

Curriculum Vitae

Dr. Pramod Kumar Rajak (Scientist - B)

Wadia Institute of Himalayan Geology
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Google scholar : <https://scholar.google.com/citations?user=Dd5rZ10AAAAJ&hl=en&oi=ao>



Field of Specialization

Fuel (Coal) Geology, Coal Petrology and Coal Geochemistry

Experience

1. Currently working as **Scientist – ‘B’**, from 10.07.2023 to present at ‘Wadia Institute of Himalayan Geology, 33, G. M. S. Road, Dehradun – 248001, Uttarakhand (India)’.
2. **Post Doctorate:** Completed **UGC-DS KOTHARI PDF** from 02.04.2019 to 01.04.2022 in School of Studies in Earth Science, V. U., Ujjain - 456010 (M.P.).
3. **Guest Faculty:** Department of Geology, School of Earth & Environmental Sciences, BBAU (A Central University), Lucknow – 226025 (U. P.). **Session:** 2017-2018.
4. **Research cum Teaching:** Department of Geology, Banaras Hindu University, Varanasi – 221005 (U. P.). **Session:** 2011-2012.
5. **Doctor of Philosophy (Ph.D.):** Completed **Doctor of Philosophy** from 29.09.2010 to 28.04.2016 in Department of Geology, B.H.U. Varanasi-221005 (U. P.).

Post Doctorate

Completed Dr. D. S. KOTHARI PDF on the topic of ‘*Organic petrology and geochemical characterization of Neyveli lignite deposits of Tamilnadu: Implication on hydrocarbon potential*’ from School of Studies in Earth Science, Vikram University, Ujjain (M.P.).

Doctor of Philosophy (Ph.D.)

Completed Ph.D. on the topic of ‘*Organic Petrology and Geochemical Characterization of the lignite deposits of Rajasthan*’ from Department of Geology, B.H.U., Varanasi (U.P.).

Academic profile

Examination	Board/ University	Year
Ph.D.	Department of Geology, Banaras Hindu University, Varanasi -05	2016
M.Sc.	Department of Geology, Banaras Hindu University, Varanasi -05	2010
B.Sc.	Department of Geology, Banaras Hindu University, Varanasi -05	2008

Award / Fellowship

- 1) **Dr. H. S. Pareek Award - 2021** for the best paper published in the **Journal of the Geological Society of India on Coal Sciences** during the year **2018, 2019 and 2020**.
- 2) **UGC-DS KOTHARI PDF** for the completion of Post Doctorate on the topic of the topic of '*Organic petrology and geochemical characterization of Neyveli lignite deposits of Tamilnadu: Implication on hydrocarbon potential*' in School of Studies in Earth Science, Vikram University, Ujjain (M.P.).
- 3) **UGC –JRF / SRF** for the Ph.D. completion on the topic of '*Organic Petrology and Geochemical Characterization of the lignite deposits of Rajasthan*' in Department of Geology, B.H.U. Varanasi-221005 (U. P.).

Publications

1. Modi, Prashant; Hower, James C.; Rahi, Ishwar Chandra; Siddiqui, Mohd Adil; **Rajak, Pramod Kumar** and Jamal, Aarif 2023. Extraction of rare earth elements from coal samples from the Sohagpur Coalfield, Madhya Pradesh, India. *International Journal of Coal Preparation and Utilization*, Doi.org/10.1080/19392699.2023.2179998 (**Online available**).
2. Rai, S., Rai, A., Faheem, A., Naik, A.S., **Rajak, P.K.**, Singh, P.K., Srivastava, D.K., Maurya, D.S., Kumar, H., 2022. Characterization of Ramagundam coals of Godavari Basin (India) to evaluate their CBM prospects. *Arabian Journal of Geosciences*, DOI : 10.1007/s12517-022-10681-7 (**Online available**).
3. Kumar, A., Singh, A. L., Kumar, R., **Rajak, P. K.** and Singh, P. K., 2022. Desulphurization of dibenzothiophene by different bacterial strain: An eco-friendly approach to obtain clean fuel from coal. *Geomicrobiology Journal*, 39 (6), 477-486.
4. Kumar, A., **Rajak, P.K.**, Singh, A.L., Kumar, R., Singh, K.N. and Singh, P.K., 2022. Comparative investigation of bio-beneficiation of Kasnau-Matasukh lignite using native microorganism. *International Journal of Coal Preparation and Utilization*, 42 (7), 2187-2203.
5. Singh, V.K., **Rajak, P.K.**, Kumar, A., Singh, A. L., Singh, P.K., Singh, K.N., Naik, A.S. 2021. Selected major, minor and trace elements in lignite deposits of Saurashtra Basin, Gujarat (India): Their association, distribution and environmental implication. *Journal of Scientific Research*, 65 (I), pp. 65-72.
6. **Rajak, P.K.**, Singh, V.K., Kumar, A., Singh, V., Rai, A., Rai, S., Singh, K.N., Sharma, M., Naik, A.S., Mathur, N. and Singh, P.K., 2021. Study of Hydrocarbon Source Potential of Kapurdi lignites of Barmer Basin, Rajasthan, Western India. *Journal of the Geological Society of India*, 97, 836-842.
7. **Rajak, P.K.**, Singh, V.K., Singh, A. L., Kumar, N., Kumar, O. P., Singh, V., Kumar, A., Rai, A., Rai, S., Naik, A.S., and Singh, P.K., 2020. Study of minerals and selected environmentally sensitive elements in Kapurdi lignites of Barmer Basin, Rajasthan, Western India: Implication to environment. *Geosciences Journal*, 24 (4), 441-458.

8. **Rajak, P.K.**, Singh, M.P., Singh, P.K., Singh, V.K., and Singh, A.K., 2019. Environment of Paleomire of Eocene lignite seams of Bikaner-Nagaur basin, Rajasthan (W. India): Petrological implications. *Int. J. Oil, Gas and Coal Technology*, 22 (2), 218-245.
9. **Rajak, P.K.**, Singh, V.K. and Singh, P.K., 2019. Distribution of inertinites in the Early Paleogene lignites of Western India: on the possibility of wildfires activities. *Journal of the Geological Society of India*, 93(5), 523-532.
10. V. K., Singh, **Rajak, P. K.**, Singh, P. K., 2019. Revisiting the paleomires of Western India: Insights into Early Paleogene lignite corridor. *Asian Earth Sciences*, 171, 363-375.
11. **Rajak, P.K.**, Singh, V.K., Singh, P.K., Singh, A. L., Kumar, N., Kumar, O. P., Singh, V., and Kumar, A., 2018. Geochemical implications of minerals and environmentally sensitive elements of Giral lignite, Barmer basin, Rajasthan (India). *Environmental Earth Sciences*, 77 (19), 1-20.
12. Singh, P.K., Singh, V.K., **Rajak, P.K.**, and Neeraj Mathur, 2017. A study on assessment of hydrocarbon potential of the lignite deposits of Saurashtra Basin, Gujarat (Western India). *Int. J. Coal Science & Technology*, 4(4):310–321.
13. Singh, P.K., Singh, V.K., Singh, M.P. and **Rajak, P.K.**, 2017. Understanding the paleomires of Eocene lignites of Kachchh basin (Gujarat), Western India: Petrographic implications. *Int. J. Coal Science & Technology*, 4, pp 80-101.
14. Singh, P.K., Singh, V.K., **Rajak, P.K.**, Singh, M.P. and Naik, A.S., 2017. Paleomires of Eocene lignites of Bhavnagar, Saurashtra Basin (Gujarat), Western India: Petrographic implications. *Journal of the Geological Society of India*, 90 (1), pp.9-19.
15. Singh, P.K., Singh, V.K., Singh, M.P. and **Rajak, P.K.**, 2017. Petrographic characteristics and Paleoenvironmental history of Eocene lignites of Cambay basin, Western India. *Int. J. Coal Science & Technology*, pp. 214-233.
16. Singh, P.K., **Rajak, P.K.**, Singh, V.K., Singh, M.P., Naik, A.S. and Raju, S.V., 2016. Studies on thermal maturity and hydrocarbon potential of lignites of Bikaner-Nagaur basin, Rajasthan. *Energy Exploration and Exploitation*, 34 (1) 140-157.
17. Singh, P.K., **Rajak, P.K.**, Singh, M.P., Singh, V.K., Naik, A.S. and Singh, A.K., 2016. Peat swamps at Giral lignite field of Barmer basin, Rajasthan, Western India: understanding the evolution through petrological modelling. *Int. J. Coal Science & Technology*, 3 (II), pp 148-164.
18. Singh, P.K., **Rajak, P.K.**, Singh, M.P., Singh, V.K. and Naik, A.S., 2016. Geochemistry of Kasnau-Matasukh lignites, Nagaur Basin, Rajasthan (India). *Int. J. Coal Science & Technology*, 3 (II), pp 104-122.
19. Singh, P.K., Singh, V.K., **Rajak, P.K.**, Singh, M.P. and Naik, A.S., 2016. Distribution and geochemistry of selected trace elements in the lignites of Cambay

Basin, Gujarat, Western India. *Journal of the Geological Society of India*, 88, 131-146.

20. Singh, P.K., Singh, V.K., **Rajak, P.K.**, Singh, M.P., Naik, A.S., Raju, S.V. and Mohanty, D., 2016. Eocene lignites from Cambay basin, Western India: An excellent source of Hydrocarbon. *Geoscience Frontiers*, 7, 811-819.
21. Singh, P.K., **Rajak, P.K.**, Singh, M.P., Naik, A. S., Singh, V.K., Raju, S.V. and Ojha, S., 2015. Environmental Geochemistry of selected elements in lignite from Barsingsar and Gurha Mines of Rajasthan, Western India. *Journal of the Geological Society of India*, 86, 23-32.
22. Singh, P.K., Singh, M.P., Singh, A.K., Naik, A.S., Singh, Vikas K., Singh, Vijay, K. and **Rajak, P.K.**, 2012. Petrological and geochemical investigations of Rajpardi lignite deposit, Gujarat, India. *Energy Exploration and Exploitation*, 30 (1), 131-152.

Seminar and conferences

1. **Rajak, P. K.**; Singh, V. K; Singh, P.K., Singh, K.N., and Srivastava, V.K. A Study of lignite deposits of Gurha, Bikaner-Nagaur basins, Rajasthan (Western India): Implication on hydrocarbon potential. 3rd National Geo-Research Scholar Meet 2019 (Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand 248001), June 6-8, 2019; p 180.
2. Kumar, Om Prakash; **Rajak, P. K.**; Shukla, V.; Singh, V. K.; and Singh, V. K. Environmentally sensitive element in Giral lignite, Barmer basin, Rajasthan (India). National conference on Climate change and natural resources; Impact and sustainable development in Indian perspective (Department of Geology, University of Lucknow, Uttar Pradesh - 226007). February 20-21, 2018; p 42.
3. Singh, V. K; **Rajak, P. K.**; Singh, V. K.; and Kumar, Om Prakash; Naik, A.S.; and Singh, P.K. Geochemical and Mineralogical characterization of Barsingsar lignite, Bikaner-Nagaur, Rajasthan (India). National conference on Climate change and natural resources; Impact and sustainable development in Indian perspective (Department of Geology, University of Lucknow, Uttar Pradesh - 226007). February 20-21, 2018; p 75.
4. **Rajak, P.K.**; Singh, P. K.; Singh,V.K.; Singh, M.P.;Kumar, D. and Faheem, A. Potential utilization of Kasnau-Matasukh lignite, Nagaur Basin, Rajasthan, Western India. 2ndNational Geo-Research Scholar Meet 2017 (Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand 248001), May 17-20, 2017; p. 120.
5. Singh, V.K. and **Rajak, P.K.** The hydrocarbon potential of Vastan lignite, Cambay basin, Gujarat. 2nd National Geo-Research Scholar Meet 2017 (Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand 248001), May 17-20, 2017; p. 123.
6. **Rajak, P.K.** Geochemistry and its environmental implication of Kasnau-Matasukh lignite, Nagaur Basin, Rajasthan. National Conference on "Precambrians of India" (Department of Geology, Bundelkhand University, Jhansi, Uttar Pradesh - 284128), November22-24, 2016; p. 120.

7. Singh, V.K. and **Rajak, P.K.** Environmentally hazardous trace elements in Tadkeswar lignite mine, Cambey Basin, Gujarat. National Conference on "Precambrians of India" (Department of Geology, Bundelkhand University, Jhansi, Uttar Pradesh - 284128), November 22-24, 2016; p. 125.
8. **Rajak, P.K.** Paleoenvironment reconstruction of Nagaur Basin through Petrographical model of Kasnau-Matasukh Lignite, Nagaur Basin, Rajasthan. 33rd Convention of Indian Association of Sedimentologists (Department of Geology, B.H.U. Varanasi, Uttar Pradesh - 221005), November 12-14, 2016; p. 14.
9. **Rajak, P.K.**, Singh, V.K. and Kumar, D. Lignite maturity and oil/gas potential of Barsingsar lignite, Bikaner-Nagaur basin, Rajasthan. 1st National Geo-Research Scholar Meet 2016 (Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand 248001), June 1-4, 2016; p. 146.
10. Singh, V.K. and **Rajak, P.K.** Environmental aspects of sensitive trace elements associated with coal and natural waters of Eocene coal field of Cambey basin and their impact on human health. 1st National Geo-Research Scholar Meet 2016 (Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand 248001), June 1-4, 2016; p. 145.
11. **Rajak, P.K.** and Singh, V.K. Coal: Source of energy as well as pollution. International Conference on Contemporary Advances of Science and Technology-2015 (Institute of Science, B.H.U. Varanasi, Uttar Pradesh - 221005), August 7-9, 2015; p. 152.
12. **Rajak, P.K.** and Singh, V.K. Underground coal gasification of Paleogene lignite deposits of Bikaner Basin, Rajasthan. National conference on Paleogene of the Indian Subcontinent (Birbal Sahani Institute of Paleosciences, Lucknow, Uttar Pradesh 226007), April 23-24, 2015; p. 75.
13. Singh, V.K. and **Rajak, P.K.** Harmful constituents of Gujarat coal / lignite and their environmental impact. National conference on Innovation in Engineering (JK Institute of Engineering, Bilaspur, Chhattisgarh - 495550), February 27-28, 2015; p. 45.
14. **Rajak, P.K.** and Singh, V.K. Harmful constituents in Indian coal. International Conference on Emerging challenges and issues in environmental protection (Raipur Institute of Technology, Raipur, Chhattisgarh - 492101). January 23-24, 2014; p. 4.
15. **Rajak, P.K.** Climate changes & temporal variation of Benthic Foraminiferal assemblages in Late Quaternary sediments core off south west coast of India: Paleogeographic implication. International Conference on Geophysical Sciences-Energy, Climate change and Evolution of Human Society-2010 (Department of Geophysics, Banaras Hindu University, Varanasi, Uttar Pradesh - 221005). December 21-23, 2010; p. 39.

Industrial Training

1. Organization: Keshava Deva Malaviya Institute of Petroleum Exploration ONGC, Dehradun. Summer Training Programme-2009 during 1st June to 30th June at KDMIPE, ONGC, Dehradun.
Description: Industrial Training based on exploration and production in oil field.
2. Organization: Oil India Limited, Duliajan, Assam.
Training Programme from 29th March 2010 to 13th April 2010.
Description: Completed industrial training in Well Logging and Geophysics Department (Acquisition, Processing and Interpretation).
3. Completed training on 'Village Level Aquifer Management Plan' by Central Ground Water Board, Northern Region, Minister of Water Resources, Government of India, from 22/11/2013 to 23/11/2013 at Institute of Science, Banaras Hindu University, Varanasi -221005.

Membership

Life time membership of Indian Geological Congress (LM-817).

Declaration

I **Dr. Pramod Kumar Rajak** hereby declare that the above given information is correct to the best of my knowledge and belief.

Date: 31.10.2023

Dr. Pramod Kumar Rajak

Place: Dehradun, Uttarakhand
