRO scientist Erick Ramanaidou and Sisir Mondal; (iv) Seminars by the CSIRO visiting scientists in different Indian academic institutions organized by Sisir Mondal for knowledge sharing under the NPP.

- 2019-2023 (48 months), Sisir Mondal - India Principal Investigator: **'Indo-French Centre for the Promotion of Advanced Research: CEFIPRA project 6007-1 on 'Petrologic, Os isotopic and platinum-group element (PGE) geochemical studies of the Archean komatiites from the Singhbhum craton (eastern India): Implications for chemical differentiation of the Earth and prospects for Ni-Cu-(PGE) sulfide mineralization'.** France PI Dr. Lauri Reisberg, CNRS-CRPG, France; Total budget grant INR ~1.45 Crore; 50% sharing to each PI. Highlights of the project: (i) Fundamental and applied research with one PhD supervision at Jadavpur University, one Postdoc supervision at CRPG and publication of research results; (ii) Research scholar and faculty exchange for training; (iii) Short-course, workshop and seminars during the faculty visits (Sisir Mondal coordinated workshop, seminars during LR's visit); (iv) Procured Stereo Microscope to support the existing MoES funded infrastructure facilities.
- 2019-2020 (24 months), Sisir Mondal, Principal Investigator: MHRD RUSA 2.0 Major Research Project (under the Collective Grant to Jadavpur University) on 'Study of mineral inclusions in chromites of the Archean Nuasahi and Sukinda ultramafic-mafic complexes (eastern India): implications for chromitite genesis and PGE mineralization'. Total budget grant ~10 lakhs and an additional travel fund (~ 1 lakh) to attend the Goldschmidt 2019, Barcelona, Spain.
- 2018-2019 (24 months), Sisir Mondal, Principal Investigator: DST PURSE Phase 2 (under the Promotion of University Research and Scientific Excellence Collective Grant to Jadavpur University). Total budget grant ~10 lakhs to procure advanced research grade microscope for the MoES-funded infrastructure laboratory.
- 2014-2017 (30 months), Sisir Mondal - Principal Investigator: Ministry of Earth Sciences (MoES), Govt. of India funded project conducted at Jadavpur University on 'Investigation on Ni-Cu sulfide potential of the Deccan Basalt using major, trace and platinum-group element (PGE) geochemistry'. Total budget grant: INR ~42 lakhs. Highlights of the project: **This particular project served as leverage funding for the UKIERI-UGC project and helped to establish an infrastructure laboratory equipped with a contamination-free mini ball mill, 3 advanced research-grade microscopes with image analyzer for research work in the field of critical minerals PGE, Ni, Cu, Co, Ti, V, Cr related to ultramafic-mafic system.**
- 2013-2016 (36 months), Sisir Mondal - India Principal Investigator: **UKIERI-UGC (under British Council-MHRD) Research Project conducted with Dr Hazel Prichard (UK PI), Cardiff University under the UK-India Education and Research Initiative (UKIERI) on 'Sustainable resourcing of platinum-group elements (PGE): studies to understand and locate PGE in chromitites and breccias in India'.** Total budget grant: GBP ~60,000, 50% sharing to each PI. Highlights of the project: (i) Discovered a new PGE-rich horizon in India; (ii) Research scholars and faculty exchange for training; (iii) Seminar, short-course, workshops organised by Sisir Mondal for students during Dr Prichard's visits; (iv) Joint field training for research scholars and dissertation students during Prichard's visit; (v) Received a part fund for the procurement of image analysis software.
- 2012-2014 (24 months), Sisir Mondal - Collaborative Partner: Collaborative research project on 'Archean ultramafic-mafic rocks and related chromite, magnetite, Ni-Cu-sulfide and PGE deposits of the western Dharwar Craton, India' with Prof. Susan Reilly and Prof. Bill Griffin that involved a laboratory visit and training of Sisir Mondal's research scholar for in situ trace element analyses on chromite and sulfides using LA-ICPMS in the ARC Centre of Core to Crust Fluid System (CCFS), Macquarie University, Sydney, Australia.

- 2007-2010 (24 months): NordCEE funded project conducted as a senior postdoc at the University of Copenhagen, Denmark, on 'Petrogenesis of Archean ultramafic-mafic rocks and related chromite and PGE deposits from the Indian Cratons: Implications for crustal evolution and ore genesis'. Collaborators: Minik Rosing, Mei-Fu Zhou, Robert Frei, Tod Waight. The project also supported Sisir Mondal's PhD student through sponsorship for participation in the Goldschmidt Conference at Davos.
- 2005-2006 (12 months): USGS-funded project conducted as a postdoc at American Museum of Natural History, NYC, USA on 'Investigation on the geochemical evolution of the Stillwater Complex (Montana, USA) from in-situ Pb isotopic study'; Ed Mathez (PI).
- 2004-2005 (12 months): NSF (USA) funded project conducted as a postdoc at American Museum of Natural History, NYC, USA on 'Origin of the UG2 chromitite layer, Bushveld Complex, South Africa'; Ed Mathez (PI).
- 2002-2003 (12 months): DST-BOYSCAST fellowship for 12 months; research conducted as a visiting scientist at Indiana University, Bloomington, USA on 'Investigation on the geochemical evolution of the 3.1Ga chromitite and PGE deposits of the Singhbhum Craton, India from stable and Os isotopes and petrologic study'. Collaborators: Ed Ripley, Robert Frei, Chusi Li.
- 1994-1997: CSIR-NET PhD thesis project with CSIR Junior and Senior Research Fellowship conducted at Jadavpur University on 'Study of chromite, sulfide, and noble metal mineralization in the Precambrian Nuasahi ultramafic-mafic complex, Keonjhar district, Orissa, India'.

<u>Ongoing network projects</u>:

- 2023-present: 'Ru isotopic study of the Indian chromites and implications for the evolution of the Indian Shield' with Mario Fischer-Gödde and Xiaoyu Zhou, Institut für Geologie und Mineralogie Universität zu Köln, Germany.
- 2024-present: 'Petrogenesis of the Phenai Mata Igneous Complex of the Deccan Large Igneous Province, Gujarat: Implications for Ni-Cu-PGE-Ti-V mineralization'. Collaborator - Mei-Fu Zhou and Ratul Banerjee, CAS - Institute of Geochemistry, Guiyang, China.
- 2022-present: 'Geochemistry of the Deccan subvolcanic mafic rock suite: Implications for Ni-Cu-sulfide and PGE mineralization'. EPMA and SEM-EDS data were acquired.
- 2016-present: 'Petrogenesis of the Late Archean Jagannathpur-Namira-Malangtoli mafic volcanics and related Ni-Cu-sulfide and chromite mineralization, eastern India'. Data acquired.
- 'In-situ major and trace element studies of inclusions in the Archean chromites from India' and 'Origin of chromites in orthopyroxenite from the 3.1Ga Nuasahi ultramafic-mafic complexes (India)'. Initiated under the JSPS Invitational Fellowship; Collaborator - Shoji Arai (Kanazawa University, Japan). Data acquired, manuscript in preparation.
- 'Platinum-group element (PGE) geochemistry of the Precambrian mafic dykes in the Singhbhum Craton, India: implications for Ni-Cu-sulfide mineralization, stabilization of the craton and probable tectonic settings.' Data acquired, manuscript in preparation.
- 'Petrologic, Os isotopic and PGE geochemical studies of sulfide minerals in mantle xenoliths from the west Greenland kimberlites: implications for cratonic mantle evolution'. Initiated under the NordCEE Fellowship; Collaborator - Minik Rosing (University of Copenhagen), Olivier Alard (Australian National University). EPMA data acquired.

- ‘Stable isotopic (O, S, H) studies of the Archean ultramafic-mafic rocks and the chromite deposits of the Nuasahi and Sukinda Complexes in the Singhbhum Craton (India)’. The goal of this project is to trace the various reactions responsible for the hydrothermal alteration of the rock suites in the Archean. Another aspect of this research is to trace the source of S and PGE metals. Initiated under the BOYSCAST Fellowship; Collaborator - Ed Ripley (Indiana University). Data acquired, manuscript in preparation.
- ‘Trace element geochemistry of banded iron formation within the early Archean greenstone belts, Singhbhum Craton (India)’. Initiated under the NordCEE Fellowship; Collaborators - Minik Rosing and Robert Frei (U Copenhagen). Data acquired.

Past research projects:

- 2003-2004: Received India-Government DST-FAST Track Young Scientist scheme, New Delhi for 2 years. Opted for a postdoctoral fellowship at the American Museum of Natural History (AMNH)
- 2003-2004: DST (India)-NSF (USA) International collaborative project with Ed Ripley, Indiana University, short-listed for final oral presentation. Opted for a postdoctoral fellowship at AMNH, NYC
- 1997-2000: Supported in-house and sponsored projects as in charge of the Petrography-Mineralogy Lab in Central Glass & Ceramic Research Institute (CSIR-CGCRI), Kolkata

Current Collaborative Partners:

- Dr Laurie Reisberg, CNRS-CRPG, Nancy, France
- Dr Erick Ramanaidou, CSIRO Mineral Resources Discovery, Australia
- Dr Yoram Tetley, CSIRO Mineral Resources Discovery, Australia
- Dr Olivier Alard, Research School of Earth Sciences, Australian National University, Australia
- Prof Mei-Fu Zhou, U Hong Kong & Chinese Academy of Science, PR China
- Dr Mario Fischer-Gödde, Universität zu Köln, Germany
- Dr Xiaoyu Zhou, Universität zu Köln, Germany
- Dr Jung-Woo Park, Seoul National University, South Korea
- Dr Hannah Hughes, U. Exeter, UK
- Emeritus Prof. Shoji Arai, Kanazawa University, Japan
- Dr Katz Suzuki, JAMSTEC, Japan
- Dr Ratul Banerjee, Institute of Geochemistry, CAS, Guiyang, China
- Dr Sarifa Khatun, Presidency University, Kolkata, India
- Dr Ria Mukherjee, University of New England, Australia
- Dr M Lingadevaru, Central University of Karnataka, India
- Prof Minik Rosing, University of Copenhagen, Denmark
- Distinguished Prof Sue O’Reilly, Macquarie University, Australia
- Distinguished Prof Bill Griffin, Macquarie University, Australia
- Prof Denton Ebel, Division of Physical Sciences, American Museum of Natural History, New York, USA

Membership:

- Fellow & Member, The Society of Economic Geologists (SEG, USA)
- Fellow & Life Member, The Geological Society of India, Bangalore
- Member, The American Geophysical Union (AGU, USA)

- Member, The Geochemical Society (GS, USA)
- Life Member, The Indian Geophysical Union
- Member, The European Association of Geochemistry (EAG) (till 2021)
- Member, The International Association on the Genesis of Ore Deposits (IAGOD), (till 2018)

Seminar/symposium/workshop organization, session convener, and chair:

- Convener (Paula Adánez Sanjuan, *CN-IGME, CSIC*, Cristina Villanova-De-Benavent, *Universitat de Barcelona*, Sisir K Mondal, *Jadavpur University*, Anna Vymazalova, *Czech Geological Survey*, Maria Joao Batista, *Laboratorio Nacional de Energia e Geologia*, and Erick Ramanaidou, *CSIRO*) of Session 5j "Multi-scale Geochemical Mapping for Mineral Resource Management", under Theme 05: Earth Resources and Energy, Goldschmidt 2025, Prague, Czech Republic (*to be held in 6-11 July 2025*).
- Coordinated a one-day workshop on 'Exploration of critical and strategic metals – Exploration targeting and Sustainable development' and led joint fieldwork in the Sukinda belt (Orissa) as a collaborative partner with the Geoscientists of the CSIRO Australia Mineral Resources Discovery Group under the India-Australia New Policy Proposal (NPP) on critical minerals, Department of Geological Sciences, Jadavpur University on October 28, 2024. Speakers: Mr Rajib Deb (TATA Steel Ltd), Prof Sukanta Dey (IISER-Kolkata), Prof Somobrata Acharya (Indian Association for the Cultivation of Science, Kolkata), Dr Erick Ramanaidou (CSIRO-Mineral Resources Discovery, Australia), Dr Yoram Tetley (CSIRO-Mineral Resources Discovery, Australia). 2024
- Coordinated a one-day workshop on 'Exploration of critical minerals and sustainable living' and led fieldwork as a collaborative partner in the Sukinda and Nuasahi belts (Orissa) with the CSIRO-Australia Mineral Resources Discovery Group under the India-Australia New Policy Proposal (NPP) on critical minerals, Department of Geological Sciences, Jadavpur University on December 4, 2023. Speakers: Prof. Sadhan K Ghosh (Jadavpur University), Dr Ratul Banerjee (Jadavpur University), Ms Eileena Das (Jadavpur University), Dr Erick Ramanaidou (CSIRO, Australia), Dr. Giovanni Spampinato (CSIRO, Australia). 2023
- Convener (Y Wang, W Smith, Sisir Mondal) of the Session 'Global PGE deposits' of the 14th International Platinum Symposium, Cardiff University, Wells, UK (2-7 July 2023). 2023
- Coordinated the Departmental Webinar Series (07/2021 - 11/2021), Jadavpur University, Department of Geological Sciences. Speakers: Prof Somnath Dasgupta (INSA Senior Professor, ISI Kolkata), Dr Ilya Vesklar (GFZ, Germany), Prof Cin-Ty Lee (Rice University, USA), Prof Elizabeth Cottrell (Smithsonian Institute, USA), Dr Hannah Hughes (University of Exeter, UK), Prof Marco Fiorentini (University of Western Australia), Dr Nachiketa Rai (IIT-Roorkee), Dr Gyana Ranjan Tripathi (IISER Pune), Prof Koustav Debnath (IIEST-Shibpur), Prof Ahmed Hassan Ahmed (King Abdulaziz University, Jeddah, Saudi Arabia), Dr Ming Tang (Chinese Academy of Science), Dr Swapan Halder (HZL, India), Prof. Mrinal Sen (University of Texas, USA), Prof Lew Ashwal (University of Witwatersrand, South Africa), Prof Helen Williams (University of Cambridge, UK), Prof Debajyoti Paul (IIT-Kanpur). 2021
- Convener (Sisir Mondal and Laurie Reisberg), Session 7b on 'Mineral resources related to ultramafic-mafic magmas, from Archean to present', Goldschmidt 2021 (4-9 July, Virtual)
- Coordinator of Theme 28 (Sisir Mondal, Biswajit Mishra, Jan Pasava, Richard Goldfarb, David Lentz) of the IGC-2020 (New Delhi): Ore forming processes and systems. 2020
- Coordinator of the CEFIPRA workshop under the CEFIPRA Project 6007-1 as the Principal Collaborator (India), Department of Geological Sciences, Jadavpur University on December 3, 2019 (Speakers: Dr Laurie Reisberg of CNRS-CRPG, Prof. Nibir Mandal, Prof Pulak Sengupta, Prof Dipak C Pal (Jadavpur University, India). 2019
- Convener (Jose-Maria Gonzalez-Jimenez, Karen Smit, Suzette Timmerman, Sisir Mondal, Sonja Aulbach, Andrea Giulian), Special Session 03i on 'Origin and Evolution of Continental

Mantle Lithosphere and its Resource Endowment', Goldschmidt 2019 (18-23 August), Barcelona, Spain.

- Coordinator (Sisir Mondal and Dipak C. Pal, Jadavpur University), 3-week 'UGC-Refresher Course' for university faculties on 'Modern Methods in Earth System Science' under the HRDC & Dept. of Geological Sciences, Jadavpur University, Kolkata, India (18 September - 11 October 2018).
- Convener (Sisir Mondal and Bill Griffin), Special Session 9a on 'Sustainable Resourcing of Ore Deposits Related to Ultramafic-Mafic Magmas', Goldschmidt 2016 (26 June - 1 July), Yokohama, Japan (no participation).
- Convener (Sisir Mondal and Bill Griffin), Special session 12b on 'Processes and Deposits of Ultramafic-Mafic Magmas through Space and Time', Goldschmidt 2015, Prague (August 16-21).
- Convener (Sisir Mondal and Bill Griffin), Special session 13f of Goldschmidt 2013, Florence, Italy (August 25-30, 2013) on 'Crust-Mantle Evolution and Changing Patterns of Ore Deposits in the Early Earth'.
- Convener and Organizer (Sisir Mondal, R.H. Sawkar, R.N. Patra), International workshop on 'Magmatic Ore Deposits' 1-8 December 2012, Bangalore, India.
- Convener (Wolf-Gang Maier, Sisir Mondal, Marco Fiorentini, Thomas Oberthuer), Special session 11b of Goldschmidt 2011, Prague (14-19 August) on 'Ore Deposits and the Role of the Lithospheric Mantle'.
- Convener (Sisir Mondal, R.H. Sawkar) and Resource Person, a training course on 'Recent advances on chromite, PGE and Ni-Cu sulfide deposits in the context of ultramafic-mafic rocks of the Dharwar Craton, India'. 5-6 June and 18-31 October 2010, Bangalore, India.
- Member, Advisory Committee, International Symposium and Short Course on 'Magmatic Ore Deposit' (ISMO-2009), Bhubaneswar, India; 1-4 December 2009.
- Coordinator for 2 semesters (2004 Fall-2005 Spring), 'Tuesday Seminar Series', Department of Earth and Planetary Sciences, American Museum of Natural History, NYC.
- Member, organizing committee, 'DST Sponsored-Contact Program for School Children', Jadavpur University, India. 2003

<u>Special volume edited, reference book & editorial board</u>:

- Guest Editor (Sisir Mondal, Laurie Reisberg, José González-Jiménez, Hannah Hughes), Special Volume of the Geological Society (London) on 'Mineral resources related to ultramafic-mafic magmas, from Archean to present: old deposits and new prospects of chromite, Ti-V-magnetite, and Ni-Cu-(PGE) sulfides', 2024/2025.
- Review Editor, Mineral Geochemistry Specialty Section of Frontiers in Geochemistry, 2023-present.
- Associate Editor, Journal of Asian Earth Sciences (Elsevier), 2020-present.
- Associate Editor, Editorial Board of the journal 'Ore Geology Reviews' (Elsevier), 2018-present.
- Member, Editorial Board, Journal of Geological Society of India (Springer), 2008-2018.
- Guest Editor (José González-Jiménez, Andrea Giuliani, Sisir Mondal, Suzette Timmerman, Karen Smit, Sonja Aulbach), Special Issue of Lithos (Elsevier) on 'Origin and Evolution of Continental Mantle Lithosphere and its Resource Endowment'. 2020, 27/01/2021.
- Editor (Sisir Mondal and Bill Griffin), 'Elsevier Book, 10 chapters, 384 pages' on 'Processes and Deposits of Ultramafic-Mafic Magmas through Space and Time', Elsevier, ISBN: 978-0-12811159-8, 2017.
- Guest Editor (Sisir Mondal and Ria Mukherjee), Special Issue of the Ore Geology Reviews (Elsevier) on 'Chromite: Petrogenetic Indicator to Ore Deposits', 2017.

- Guest Editor (Sisir Mondal, Bill Griffin, Wolf-Gang Maier), Special Issue of Lithos (Elsevier) on 'Ore Deposits and the Role of the Lithospheric Mantle'. Vol. 164-167, April 2013.
- Edited (Sisir Mondal), Abstract volume of the conference on 'Recent Developments in the Chromite-Platinum Group Elements and Ni-Cu-sulfides, Ti and V ore fields' under the 'International Workshop on Magmatic Ore Deposits, Dec 1-8, 2012 (Bangalore)'; published by Geological Society of India.
- Guest Editor (Sisir Mondal and Ian McDonald), Special Issue on 'Advances in the understanding of chromitite deposits' of the Applied Earth Science: IMM Transactions Section B, Vol. 118, Numbers 3-4, December 2009. Transactions of the Institutions of Mining and Metallurgy incorporating Proceedings of AusIMM; Institute of Materials, Minerals and Mining (London).
- Guest Editor (Sisir Mondal), Special issue of the Journal of Geological Society of India (Springer) on 'Orthomagmatic ore deposits related to ultramafic-mafic rocks' V.72, No.5, November 2008.

Solicited journal, project and award nomination reviews:

- Journal of Petrology, Geochimica et Cosmochimica Acta, Contributions to Mineralogy and Petrology, GSA-Geology, Precambrian Research, Chemical Geology, American Mineralogist, Lithos, Canadian Mineralogist, Mineralium Deposita, Economic Geology, Ore Geology Reviews, Applied Earth Science: IMM Transactions Section B, Journal of Geological Society (London), Journal of Earth System Science, Journal of Geological Society India
- Review research project, Ministry of Earth Sciences (MoES)
- Review research project, Goa State Research Foundation (GSRF)
- Review research project, South African National Research Foundation
- Review and evaluate the nominations for the MoES Geoscience National Awards
- Review and evaluate the nominations for the petrology award of the Geological Society of India

Invited talk and webinar:

- Presidency University Conference 2025, Kolkata, 21.03.2025
- Australian Consular Kolkata during a meeting with the Australian Deputy High Commissioner of India & the Consul General in Kolkata, 13.10.2023
- Department of Earth Science, Manipur Central University, India, 20.09.2022
- DST-STUTI Workshop at the Department of Geological Sciences, Jadavpur University, India, 14.07.2022
- Webinar, Geological Survey of Finland (GTK), Finland, 29.06.2022
- 'PN Bose Memorial Lecture' on 167th Birth Anniversary of Shri PN Bose, TATA Ltd, Jamshedpur, 12.05.2022
- Webinar, School of Geosciences at the University of the Witwatersrand, Johannesburg, 10.05.2022
- Webinar, Ore Deposits Hub: Deep Dive Seminar, Sponsored by SEG, SGA & IAGOD, 20.04.2022
- Webinar, Australian National University Research School of Earth Sciences, 13.08.2022
- Department of Studies in Earth Science, Mysore University, India, 25.09.2019
- 15th Meeting of CGPB Committee-I, Geological Survey of India (Eastern Region), Kolkata, 26.08.2019
- Metallurgical and Material Engineering Department, Jadavpur University, India, 11.11.2016
- Institute of Geochemistry, Chinese Academy of Sciences, Guiyang, 05.04.2014
- National Seminar in the Banaras Hindu University, India, 23.02.2012

- AMD-BRNS (DAE), Bangalore, India, 22.10.2011
- Annual General Meeting of the Geological Society of India, Banaras Hindu University, India, 23.09.2011
- Special session 10e of the Goldschmidt Conference, Davos, Switzerland, 26.06.2009
- Monthly meeting of the GEUS, GEOCENTER Copenhagen, Denmark, 02.04.2009
- NordCEE Annual Field Conference, Brosarp, Sweden, 30.05.2008
- Department of Applied Geology, Kuvempu University, Karnataka, India, 27.10.2007
- Keynote, National Geophysical Research Institute (NGRI), Hyderabad, 20.07.2007
- Geological Society of India Monthly Meeting, Bangalore, India, 30.05.2007
- Division of Planetary and Geosciences, Physical Research Laboratory, Ahmadabad, India, 13.03.2007
- Department of Earth and Planetary Sciences, American Museum of Natural History, NYC, 06.06.2006

International conference attendance and talk:

- Goldschmidt Conference 2021, Virtual
- Goldschmidt Conference 2019, Barcelona, Spain
- Goldschmidt Conference 2015, Prague, Czech Republic
- Goldschmidt Conference 2013, Florence, Italy
- Goldschmidt Conference 2011, Prague, Czech Republic
- Goldschmidt Conference 2007, University of Koln, Germany
- IGCP-479 Hong Kong University Workshop and Field Conference 2004, Hong Kong
- Geological Society of America (GSA) Annual Meeting 2002, Denver, USA
- International Pt-Symposium 2002, Billings, Montana, USA

International conference attendance and poster (as presenting and lead author):

- AGU Fall Conference 2008, San Francisco, USA
- Goldschmidt Conference 2005, University of Idaho, USA
- Annual Conference of GAC-MAC-SEG 2003, Vancouver, British Columbia, Canada

Training offered as a Resource Person:

- Lectures (3 hrs.) on 'Petrography and Geochemistry of ultramafic-mafic rocks with special emphasis on PGE mineralization', Geological Survey of India (Eastern Region) Training Centre, Kolkata, 2025
- Lectures (3 hrs.) on 'Petrology and Geochemistry of ore deposits (PGE, Ni, Cu, Co, Cr, Ti, V) related to ultramafic-mafic rocks ', Geological Survey of India (Eastern Region) Training Centre, Kolkata, 2024
- Lectures (4 hrs.) and 1-day field training to the geologists (18 participants) of the Orissa Mining Corporation (OMC) in the Geological Survey of India training camp at Jajpur-Keonjhar Road and Nuasahi ultramafic-mafic complex, Orissa, India (5-6 November 2018).
- Lectures and field training to the participants (35 participants) in the Geological Society of India NSB-IIA training course, 18-31 October 2010, Nuggihalli Greenstone belt, Karnataka.
- Laboratory training to the engineers of Saint-Govind Glass India Ltd. in the Refractories Division, Central Glass & Ceramic Research Institute (CSIR-CGCRI), Kolkata, India, 1999.
- Laboratory training to the engineer of Samcor Glass Ltd (India) in the Refractories Division, Central Glass & Ceramic Research Institute (CSIR-CGCRI), Kolkata, India, 1998.

Past & present students:

PhD awarded: 5

- Dr Sarifa Khatun, Assistant Professor, Presidency University, Kolkata, India
- Dr Ria Mukherjee, Lecturer, University of New England, Australia
- Dr Rupam Ghosh, Postdoc, The University of Tokyo, Japan
- Dr Chirasree Bhattacharjee (2023) – She will join a Postdoc
- Dr Ratul Banerjee (2023) - Postdoc, Institute of Geochemistry, CAS, Guiyang
- Research Scholars conducted research and joined the job: 6
- MSc Dissertation supervised: 34; Ongoing: 2
- Internship and undergraduate research trainee: 9

Collaboration with PhD students and Postdocs from abroad and India:

- Dr Cora Paulukat, PhD student of Prof Robert Frei, Copenhagen University, Denmark (Hexavalent Cr Project on the Sukinda Complex)
- Dr Lasse N. Døssing, NordCEE Postdoc, Copenhagen University, Denmark (Hexavalent Cr Project on the Sukinda Complex)
- Dr Alik Majumder, PhD student of Prof Andrew Putnis, University of Münster, Germany (Petrology of Nuasahi dunite and harzburgite)
- Dr Ratul Banerjee, Postdoc with Prof Mei-Fu Zhou, Institute for Geochemistry, CAS, Guiyang, China (Deccan Trap mafic volcanic and sill rocks)
- Dr Xiaoyu Zhou, Postdoc with Dr Mario Fischer-Gödde and Prof Carsten Münker, Universität zu Köln, Germany (Ruthenium isotope study of the Indian chromites and ultramafic-mafic volcanic rocks)
- Shubhankar Barman, PhD student of Dr Anuja Datta, Indian Association for the Cultivation of Science, Kolkata (Structural and Magnetic properties of Magnetite in the PGE-rich Magnetitites from Mesoarchean Nuasahi Igneous Complex (Orissa, Eastern India).

Services:

- Member of the Postgraduate Examination Moderation Committee (Geology), Presidency University, Kolkata, India, 2024
- Expert and External evaluator of UTU-GreDiT doctoral researcher applications (seven candidates), University of Turku, Finland, 2024
- MSc Final Year Dissertation Thesis Viva-Voce Examiner (20 students), IIT-Kharagpur, 2024
- PhD Thesis Viva-Voce External Expert, Banaras Hindu University, Banaras, 2023
- PhD Thesis Examiner, Banaras Hindu University, Banaras, 2023
- MSc Final Year Dissertation Thesis Viva-Voce Examiner (20 students), IIT-Kharagpur, 2023
- Member of the Postgraduate Examination Moderation Committee (Geology), Presidency University, Kolkata, India, 2022
- MSc External Examiner (Igneous & Metamorphic Petrology Papers), Manipur Central University, 2022
- PhD Thesis Viva-Voce External Expert, Manipur Central University, India, 2022
- PhD Thesis Examiner, Manipur Central University, India, 2022
- MSc Final Year Dissertation Thesis Viva-Voce Examiner for 24 candidates IIT-Kharagpur, India, 2022
- Served as an external examiner for PhD candidate's promotional evaluation, Department of Geology and Geophysics, Indian Institute of Technology, Kharagpur, India, 2019
- Evaluator and conducted the Seminar Presentation by the participants of the 74th orientation training program for the teachers of universities and colleges organized by the UGC-HRDC-JU, 12th August 2019, Jadavpur University
- Member of the CSIR-UGC-NET Examination Board, 2011

- Served as referee for faculty appointment at the rank of Assistant Professor in the Department of Earth Sciences, IIT-Roorkee, India (2009), IIT-Bhubaneswar, India (2015), IISER-Kolkata (2013, 2015), IISER-Bhopal (2017)
- Served as referee for faculty appointment, University of the West Indies, Cave Hill Campus, 2007
- Served as an external examiner for PhD candidate's promotional evaluation in the Department of Geology and Geophysics, IIT-Kharagpur, India, 2007

Prior professional experiences as an Indian Government CSIR Scientist:

Served as Indian-Govt. CSIR-Scientist (~Lecturer) in the Refractories Division of Central Glass & Ceramic Research Institute of CSIR-India at Kolkata for the period 9/1997 to 3/2000.

Primary responsibilities:

- Research work considering geological samples and providing service to the refractory and ceramic research.
- In-charge: Petrographic-Microstructure Analysis Laboratory.
- 'Petrographic analysis of ceramic and refractory materials' using a petrologic microscope and image analysis.
- Conducted training programs on 'identification of stone and defects in glass' and 'petrographic studies of refractory and ceramic raw materials' for experts from glass and ceramic industries and students.
- Served as Co-In-charge of examination centres for the CSIR-UGC NET examination at Kolkata, 1997-1999.

Activities related to curating in the museum:

- Under the supervision of Prof. Ed Mathez at the American Museum of Natural History in New York City, I conducted fieldwork in the Eastern Bushveld Complex, South Africa in 2004 and collected ~500 kg of rock samples from two drill cores (DT 28, PK 231) that cutting across the UG2 chromitite layer, the largest PGE deposit in the world, and another one from the Lower Critical Zone (TW-477). These drill core samples were described and documented by me, which are preserved systematically in the AMNH and comprise an important part of the petrology collection of the Museum. A project was completed based on this collection to understand the origin of the UG2 chromitite layer of the Bushveld Complex (Mondal & Mathez, Journal of Petrology 2007, 48, 495-510).
- Worked under the supervision of Prof. Ed Mathez on his Stillwater project funded by the USGS (2005-2006) and collaborated on a Pb isotope study of rocks from the Stillwater Complex designed to provide insight into the origin of its sulfide and PGE ores. For this particular project, I have described and sampled three drill cores (355-16, 355-32, and 791-1) that were originally drilled by AMAX and subsequently acquired by the Stillwater Mining Company. These cores are part of the collections of the American Museum of Natural History, NYC. I have conducted petrographic studies on selected sections of the drill cores and, together with Dr. Mathez, acquired Pb data from Oregon State University using LA ICP-MS.

Travel grants and sponsorships received:

- 2022 - Travel grant and sponsorship from TATA Steel Ltd, Jamshedpur, India and delivered the 'PN Bose memorial lecture'.
- 2022 - Travel grant and sponsorship from the Department of Earth Science, Manipur Central University, India and presented an invited talk.
- 2019 - Travel grant from the MHRD RUSA 2.0 fund of Jadavpur University and attended the Goldschmidt Conference in Barcelona, Spain.

- 2018 - Travel grant and sponsorship from the Geological Survey of India, conducted field training, and delivered lectures in the GSI training camp at Jajpur-Keonjhar Road, Orissa.
- 2015 - Travel grant and sponsorship from the UKIERI fund at Cardiff University, UK, and attended the Goldschmidt Conference in Prague, Czech Republic.
- 2014 - Travel grant and sponsorship for a short visit from the Institute of Geochemistry, Chinese Academy of Sciences, Guiyang and visited the Institute of Geochemistry and presented an invited talk.
- 2013 - Travel grant from the Geochemical Society (US) and INSA New Delhi and attended the Goldschmidt Conference in Florence, Italy.
- 2012 - Travel grant and sponsorship from the organizer of the National Seminar in the Banaras Hindu University, India and presented an Invited talk.
- 2011 - Travel grant from the DST, New Delhi and the Geochemical Society (US) and attended Goldschmidt Conference Prague 2011.
- 2011 - Travel grant and sponsorship from the AMD-BRNS (DAE), Bangalore, India and presented an invited talk.
- 2011 - Travel grant and sponsorship from Banaras Hindu University, India and attended the Annual General Meeting of the Geological Society of India and presented an invited talk.
- 2010 - Travel grant and sponsorship from the Geological Society of India, Bangalore and conducted field workshop in the Nuggihalli chromite deposits, Karnataka.
- 2009 - Travel grant and sponsorship from the NordCEE, University of Copenhagen, Denmark and attended the Goldschmidt Conference 2009, Davos, Switzerland.
- 2008 - Travel grant and sponsorship from the NordCEE, University of Copenhagen, Denmark and attended the AGU Fall Meeting 2008, San Francisco, USA.
- 2007 - Travel grant and sponsorship and delivered a keynote at the PGE conference organized by the National Geophysical Research Institute (NGRI), Hyderabad
- 2007 - Travel grant and sponsorship from the Geological Society of India, Bangalore and delivered an invited talk in the monthly meeting.
- 2007 - Travel grant and sponsorship from the University of Copenhagen, Denmark and visited NordCEE Copenhagen, University of Copenhagen.
- 2007 - Travel grant from the IGCP-479 and attended the Goldschmidt Conference, Universität zu Köln, Germany.
- 2007 - Travel grant and sponsorship from Physical Research Laboratory (PRL), Ahmedabad, India and presented an invited talk.
- 2005 - Travel grant and sponsorship from the NSF project on the Bushveld UG2 chromitite, EPS, American Museum of Natural History, NYC, USA and attended Goldschmidt Conference 2005, Idaho, USA.
- 2004 - Travel and fieldwork support from the NSF project of Prof. Ed Mathez on the Bushveld UG2 chromitite, EPS, American Museum of Natural History, NYC, USA and conducted fieldwork in the Eastern Bushveld Complex, South Africa.
- 2004 - Travel grant from the IGCP project 479 and attended Hong Kong University IGCP-479 workshop. Fieldwork support from the project grant of Prof. Mei-Fu Zhou (U Hong Kong) and visited Emeishan Flood Basalt Province and Panzhihua Ti-magnetite deposits, PR China.
- 2003 - Faculty and project funds, Indiana University, Bloomington and a travel grant from the IGCP project 479, and attended GAC-MAC-SEG Conference, Vancouver, British Columbia, Canada.
- 2002 - Faculty and project funds, Indiana University, Bloomington and attended GSA Meeting, Denver, USA.
- 2002 - Faculty and project funds, Indiana University, Bloomington and attended International Pt-Symposium, Billings, Montana, USA.

LIST OF PUBLICATIONS: SISIR KANTI MONDAL

Total Google Scholar Citations: 1659 h-index: 20 i10-index: 32
ORCiD id: https://orcid.org/0000-0003-1354-6937

Publications: Articles 53, Conference Abstracts 59
Book Edited: 2; Special Issue of Journals Edited: 6
Other (news, reminiscences): 13

a. Research Papers Published - Peer-reviewed articles
*Corresponding author, #student supervision

01. #Banerjee, R., *Mondal S.K. (03/2025): Origin of Ni-Cu (Co) sulfides in the 3.5 Ga komatiites from the Gorumahishani greenstone belt, Singhbhum Craton (eastern India). *In review in* the Journal of Earth System Science. Peer-Reviewed Article.
02. Khatun, S., Mondal, S.K. (in review, 7/2024): Modification of high-Mg and high-Cr chromite within the Katpal breccia zone of the Mesoarchean Sukinda Complex (India): Implications for PGE-Ni-Cu-mineralization. 'Mineral Resources Special Volume 552' of the Geological Society, London. Peer-Reviewed Article.
03. #Bhattacharjee, C., *Mondal, S.K. (moderate revision, 01/2025): Mineral-chemistry of silicates, Fe-Ti oxides and sulfides in gabbro and magnetitite of the Mesoarchean Nuasahi Complex, Singhbhum Craton (India): Thermometry and oxygen fugacity of re-equilibration and implications for ore mineralization. 'Mineral Resources Special Volume 552' of the Geological Society, London.
04. #Bhattacharjee, C., *Mondal, S.K., Reisberg, L. (2025): Major and trace element geochemistry and 3.0 Ga Sm-Nd age for the gabbro-norite-anorthosite cumulates of the Mayurbhanj Complex (eastern India): Petrogenesis of the mafic igneous complex and implications for sulfide and Fe-Ti oxide mineralization. Available online 28 Feb 2025. Peer-Reviewed Article, # PhD student. https://www.lyellcollection.org/doi/abs/10.1144/SP552-2024-82
05. 'Mineral Resources Special Volume 552' of the Geological Society, London. Peer-Reviewed Article, *Corresponding author, # PhD student.
06. Zhou, X., #Banerjee, R., Reisberg, L., Mondal, S.K. (2025): Source composition or melting effect: New evidence from Archean komatiites concerning the origin of low highly siderophile element abundances in Earth's mantle. Geochimica et Cosmochimica Acta 390 211–231. https://doi.org/10.1016/j.gca.2024.12.004 Peer-Reviewed Article, # PhD student.
07. #Banerjee, R., *Mondal S.K. (2024): Platinum-Group Elements (PGE) and Nb-Ta geochemistry of the Deccan basalts from Kumbharli Ghat section and the KBH-7 borehole of the Koyna Seismic Zone, Maharashtra (India). In Press, 'Mineral Resources Special Volume 552' of Geological Society, London. Peer-Reviewed Article, *Corresponding author, # PhD student. https://doi.org/10.1144/SP552-2023-100
08. Vishnu, K., Mukherjee, R., Rose, R., Mondal, S.K., Lingadevaru, M. (2024). Major, trace and platinum-group element geochemistry of Mesoarchean komatiites from the Banasandra greenstone belt, Western Dharwar craton (southern India): Implications for multi-stage plume magmatism in generating compositionally diverse komatiites. International Geology Review, 1-23. https://doi.org/10.1080/00206814.2024.2341433
09. #Banerjee, R., $Biswas, B.K., Mondal, S.K. (2023): Origin of alteration patterns in accessory chromites of ultramafic rocks from Kudada area, East Singhbhum district (Jharkhand, India). Journal of the Geological Society of India (Springer), 99:345-356. # PhD student, $MSc dissertation student. Peer-Reviewed Article, https://doi.org/10.1007/s12594-023-2317-x

10. #Banerjee, R., *Mondal S.K., Reisberg, L., Park, J.W. (2022): Fractionation of trace and platinum-group elements during metamorphism of komatiitic chromites from the early Archean Gorumahishani greenstone belt, Singhbhum Craton (eastern India). Contributions to Mineralogy and Petrology, 08/2022, 177:75. Peer-Reviewed Article, *Corresponding author. # Ph.D. student. https://doi.org/10.1007/s00410-022-01943-4
11. #Dey, A. *Mondal, S.K. (2022): Origin of Fe-Ni-sulfide and oxide minerals in the 1.77Ga mafic dyke, Singhbhum Craton (India). Geological Society, London, Special Publications, Volume 518, Pages 553-574. Peer-Reviewed Article, *Corresponding Author. # Ph.D. student. https://doi.org/10.1144/SP518-2021-4
12. #Rose, R., Mukherjee, R., Frei, R., Mondal, S.K., Lingadevaru, M. (2022): Petrogenesis of the Late Archean Pillow Basalts from the Chitradurga Greenstone Belt, Western Dharwar Craton (southern India). Journal of Earth System Science (Springer), 2022/4, 131: 95, Peer-Reviewed Article, #MSc dissertation student under R. Mukherjee. https://doi.org/10.1007/s12040-022-01818-z
13. #Bhattacharjee, C., *Mondal, S.K. (2021): Major and trace element geochemistry of Fe-Ti oxide and sulfide minerals in the Archean Mayurbhanj mafic igneous complex, Singhbhum Craton (India): thermometry and oxygen fugacity of re-equilibration, and implications for ore mineralization. Ore Geology Reviews, 131, 104005; Available online 22 January 2021. Peer-Reviewed Article, *Corresponding author. # Ph.D. student. https://doi.org/10.1016/j.oregeorev.2021.104005
14. #Datta, P., Mukherjee, R., Mondal, S.K., Lingadevaru, M. (2021): Origin of sulfide-bearing late Archean komatiitic suite of rocks in the Shankaraghatta ultramafic-mafic belt, Western Dharwar Craton (India). Ore Geology Reviews. Available online 30 July 2021, 104375. Peer-Reviewed Article. # Ph.D. student under Ria Mukherjee. https://doi.org/10.1016/j.oregeorev.2021.104375
15. González Jiménez. J-M., Mondal, S.K., Ghosh, B., Griffin, W. L., O'Reilly, S.Y. (2020): In situ Re-Os isotope systematics of chromitites and host lherzolites of the Andaman ophiolite, India. Minerals, Feature Paper in Issue 8, Vol. 10. https://www.mdpi.com/2075-163X/10/8/686 Peer-Reviewed Article.
16. #Banerjee, R., *Mondal, S.K. (2020): Bulk-rock major and trace element geochemistry of the Deccan basalts from the KBH-7 borehole, Koyna Seismic Zone (Western Ghats, India): assimilation and fractional crystallization, nature of crustal contamination and sulfide saturation of magma. Lithos, Available online 2 November 2020, 105864. Peer-Reviewed Article, *Corresponding author. #MSc dissertation student. https://doi.org/10.1016/j.lithos.2020.105864
17. #Datta, P., *Mondal, S.K. (2020): Compositional variations, thermometry and possible parental magmas of Archean chromites from the Sargur schist belt, Western Dharwar Craton (Southern India). Lithos, Available online 12 November 2020, 105867. Peer-Reviewed Article, *Corresponding author. #MSc dissertation student. https://doi.org/10.1016/j.lithos.2020.105867
18. Srivastava, R.K., Söderlund, U., Ernst, R.E., Mondal, S.K., Samal A.K. (2019): Precambrian mafic dyke swarms in the Singhbhum craton (eastern India) and their links with dyke swarms of the eastern Dharwar craton (southern India) – Reply. Precambrian Research 329: 23-25, First online 18 December 2018. Peer-Reviewed Article. https://doi.org/10.1016/j.precamres.2018.12.016
19. Srivastava, R.K., Söderlund, U., Ernst, R.E., Mondal, S.K., Samal A.K. (2019): Precambrian mafic dyke swarms in the Singhbhum craton (eastern India) and their links with dyke swarms of the eastern Dharwar craton (southern India). Precambrian Research 329: 5-17. First online 22 August 2018. Peer-Reviewed Article. https://doi.org/10.1016/j.precamres.2018.08.001

20. *Mondal, S.K., #Khatun, S., Prichard, H.M., Satyanarayanan, M., Ravindra Kumar, G.R. (2019): Platinum-group element geochemistry of boninite-derived Mesoarchean chromitites and ultramafic-mafic cumulate rocks from the Sukinda Massif (Orissa, India). Ore Geology Reviews 104, 722-744. First online 30 November 2018; Peer-Reviewed Article, *Corresponding author. # Ph.D. student. https://doi.org/10.1016/j.oregeorev.2018.11.027
21. Prichard, H.M., *Mondal, S.K., Mukherjee, R., Fisher, P.C., Giles, N. (2018): Geochemistry and mineralogy of the Pd in the magnetitite layer within the upper gabbro of the Mesoarchean Nuasahi Massif, (Orissa, India). Mineralium Deposita 53:547–564. First online 20 July 2017. Peer-Reviewed Article, *Corresponding author. https://doi.org/10.1007/s00126-017-0754-4
22. #Majumdar, A.S. Hövelmann, J., Mondal, S.K., Putnis, A. (2016): The role of reacting solution and temperature on compositional evolution during harzburgite alteration: Constraints from the Mesoarchean Nuasahi Massif (eastern India). Lithos 256–257: 228–242. # Ph.D. student under Andrew Putnis. Peer-Reviewed Article. https://doi.org/10.1016/j.lithos.2016.04.016
23. #Majumdar, A.S., Hövelmann, J., Vollmer, C., Berndt, J., Mondal, S.K., Putnis, A. (2016): Formation of Mg-rich olivine pseudomorphs in serpentinized dunite from the Mesoarchean Nuasahi Massif, eastern India: Insights into the evolution of fluid composition at the mineral-fluid interface. Journal of Petrology 57, 3-26. Peer-Reviewed Article. # Ph.D. student under Andrew Putnis. https://doi.org/10.1093/petrology/egv070
24. #Paulukat, C., Døssing, L.N., Mondal, S.K., Voegelin, A.R., Frei, R. (2015): Oxidative release of chromium from Archean ultramafic rocks, its transport, and environmental impact - a Cr isotope perspective on the Sukinda Valley ore district (Orissa, India). Applied Geochemistry 59, 125-138. Peer-Reviewed Article. # Ph.D. student under Robert Frei. https://doi.org/10.1016/j.apgeochem.2015.04.016
25. #Mukherjee, R., Mondal, S.K., González-Jiménez, J.M., Griffin, W.L., Pearson, N.J., O' Reilly, S.Y. (2015): Trace-element fingerprints of chromite, magnetite, and sulfides from the 3.1Ga ultramafic-mafic rocks of the Nuggihalli greenstone belt, Western Dharwar craton (India). Contributions to Mineralogy and Petrology, 169(59); Peer-Reviewed Article. # Ph.D. student. https://doi.org/10.1007/s00410-015-1148-1
26. #Mukherjee, R., Mondal, S.K., Zhong, H., Bai, Z-J., Balaram, V., Ravindra Kumar, G.R. (2014): Platinum-group element geochemistry of komatiite-derived 3.1Ga ultramafic-mafic rocks and chromitites from the Nuggihalli greenstone belt, Western Dharwar craton (India). Chemical Geology 386: 190-208. Peer-Reviewed Article. # Ph.D. student. https://doi.org/10.1016/j.chemgeo.2014.08.007
27. #Khatun, S., *Mondal, S.K., Zhou, M.F., Balaram, V., Prichard, H.M. (2014): Platinum-group element (PGE) geochemistry of Mesoarchean ultramafic-mafic cumulate rocks and chromitites from the Nuasahi Massif, Singhbhum Craton (India). Lithos 205: 322–340. # Ph.D. student. Peer-Reviewed Article, *Corresponding author, https://doi.org/10.1016/j.lithos.2014.07.013
28. #Mukherjee, R., *Mondal, S.K., Frei, R., Rosing, M.T., Waight, T.D., Zhong, H., Ravindra Kumar, G.R. (2012). The 3.1 Ga Nuggihalli chromite deposits, Western Dharwar craton (India): geochemical and isotopic constraints on mantle sources, crustal evolution and implications for supercontinent formation and ore mineralization. Lithos 155: 392-409. Peer-Reviewed Article, *Corresponding author, # Ph.D. student. https://doi.org/10.1016/j.lithos.2012.10.001
29. #Mukherjee, R., *Mondal, S.K., Rosing, M.T., Frei, R. (2010): Compositional variations in the Mesoarchean chromites of the Nuggihalli schist belt, Western Dharwar craton (India): potential parental melts and implications for tectonic setting. Contributions to Mineralogy and Petrology 160: 865-885. Peer-Reviewed Article, *Corresponding author, # MSc dissertation student. (Cited by 131), https://doi.org/10.1007/s00410-010-0511-5

30. *Mondal, S.K., Zhou, M.-F. (2010): Enrichment of PGE through the interaction of evolved boninitic magmas with early formed cumulates in a gabbro-breccia zone of the Mesoarchean Nuasahi massif (eastern India). Mineralium Deposita 45: 69-91. Peer-Reviewed Article, *Corresponding author, https://doi.org/10.1007/s00126-009-0264-0
31. Srivastava, R.K., Mondal, S.K., Balaram, V., Gautam G.C. (2010): PGE geochemistry of low-Ti high-Mg siliceous mafic rocks within the Archean central Indian Bastar Craton: Implications for magma fractionation. Mineralogy and Petrology 98: 329-345. Peer-Reviewed Article. https://doi.org/10.1007/s00710-009-0103-0
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e. Book edited

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f. Conference abstracts

International conference abstracts (*presenting author)

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02. *Nasreen, A., Mondal, S.K. (*in press,* 2025): Mineral chemistry of dunite-harzburgite-orthopyroxenite-chromitite protoliths of thick laterites from the Archean Sukinda Complex, Singhbhum Craton (India): Implications for critical metal exploration. Goldschmidt 2025 Conference, Prague.
03. Banerjee, R., Mondal, S.K., Zhou, X., Reisberg, L.C. (2023): Petrogenesis of the 3.51 Ga komatiites from the Gorumahishani greenstone belt, Singhbhum Craton (eastern India). AGU23. Abstract.
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05. Bhattacharjee, C., Mondal, S.K., Reisberg, L. (2022): Petrogenesis of the 3.1Ga Mayurbhanj Gabbro-Anorthosite Complex, Singhbhum Craton (India): Magmatism in an active continental margin setting. AGU Fall Meeting 2022, held in Chicago, IL, 12-16 December 2022, id. DI12B-0010. Abstract.
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10. *Bhattacharjee, C., Mondal, S.K. (2020): Origin of Sulfides in Gabbros from the Archean Mayurbhanj Mafic Igneous Complex, Singhbhum Craton, (Eastern India). International Geological Congress 2020 (IGC2020), New Delhi, India. Abstract.
11. *Banerjee, R., Mondal, S.K. (2020): Compositional variation and patterns of alteration in chromites of Archean komatiites from Kapili area, Gorumahisani greenstone belt, Singhbhum Craton (eastern India). International Geological Congress 2020 (IGC2020), New Delhi, India. Abstract.
12. *Choudhury, D., Mondal, S.K. (2020): Mineral inclusions in Archean chromites from the Sargur greenstone belt, Western Dharwar Craton (southern India). International Geological Congress 2020 (IGC2020), New Delhi, India. Abstract.
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14. *Biswas, B.K., Mondal, S.K. (2020): Patterns of alteration in chromites from ultramafic rocks of Kudada area, East Singhbhum district (Jharkhand, eastern India). International Geological Congress 2020 (IGC2020), New Delhi, India. Abstract.
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16. Barman, S., Mondal, S.K., *Datta, A. (2019): Structural and Magnetic properties of Magnetite in the PGE-rich Magnetitite Ores from the Mesoarchean Nuasahi Igneous Complex (Orissa, Eastern India). Poster presentation at SAIS Symposium 2019, Organized by the School of Applied and Interdisciplinary Sciences, Indian Association for the Cultivation of Science. March 8-9, 2019.
17. *Mondal, S.K., Das, E., Banerjee, R., Reisberg, L. (2019): Trace Element in Chromites of Komatiites from the Archean Gorumahisani Greenstone Belt, Singhbhum Craton (India). Goldschmidt 2019-Barcelona (Spain). Abstract with programs.
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31. *Mondal, S.K., Arai, S., Payot, B.D., Tamura, A. (2013): Lithospheric mantle connection of clinopyroxene inclusions in chromites from the Archean Nuasahi ultramafic-mafic complex (India). GOLDSCHMIDT 2013-Florence (Italy): Abstract with programs; abstract in Mineralogical Magazine page 1779. Goldschmidt Grant award to Mondal.
32. *Mukherjee, R., Mondal, S.K., González-Jiménez, J. M., Griffin, W.L., O'Reilly S.Y., Pearson, N.J. (2013): Trace-element fingerprints of chromites and sulfides from the Archean Nuggihalli greenstone belt, western Dharwar craton, India. GOLDSCHMIDT 2013-Florence (Italy): Abstract with programs; abstract in Mineralogical Magazine page 1802. PhD research scholar supervision. Goldschmidt Grant award to Mukherjee.
33. *Døssing, L.N., Dideriksen, K., Crowe, S.A., Mondal, S.K., Bovet, N., Frei, R. (2012): Chromium isotope fractionation during mobilization and transport in Sukinda Valley, India. GOLDSCHMIDT 2012-Montreal, Canada: Abstract with programs. Abstract 01153, June 24-29, 2012. Mineralogical Magazine, Abstract 1655.
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39. *Mukherjee, R., Mondal, S.K. (2009): Indian chromite deposits from a global perspective. International Symposium on Magmatic Ore Deposits (ISMO-2009), Bhubaneswar, India; 1-4 December 2009. Abstract with programs. Extended abstract. MSc dissertation supervision. Best paper presentation award to Mukherjee.
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45. Mondal, S.K., Frei, R., Ripley, E. M. (2006): Os isotope systematics of Mesoarchaean chromitite - PGE deposits in the Singhbhum craton of India: Implications for the evolution of subcontinental lithospheric mantle. Eos Trans. AGU, 87(36), Jt. Assem. Suppl., Abstract V43A-01. Abstract, no participation.
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48. Mondal, S.K., Ripley, E.M., Li, C., Ahmed A.H., Arai, S., Liipo, J., Stowe, C. (2003): Oxygen isotopic compositions of Cr-spinels from Archaean to Phanerozoic chromite deposits. GOLDSCHMIDT 2003 (Japan); Abstract published in Geochimica et Cosmochimica Acta

Supplement, Vol. 67, Issue 18, p.301. Abstract, no participation. Journal Impact Factor 4.245.

49. *Mondal, S.K., Ripley, E.M., Li, C., Sarkar, A. (2003): Chemical composition and significance of Cr-spinel in Archean greenstone belt ultramafic-mafic intrusive and extrusive rocks of the Singhbhum Craton, Eastern India. GAC-MAC-SEG joint meeting at Vancouver, 25-28 May 2003, Canada, Abstract No. 616; Abstract with programs.
50. *Mondal, S.K., Ripley E. M., Li, Chusi, Mariga, J. (2002): Stable isotopic studies of the chromite, Fe-Cu-Ni-sulfide and PGE-mineralized Archean Nuasahi ultramafic-mafic complex, Orissa, India, GSA Annual meeting at Denver, October 2002, USA, Paper no. 52-4, Session No. 52, Abstract with programs.
51. *Chakraborti, O.P., Das, P.K., Mondal, S.K. (1999): Study of indentation-induced cracks in $MoSi_2$-reaction bonded SiC ceramics. International conference on fatigue and fracture of glass, ceramics and composites, 22-23 September 1999, Material Research Society of India, Indian Institute of Cultivation of Science, Calcutta. Abstract no. CMC-4. Abstract with programs.

National conference/workshop abstracts (*presenting author)

01. *Mondal, S.K., #Prichard, H.M. (2025): Distribution of Os-Ir-Ru-alloys in Archean chromitites of the Singhbhum Craton (India): Origin from a depleted mantle source. National Seminar on 'Dynamic Processes of the Earth: from Deep Interior to Surface', March 21 & 22, 2025, Presidency University, India. #Deceased
02. Ghosh, D., *Banerjee, R., *Bera, P., Mondal, S.K. (2016): Petrographic Character of the Deccan Basalt in the Koyna Bore Hole, India. pp 203-207. Abstract with programs. Seminar abstract volume 'Developments in Geosciences in the Past Decade - Emerging Trends for the Future & Impact on Society' & Annual General Meeting of the Geological Society of India, IIT-Kharagpur, 21-23 October 2016. MSc dissertation student supervision.
03. *Bhattacharjee, S., Mondal, S.K. (2016): Detrital chromites: parental magmas and probable tectonic settings. pp 79-82. Abstract with programs. Seminar abstract volume 'Developments in Geosciences in the Past Decade - Emerging Trends for the Future & Impact on Society' & Annual General Meeting of the Geological Society of India, IIT-Kharagpur, 21-23 October 2016. BSc internship supervision.
04. *Bank, S.P., Mondal, S.K., Satyanarayanan, M. (2016): Origin of spherulites in the Proterozoic Jagannathpur-Malangtoli mafic volcanic suite from the Singhbhum craton, India. pp 47-50. Abstract with programs. Seminar abstract volume 'Developments in Geosciences in the Past Decade - Emerging Trends for the Future & Impact on Society' and Annual General Meeting of the Geological Society of India, IIT-Kharagpur, 21-23 October 2016. PhD scholar supervision.
05. *Mondal, S.K. (2012): From core-mantle interaction to late heavy meteorite bombardment: understanding the platinum group element (PGE) character of the Earth's mantle. National Seminar on 'Recent advances and future challenges in Geochemistry and Geophysics: The Indian scenario', Banaras Hindu University, India, February 22-24, 2012. Abstract with programs.
06. *Mondal, S.K. (2011): Chromites of the Archean greenstone belts of India: implications for tectonic settings. National workshop on the 'Precambrian Tectonics and Related Mineralization in South India', October 13-14, 2011, organized by the AMD-BRNS (DAE) - Bangalore, India. Abstract with programs.
07. *Mondal, S.K. (2011): Ore Deposits of the Platinum Group Elements (PGE). Annual General Meeting of the Geological Society of India, Banaras Hindu University, India, September 22-24, 2011. Abstract with programs.
08. *Mondal, S.K. (2007): PGE fractionation in natural magmas and igneous rocks: why and how? Published in the proceeding volume of MSI-2007 and national seminar on exploration

for PGE, gold and diamonds in India, NGRI, Hyderabad, India. Abstract with programs. Extended abstract.

g. Other publications/reports/conference proposals

01. 2024: Co-author of a Session Proposal as convenor, Goldschmidt Conference, 2025, Prague.
02. 2021: Co-author of a Session Proposal as convenor, Goldschmidt Conference Virtual.
03. 2019: Co-author of a Session Proposal as convenor, Goldschmidt Conference 2019, Barcelona, Spain.
04. 2016: Co-author of a Session Proposal as convenor, Goldschmidt Conference 2016, Japan.
05. 2015: Co-author of a Session Proposal as convenor, Goldschmidt Conference 2015, Prague, Czech Republic.
06. Mondal, S.K. (2014): Goldschmidt Conference 2013, Florence, Italy. News & Notes, Journal of the Geological Society of India 2014, Volume 83: 104-105.
07. Mondal, S.K. (2013): B.P. Radhakrishna – The last Gandhian Scientist. REMINISCENCES, Compiled by Mahabaleshwar, Published by Geological Society of India, 149-153.
08. 2013: Co-author of a Session Proposal as convenor, Goldschmidt Conference 2013, Florence, Italy.
09. Mondal, S.K. (2012): 21st Annual V. M. Goldschmidt Conference, Prague, Czech Republic. News & Notes, Journal of the Geological Society of India 2012, Volume 79: 111-112.
10. 2012: Author of the fund proposals (MoES and DST) as convenor under the Geological Society of India (Bangalore) to organize the IGCP short course, field workshop and seminar.
11. 2011: Co-author of a Session Proposal as convenor, Goldschmidt Conference 2011, Prague, Czech Republic.
12. 2010: Author of a fund proposal (Karnataka State Geology Department) as convenor under the Geological Society of India (Bangalore) to organize the field workshop in the Nuggihalli Belt, Karnataka.
13. Mondal, S.K. (2006): Contributed and featured as a scientist in the textbook project for kids (at the level of Grade 4) in the AMNH, New York City. The book was published by Macmillan/ McGraw-Hill, NYC where the feature discusses the role of a geologist and part of the teaching materials in the elementary schools in the USA. Text-Book for kids.