

Helmholtz-Zentrum Dresden-Rossendorf e.V.



With cutting-edge research in the fields of ENERGY, HEALTH and MATTER, around 1,500 employees from more than 70 nations at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) are committed to mastering the great challenges facing society today. The Institute of Fluid Dynamics is conducting basic and applied research in the fields of thermo-fluid dynamics and magnetohydrodynamics in order to improve the sustainability, the energy efficiency and the safety of industrial processes. The Department of Process Diagnostics is looking for a

PhD Student / Scientific Assistant (f/m/d) Recycling of Rare Earth Elements from Permanent Magnets, subject to project approval.

City: Dresden; Starting date (earliest): 01/11/26; Duration: 3 years; Remuneration: TVöD Bund; Reference number: 2026/111; Closing date: 30/09/26

Tasks

- Development of a process for the recycling of rare earth elements from permanent magnets
- Recovery of Dy and Nd from molten salts at 500 °C
- Design, construction, and operation of the electrolysis cell
- Analysis, interpretation, and documentation of experimental results
- Publication and presentation of research findings at project meetings and scientific conferences

Requirements

- Completed university studies (Master/Diploma) in the field of Chemistry, Chemical Engineering, or a related field (e.g., Mechanical Engineering, Materials Science, Process Engineering, or Physics)
- Enthusiasm for experimental work is desirable
- Willingness to work with high-temperature molten salts
- Knowledge of electrochemistry is desirable
- Ability to work independently in a structured and solution-oriented manner
- Motivation to work in a multidisciplinary and international research environment
- Excellent written and spoken English skills desirable

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- Salary and social benefits in accordance with the collective agreement for the public sector (TVöD-Bund) including 30 days of paid holiday leave, company

pension scheme (VBL)

- Depending on the personal qualifications, the candidate may be classified in salary group 13 according to TVöD-Bund
- We support a good work-life balance with the possibility of part-time employment, mobile working and flexible working hours
- Numerous company health management offerings
- Employee discounts with well-known providers via the platform Corporate Benefits
- An employer subsidy for the "Deutschland-Ticket Jobticket"

Application

We look forward to receiving your application documents (including cover letter, CV, diplomas/transcripts, etc.), which you can submit via our online-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=78551>

More information at <https://stellenticket.de/207210/TUD/>
Offer visible until 30/09/26

