

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. At the Helmholtz Institute Freiberg for Resource Technology (HIF), innovative technologies for the circular economy are developed to provide and use mineral and metal-bearing raw materials more efficiently and to recycle them in an environmentally friendly way. The Helmholtz Institute Freiberg for Resource Technology (HIF) is looking for a Postdoctoral Researcher (f/m/d) that will establish and lead a Junior Research Group in the field of WEEE-recycling, subject to project approval. This junior research group will be established within the context of the new DFGfunded Excellence Cluster "REC2 - Responsible Electronics in the Climate Change Era" that will be established at the TU Dresden. The selected candidate (f/m/d) will have the opportunity to build his own research group dedicated to develop novel predictive concepts for the recycling of WEEE. The development and test of these novel concepts will be done in close collaboration with a transdisciplinary team of researchers, including material scientists, device designers and system architects.

Postdoc (f/m/d) Leader of Junior Research Group "WEEE-Recycling"

City: Freiberg; Starting date (earliest): 01/02/26; Duration: 31.01.2028;

Remuneration: TVöD-Bund; Reference number: 2025/157; Closing date: 26/12/25

Working field

- Establish and lead a junior research group focusing on the development of predictive recycling concepts for future electronic devices and products
- Recruit and manage the group members, which may include postdocs, doctoral students, research assistants and other co-workers
- Supervise students (PhD, MSc and BSc)
- Effective collaboration with other research groups in the REC2 Excellence Cluster
- Test and validate the developed predictive concepts with material scientists and device designers
- Communicate insights gained to colleagues in the REC2 excellence cluster
- Conduct excellent research, including publication in leading international journals, active dissemination of research results to academic networks and the general public
- Attract further third-party funding to strengthen the research activities of the junior research group
- Become actively involved in the REC2 cluster activities and its selfgovernance
- Demonstrate academic ambition by applying for the "TUD Young Investigator Status"

Requirements

- Completed university studies with PhD in the field of Process Engineering,

Metallurgy, Applied Physics, Materials Science, Materials Engineering, or related fields

- Tangible experience with physical and chemical technologies used for the recycling of electronics waste (or similar waste categories)
- Sound knowledge of and experience with approaches used for the quantitative chemical and physical characterization of complex raw materials
- In-depth understanding of critical raw material analytics, processing, valorization and market
- First-hand experience in the application of machine learning, simulation and modelling concepts in resource technology
- Proven track record of interdisciplinary collaboration along the value chain of raw materials
- Tangible publication record relevant to the field
- Experience with project acquisition and coordination
- Good communication and team player skills
- Proven ability to provide professional guidance and motivation to team members
- Fluent in spoken and written English
- Knowledge of German is not a requirement, but will be an advantage

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)
- 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-applicationsystem: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=76132>

More information at <https://stellenticket.de/199761/TUB/>
Offer visible until 26/12/25

