



## Postdoctoral Position in Neutron Powder Diffraction in Garching (f/m)

### Job description:

In cooperation with the Technische Universität München, the Institute for Applied Materials – Energy Storage Systems (IAM-ESS) will design and develop a medium-resolution neutron powder diffraction option at the Heinz Maier-Leibnitz Zentrum (MLZ).

In the frame of this BMBF funded project “ERWIN – Energy Research with Neutrons” you will work at the modern research neutron source FRM II in Garching near Munich and will be responsible for the development and implementation of a neutron powder diffraction option at beamport 8b (instrument RESI).

During the realization of the instrument upgrade your main tasks will be the development and integration (at both hardware and software side) of the powder option, new detector systems and stages for sample positioning and a robotic arm manipulator into the existing infrastructure of the RESI instrument.

With regard to our research program on Li-ion batteries, you will work on the characterization of battery materials by means of in-operando studies in order to understand and improve battery performance. Points of particular interest are the aging and fatigue mechanisms and their correlation with operation parameters, i.e. temperature, charge/discharge currents, and cell history

The high safety standards at the FRM II require a reliability check for the access to the instrument (“atomrechtliche Zuverlässigkeitsüberprüfung”). The position includes working in controlled areas.

### Qualification:

You should have a PhD degree in physics, chemistry or material science and a strong background in diffraction techniques. Knowledge of CAD software (SolidWorks) and programming is an asset. For administrative coordination good German language skills (in both written and oral) are beneficial.

### Salary:

The remuneration occurs on the basis of the wage agreement of the civil service in TV-L.

### Institute:

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

### Contract duration:

limited, up to 30.06.2019

### Starting date:

As soon as possible

### Application up to:

31.03.2017

**Contact person in line-  
management:**  
**Application:**

For further information please contact Dr. Michael Knapp,  
**michael.knapp@kit.edu**  
KIT kindly requests that applications with standard documents, be  
submitted to the following address **and** in electronic form to

**Karlsruher Institut für Technologie (KIT)**  
**Institut für Angewandte Materialien - Energiespeichersysteme**  
**Dr. Michael Knapp**  
**Hemann-von-Helmholtz-Platz 1**  
**76344 Eggenstein-Leopoldshafen**  
**E-Mail: michael.knapp@kit.edu**

KIT is an equal opportunity employer. Women are especially  
encouraged to apply. Applicants with disabilities will be preferentially  
considered if equally qualified.

Karlsruher Institute of  
Technology  
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KIT is certified as a family-friendly university (familienfreundliche  
Hochschule) and offers part-time employment, leaves for family-related  
reasons, dual career options, and individual coaching for family-work  
balance.