Curriculum Vitae

Name: Dr. Om Prakash Kumar

Current Position and Address:

(with E-mail & Phone no.) Technical Officer

Gas Emissions and Clean Energy

Resources

CSIR-Central Institute of Mining & Fuel

Research, Dhanbad – 826001

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Researchgate https://www.researchgate.net/profile/Om-Kumar-8

LinkedIn https://bit.ly/48u92Nz

Educational Qualifications: (Graduation and above)

| Degree/ Certificate | Year of Passing | University/Institute | Subject |
|---------------------|-----------------|------------------------------------|---------|
| Ph.D. | 2024 | Banaras Hindu University, Varanasi | Geology |
| M.Sc.(Tech.) | 2015 | Banaras Hindu University, Varanasi | Geology |
| B.Sc. (Hons.) | 2012 | Banaras Hindu University, Varanasi | Geology |

Academic/Research Experience/Employment

| Designation/Position | Name of Organization | From | То |
|------------------------|---|-----------|-----------|
| Technical Officer | CSIR-Central Institute of Mining and Fuel Research, Dhanbad | Aug. 2024 | Continue |
| Technical Assistant | CSIR-Central Institute of Mining and Fuel Research, Dhanbad | Aug. 2019 | Aug. 2024 |
| Senior Research Fellow | Banaras Hindu University, Varanasi | Mar. 2018 | July 2019 |
| Junior Research Fellow | Banaras Hindu University, Varanasi | Mar. 2016 | Feb. 2018 |

Area of specialization: Coal Geology, Organic Petrography, Environmental Geochemistry, Rare Earth Elements, Trace Elements

Publications:

- 1. P Gopinathan, Amit Karmakar, Kanishk Kumar Karan, Om Prakash Kumar, Prabal Boral, Sanjay Kumar Thakur, Saroj Kumar, Vivek Singh, Priya Kumari, Arshi Perween, Jyoti Sharma, Abhishek Mahato, Gaurav Raghuvanshi, Madhu Jha, Ashish K Ghosh, Pradip K Banerjee, Rare Earth Elements Geochemistry, Mineral Hosts and Recovery Potential from Singrauli Coalfield, India. Physics and Chemistry of the Earth, Parts A/B/C, pages 104101, (2025). https://doi.org/10.1016/j.pce.2025.104101
- 2. <u>Om Prakash Kumar</u>, P. Gopinathan, Amiya Shankar Naik, Pramod Kumar Rajak, Govind Kumar, Neeraj K. Upadhayay, Amit Karmakar, T. Subramani, Structural and maturity evolution of lignite using Raman spectroscopy and organic petrology of the Barmer basin, Rajasthan, India. *Environ Geochem Health* 47, 317 (2025). https://doi.org/10.1007/s10653-025-02638-v
- 3. P. Gopinathan, Afaq Ahmad Khan, Vivek Singh, M.S. Santosh, T. Subramani, Amit Karmakar, Surender Kumar, Md Asif, **Om Prakash Kumar**, Amiya S. Naik, Pradip K Banerjee, Prakash



- K. Sarangi, Photothermal conversion and geochemical characterization of sulfur-rich lignite for non-conventional energy applications. Scientific Reports 15, 6945 (2025). https://doi.org/10.1038/s41598-024-84266-7
- 4. Deepika Rathore, P. Gopinathan, Pramod K. Rajak, Aniruddha Kumar, Om Prakash Kumar, K. N. Singh, Amit Karmakar, T. Subramani, Elemental Composition and Petrographic Analysis of Coal in the Sohagpur Coalfield With Implications for Environmental Management. Geological Journal (2025). https://doi.org/10.1002/gj.5185
- 5. Amit Karmakar, P. Gopinathan, <u>Om Prakash Kumar</u>, Manoj K. Sethi, T. Subramani, M. Santosh, Pradip K. Banerjee, Transformation in energy content of non-coking coals during differential settling beneficiation process: Implications for energy impact, Fuel, Volume 377, (2024), 132662. https://doi.org/10.1016/j.fuel.2024.132662
- 6. Pramod K. Rajak, P. Gopinathan, Aniruddha Kumar, Om Prakash Kumar, Ishwar C. Rahi, Anupam Sharma, Prakash K. Singh, Amit Karmakar. "Geochemical and mineralogical assessment of environmentally sensitive elements in Neyveli lignite deposits, Cauvery Basin, India." Environmental Geochemistry and Health 46, no. 11 (2024): 431. https://doi.org/10.1007/s10653-024-02193-y
- 7. P. Gopinathan, M.S. Santosh, <u>Om Prakash Kumar</u>, T. Subramani, Vasileios Antoniadis, Sabry M. Shaheen, M. Santosh, Mineralogical and geochemical characterization of coal debris from major coal fields in India: Implications on respirable dust hazards, Process Safety and Environmental Protection, Volume 184, (2024), Pages 1057-1068. https://doi.org/10.1016/j.psep.2024.02.067
- 8. P. Gopinathan, A. Mahato, <u>Om Prakash Kumar</u>, A. Kumar, T. Subramani, Amit Karmakar, B. Hazra, P.K. Banerjee, M.K. Saini, M.K. Sethi (2024). Evaluation of Singrauli Coals for Sustainable Energy Utilisation: Insight from Geochemical and Petrographic Perspectives Geological Journal, 2024; 0:1–23. https://doi.org/10.1002/gj.5060
- 9. Om Prakash Kumar, Amiya S. Naik, P. Gopinathan, T. Subramani, Vishvajeet Singh, Prakash K. Singh, Uma K. Shukla, and Arun Prabhu. "Petrographic and geochemical analysis of Barmer Basin Paleogene lignite deposits: Insights into depositional environment and paleo-climate." Journal of Geochemical Exploration 256 (2024): 107335. https://doi.org/10.1016/j.gexplo.2023.107335
- 10. Om Prakash Kumar, P. Gopinathan, Amiya S. Naik, T. Subramani, Prakash K. Singh, Anupam Sharma, Sudip Maity, Sujan Saha. Characterization of lignite deposits of Barmer Basin, Rajasthan: insights from mineralogical and elemental analysis. Environ Geochem Health (2023). https://doi.org/10.1007/s10653-023-01649-x
- 11. Bodhisatwa Hazra, David A. Wood, Pradeep K. Singh, Ashok K. Singh, Om Prakash Kumar, Gaurav Raghuvanshi, Deependra Pratap Singh, Prasenjeet Chakraborty, Pudi Srinivasa Rao, Koushik Mahanta, Gajanan Sahu, "Source rock properties and pore structural framework of the gas-prone Lower Permian shales in the Jharia basin" India. Arabian Journal of Geosciences (2020) 13:507. https://doi.org/10.1007/s12517-020-05515-3
- 12. Pramod K. Rajak , Vijay K. Singh , Asha L. Singh , Narendra Kumar , **Om Prakash Kumar**, Vishvajeet Singh , Aniruddha Kumar , Ankita Rai , Shweta Rai , Amiya S. Naik , and Prakash K. Singh. "Study of minerals and selected environmentally sensitive elements in Kapurdi lignites of Barmer Basin, Rajasthan, western India: implications to environment". Geosciences Journal **(2019)**. https://doi.org/10.1007/s12303-019-0029-4
- 13. Pramod K. Rajak, Vijay K. Singh, Prakash K. Singh, Asha Lata Singh, Narendra Kumar, Om Prakash Kumar, Vishvajeet Singh, and Aniruddha Kumar. "Geochemical implications of minerals and environmentally sensitive elements of Giral lignite, Barmer Basin, Rajasthan (India)." Environmental Earth Sciences 77, no. 19 (2018): 698. https://doi.org/10.1007/s12665-018-7885-5

Book Chapter

1. Singh, S., K. Chaubey, P. Singh, <u>Om Prakash Kumar</u>, Amit Karmakar, T. Subramani, and P. Gopinathan. "Drainage Network Analysis of River Basin Using Remote Sensing and GIS." In Modern River Science for Watershed Management: GIS and Hydrogeological Application, pp.

Conference/Seminar/Workshop

- 1. One week workshop on Critical Minerals: Nature, Recovery and uses, organized by the Department of Applied Geology, Indian Institute of Technology (Indian School of Mines), Dhanbad, held during 15th to 19th July 2024.
- 2. Workshop on Challenges and Opportunities in Gasification (CARING 2024), organized at CSIR-Central Institute of Mining and Fuel Research, Digwadih campus, Dhanbad during 26.06.2024 to 27.06.2024.
- 3. The 10th Asian Mining Congress at Taj Taal Kutir Convention Centre, Newtown, Kolkata during 6th to 8th November, 2023.
- 4. 73rd Annual Meeting & Symposium of the International Committee for Coal & Organic Petrology (ICCP 2022) organized by CSIR-CIMFR, Institute of Mining and Fuel Research, Digwadih Campus, Dhanbad at Vigyan Bhawan, New Delhi.
- 5. National Workshop on "Basic Concepts in Coal Petrology, January 18-20, 2021, Coal Petrology Section, RQA Division, CSIR-CIMFR, Digwadih Campus.
- 6. Symposium on Frontiers of Sciences (Present & future): Physical, Chemical & Earth Sciences, 8th-12th March, 2019, Banaras Hindu University, Varanasi.
- 7. Indian Academy of Sciences Workshop on "Advances in Earth System Science" on 31th October and 1st November, 2018 organized by the Department of Geology, Institute of Science, Banaras Hindu University, Varanasi.
- 8. Oral presentation in the National Conference on "Climate Change and Natural Resources: Impact and Sustainable Development in Indian Perspective" held at Department of Geology, University of Lucknow, February 20-21, 2018.
- 9. Poster presentation in the National Conference on "Climate Change and Natural Resources: Impact and Sustainable Development in Indian Perspective" held at Department of Geology, University of Lucknow, February 20-21, 2018.

Achievement and Awards

- 1. Joint CSIR-UGC NET (December 2014) AIR-16
- 2. Qualified GATE-2019
- 3. Qualified GATE-2018
- 4. Qualified GATE-2015

Skills

Technical Proficiency: Operating knowledge of Windows (2000, XP, 7, 10).

Software: Origin, CorelDraw, Sigma plot, MS Office.

Instrument handle: Working Experience with GCV, TGA, XRD, FTIR, Polarizing Microscope and Sophisticated instruments used in Proximate and Ultimate analysis of coal.

Quality Documentation and Compliance: Proficient in maintaining and auditing documentation in NABL-accredited laboratories, ensuring adherence to quality and regulatory standards.

I, undersigned, certify that all the information provided by me is true to the best of my knowledge and beliefs.

Date: 19-Sep-2025 Place: Dhanbad, India

(Dr. Om Prakash Kumar)

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