

Join our Sustainable Chemistry Research Team

Position: Post-Doctoral Researcher in Chemistry

About Us: The Department of Chemistry at M. M. A. M. C., Tribhuvan University, Biratnagar, is seeking a highly motivated Post-Doctoral Researcher to contribute to an exciting research project focused on the "Sustainable Recovery of Rare Earth Metal Ions from E-Waste using Benign Chiral Functionalized Ionic Liquids." This project is funded by the Research Coordination and Development Council (RCDC), Research Directorate Tribhuvan University, Kirtipur, Kathmandu, under the Excellence Research Grant (TU-NPAR-079/080-ERG-11).

Position Details:

- Type of Contract: Temporary Contract
- Contract Duration: 6 months (Renewable every 6 months up to 24 months)
- Fellowship amount: Approx. NPR 30,000 to 40,000 per month (may vary based on Qualification and Experience)
- Expected Hiring Date: 15 August 2023 or soon after that.
- Work Time: Full-time
- Working Station: Department of Chemistry, M. M. A. M. C., T. U., Biratnagar

Eligibility Criteria: We invite applications from highly motivated Nepalese candidates who meet the following requirements:

- Ph.D. in Chemistry (or thesis submitted recently)
- Excellent research experience in synthesis, spectral analysis, and computational analysis
- A substantial number of publications in SJR ranking journals
- Proficiency in writing and speaking English

Research Project: Sustainable Recovery of Rare Earth Metal Ions from E-Waste

Background: In Nepal, the disposal of electronic waste has become a pressing environmental concern. In an effort to address this issue, the Nepali government has initiated measures to manage, repair, recycle, and recover valuable resources from e-waste. Electronic waste contains a significant percentage of Rare Earth Elements (REEs), ranging from 10 to 40 wt%, which is significantly higher than primary and mining grades of rare earth ores. Unfortunately, only around 1% of REEs are typically recycled from final products, leading to significant waste.

Project Objective: This research project aims to develop a sustainable method for recovering Rare Earth Metal Ions from E-Waste using Benign Chiral Functionalized Ionic Liquids. Room temperature ionic liquids (RTILs) will be explored as green solvents for metal separations due to their excellent properties. Functionalized ionic liquids (FILs) will be used as selective extractants, eliminating the need for auxiliary ligands. The project will leverage the unique selectivity of optically pure chiral organic compounds for metal extraction, resulting in improved efficiency and sustainability.

Required Documents:

- Curriculum Vitae (CV)
- Scanned copies M.Sc. and Ph.D. certificates
- Cover Letter

Application Procedure: To apply for this position, please send the required documents to the corresponding address: bkajaya@yahoo.com

Join our team and be part of groundbreaking research in sustainable chemistry! Take this opportunity to contribute to the conservation of natural resources while advancing your career in academia. We look forward to receiving your application.

Application Deadline: **13 August 2023**

Note: Only shortlisted candidates will be contacted for further selection processes.