

Research associate / PhD candidate (f/m/d)

Recycling of toxic metal Complexes and Compounds from battery waste

Organizational unit

Institute for Applied Materials - Energy Storage Systems (IAM-ESS)

Job description

The objective of this work is to establish and develop novel recycling pathways for materials from post-Li-battery systems containing cyanide and vanadate ions. You will collaborate with other groups as part of a large excellence cluster. The research results are expected to be published in relevant scientific journals and presented at national and international conferences.

Your scientific tasks in detail:

- Perform hands-on work in the chemical lab and furnace room
- Investigate the conversion of spent Na/K-based battery materials into safe products
- Conduct analytical characterization of treated materials and process the results
- Design and implement new experimental setups
- Collaborate with project partners and participate in meetings
- Write journal articles and present findings at conferences

Your workplace will be at the Institute for Applied Materials - Energy Storage Systems (IAM-ESS) in Eggenstein-Leopoldshafen.

Starting date 01.01.2025

Personal qualification

- Completed Master's degree in Chemistry, Materials Science, or other related disciplines is required
- Motivation to pursue PhD doctorate and self-discipline to complete the tasks in a timely manner are essential
- Understanding of Inorganic Chemistry, Solid State Physics and Interfacial Phenomena is desired
- Strong communication skills and proficiency in written and spoken English are necessary
- Previous experience with Photo-Catalysis and PV-Electrolysis in context of hazardous materials would be a plus
- Previous experience with treatment of Cyanides and Vanadates in context of remediation would be an advantage

Salary German TVöD-13, part time, depending on the fulfillment of professional and personal requirements.

Contract duration until 31.12.2025

Application up to 31.10.2024

For further information, please contact

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