

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 Resource Ecology performs research to protect humans and the environment from hazards caused by pollutants resulting from technical processes that produce energy and raw materials. The Department of Chemistry of the f-elements is looking for a

PhD Student (f/m/d) Metal-organic frameworks of the actinides as matrices for fission product immobilisation

subject to final approval by the project sponsor.

City: Dresden; Starting date (earliest): 15/11/25; Remuneration: TVöD-Bund; Reference number: 2025/124; Closing date: 10/10/25

Working field

- Synthesis of metal-organic frameworks of the actinides (An-MOFs)
- Characterization of the An-MOFs' structure, porosity, as well as surface and bond properties
- Determination of sorption properties of An-MOFs towards fission products
- Development of novel An-MOFs with optimized sorption properties
- Presentation of the results in scientific journals with peer review and at international conferences

Requirements

- Completed university studies (Master) in Chemistry or related field
- Experience in metal-organic syntheses
- Experience in working with glove boxes and Schlenk methods
- Experience in X-ray diffraction techniques and other structural characterizations
- Experience in working with radionuclides, esp. actinides and TRU elements is of advantage
- Thorough and goal-oriented work
- Good communication skills in English required, in German advantageous

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- A structured PhD program with a comprehensive range of continuing education and networking opportunities - more information about the PhD program at the HZDR can be found [here](#)
- 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-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=75763>

More information at <https://stellenticket.de/198134/TUB/>
Offer visible until 10/10/25

