

## **Papers Accepted/Published in International Journals**

1. **Jakhu, R.**, Ignatov, A., Chaligava, O. et al. *Radionuclide content in soil from agricultural lands in the Russian Federation*. *Eur. Phys. J. Spec. Top.* (2025).  
<https://doi.org/10.1140/epjs/s11734-025-01535-w>.
2. Yushin, N., Jakhu, R. (corresponding author), Chaligava, O., Grozdov, D., Zinikovskaia, I. *Evaluation of the potentially toxic elements and radionuclides in the soil sample of Novaya Zemlya in the Arctic Circle*. *Environmental Pollution*, 361, 124871 (2024).
3. Jakhu, R., Nekhoroshkov, P., Kamnev, A., Grozdov, D., Krupina, M., Stukolova, I., Zinikovskaia, I. *Assessment of Potential Toxic Elements in Soils, Sediments, and Vegetation in the surroundings of Anapa, Russia*. *Environmental Monitoring and Assessment*, 196, 877 (2024).
4. Yushin, N., Jakhu, R. (corresponding author), Chaligava, O., Grozdov, D., Zinikovskaia, I. *Natural and anthropogenic radionuclides concentration with heavy metals analysis of the sediments collected around Novaya Zemlya*. *Marine Pollution Bulletin*, 194B, 115346 (2023).
5. Bangotra, P., Jakhu, R., Prasad, M., Aswal, R.S., Asish, A., Mushtaq, Z., Mehra, R. *Investigation of heavy metal contamination and associated health risks in groundwater sources of south-western Punjab, India*. *Environmental Monitoring and Assessment*, 195, 367 (2023).
6. Bangotra, P., Sharma, M., Mehra, R., Jakhu, R. et al. *A systematic study of uranium retention in human organs and quantification of radiological and chemical doses from uranium ingestion*. *Environmental Technology & Innovation*, 21(12):101360 (2021).
7. Jakhu, R., Mehra, R., Bangotra, P. *Risk assessment of  $^{226}\text{Ra}$  and  $^{222}\text{Rn}$  from the drinking water in the Jalandhar and Kapurthla districts of Punjab*. *SN Applied Science*, 2, 1.32 (2020).
8. Bangotra, P., Mehra, R., Jakhu, R., Pandit, P., Prasad, M. *Quantification of an alpha flux based radiological dose from seasonal exposure to  $^{222}\text{Rn}$ ,  $^{220}\text{Rn}$ , and their different EEC species*. *Scientific Reports*, 9:2515 (2019).
9. Jakhu, R., Mehra, R., Mittal, H.M. *Exposure assessment of natural uranium from drinking water*. *Environ. Sci.: Processes Impacts*, 18, 1540-1549 (2016).
10. Jakhu, R., Mehra, R., Bangotra, P., Kaur, K., Mittal, H.M. *Estimation of terrestrial radionuclide concentration and effect of soil parameters on exhalation and emanation rate of radon*. *Journal of Geochemical Exploration*, 184-B, 296-303 (2018).
11. Jakhu, R., Mehra, R. *Risk estimation of the heavy metal content of drinking water samples using ICP-MS and multivariate statistical analysis*. *Toxicology and Industrial Health*, 34(10), 714-725 (2018).
12. Bangotra, P., Mehra, R., Jakhu, R., Kaur, K., Pandit, P., Kanse, S. *Estimation of  $^{222}\text{Rn}$  exhalation rate and assessment of radiological risk from activity concentration of  $^{226}\text{Ra}$ ,  $^{232}\text{Th}$ , and  $^{40}\text{K}$* . *Journal of Geochemical Exploration*, 184-B, 304-310 (2018).
13. Mehra, R., Jakhu, R., Bangotra, P., Mittal, H.M. *Estimation of radiological dose from EEC of  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  using DTSP/DRPS and Wire Mesh capped progeny sensors*. *Dose Response*, 14(4): 1559325816680883 (2016).
14. Mehra, R., Jakhu, R., Mittal, H.M. *Assessment of lung dose from indoor  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  exposure in the Jalandhar and Kapurthla districts of Punjab, India*. *Indoor and Built Environment*, 26(9), 1305-1310 (2015).

15. Mehra, R., Jakhu, R., Bangotra, P., Kaur, K., Mittal, H.M. *Assessment of inhalation dose from the indoor  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  using RAD7. Radiation Protection Dosimetry*, 171(2), 208-211 (2016).
16. Bangotra, P., Mehra, R., Kaur, K., Jakhu, R. *Study of natural radioactivity ( $^{226}\text{Ra}$ ,  $^{232}\text{Th}$ , and  $^{40}\text{K}$ ) in soil samples for the assessment of average effective dose and radiation hazards. Radiation Protection Dosimetry*, 171(2), 277-281 (2016).
17. Kumar, M., Kaushal, A., Sarin, A., Mehra, R., Jakhu, R., Bhalla, A., Sharma, N. *Assessment of uranium and radon concentration in drinking water samples of Jalandhar district of Punjab, India. Indoor and Built Environment*, 28(5), 611-618 (2017).

### **Conferences & Workshops Attended**

- **Refresher Course in Experimental Physics**  
Indian Academy of Sciences, Vidya Vikas Institute of Engineering and Technology, Mysore, India  
11 – 26 November 2014
- **Poster Presentation**  
"Measurement of Annual Effective Dose Due to Radon and Thoron Using Pin Hole Cup Dosimeter"  
International Conference on Medical Physics, Radiation Protection, and Radiobiology (ICMPRP2K15), Department of Radiological Physics, SMS Medical College & Hospital, Jaipur, Rajasthan, India  
20-22 February 2015
- **Ph.D Teaching Program on Detectors & Transducers, Applications of Accelerators**  
Inter-University Accelerator Centre, New Delhi, India  
20th April – 8th May 2015
- **Oral Presentation**  
"Study of  $^{222}\text{Rn}$  Exhalation Rate and Natural Radioactivity in Soil Samples for the Assessment of Average Effective Dose"  
Third International Conference on Radiation and Application in Various Fields of Research, Budva, Montenegro  
8-12 June 2015
- **Poster Presentation**  
"Assessment of Inhalation Dose from the Indoor  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  Using RAD7"  
National Conference on Radiation Awareness and Detection in Natural Environment (RADNET-I), Tehri, Garhwal, India  
15-17 June 2015
- **Oral Presentation**  
"Estimation of Dose from Unattached Fraction of  $^{222}\text{Rn}$  Progeny Using DTPS/DRPS and Wire Mesh Capped Progeny Sensors"  
19th National Conference on Solid State Nuclear Track Detectors and Its Applications (SSNTD 19), Dr B R Ambedkar National Institute of Technology, Jalandhar, India  
19-21 November 2015
- **Poster Presentation**  
"Exposure Assessment of  $^{222}\text{Rn}$  in Drinking Water Using Active Radon Monitor RAD7"  
19th National Conference on Solid State Nuclear Track Detectors and Its Applications (SSNTD 19), Dr B R Ambedkar National Institute of Technology, Jalandhar, India  
19-21 November 2015

- **Refresher Course in Material Science and Measurement of Properties**  
Indian Academy of Sciences, IASc, Jalahalli, Bangalore, India  
09 – 24 February 2016
- **Summer School**  
"Formation and Growth of Atmospheric Aerosols"  
Hyytiälä Forestry Field Station, University of Helsinki, Finland  
15th – 20th August 2016
- **Oral Presentation**  
"Estimation of Unattached Fraction and Equilibrium Factor of Radon and Thoron in Jaipur and Ajmer Districts of Rajasthan"  
EU NORM 2017 Symposium, National Physical Laboratory, Teddington, UK  
2-5 October 2017
- **Oral Presentation**  
"Natural and Anthropogenic Contamination Analysis of the Sediments Collected Around Novaya Zemlya"  
International Seminar on Interaction of Neutrons with Nuclei (ISINN-29), JINR Dubna, Russia  
29 May – 2 June 2023
- **Oral Presentation**  
"Natural and Anthropogenic Contamination Analysis of the Sediments Collected Around Novaya Zemlya"  
India-JINR Workshop on Elementary Particle and Nuclear Physics, and Condensed Matter Research, JINR Dubna, Russia  
16-19 October 2023
- **Online Oral Presentation**  
"Radionuclide Content in Soil from Agricultural Lands in the Russian Federation"  
RAP-24 Conference, Granada University, Spain  
10-12 June 2024 (Real-time online presentation)
- **Membership of Scientific Societies**
- Life member of Nuclear Track Society of India (NTSI), An organisation for promoting research and development in Solid State Nuclear Track detectors and their applications.