

PhD-Candidate/Research Associate (Chemistry/Physics/Material Science/Process Engineering or similar)

Research Associate / PhD Candidate “Synthesis of metal alloy/metal oxide catalytic ultra-small nanoparticles by bipolar electrospray pyrolysis” (m/f/d) to join the Institute of Particle Technology (LFG), Friedrich-Alexander University Erlangen Nuremberg (<https://www.lfg.tf.fau.de>) under supervision of Prof. Wolfgang Peukert and Dr.-Ing. Christian Lübbert as soon as possible.

The remuneration (after the first half year) is based on pay scale group 13 TV-L.

Your challenge: Within the DFG-priority program “Creation of Synergies in Tailor-made Mixtures of Heterogeneous Powders: Hetero Aggregations of Particulate Systems and Their Properties” (<https://www.uni-bremen.de/spp2289>) you will design, build and operate a bipolar electrospray-setup/pyrolysis setup for generation ultra-small metal/alloy/oxide nanoparticles. These particles have numerous applications, a particular focus will be on catalysts for hydrogen production. Analysis of the nanoparticles will be performed by mobility-classified mass spectrometry (DMA-MS), scanning mobility particle sizer (SMPS), electron microscopy (SEM/TEM) and a whole set of complementary methods.

Your competence and interest area should be in the field of aerosol science, particle technology, electrostatics, analytical methods, or a related field. You should be able to think creatively, grasp new knowledge quickly and be able to combine reasoning with concrete problem solving to master complex challenges.

Your qualities:

- A successfully completed university degree (Master or comparable), e. g. physics, material science, chemistry or chemical engineering
- Interest practical laboratory work and theoretical data analysis and modelling (e.g. MatLab™)
- Proficiency in spoken and written English

What we offer: We offer an inspiring, interdisciplinary and international research environment in the area of science and particle technology, product design as well as process modelling and simulation.

How to apply:

We look forward to receiving your application as soon as possible. Paper and digital applications are possible on an equal basis. Please send your complete application documents including motivation letter, CV and certificates of Bachelor and Master degrees to:

Dr.-Ing. Christian Lübbert

Institute of Particle Technology (LFG)

Haberstrasse 9a

91058 Erlangen, Germany

Email: christian.luebbert@fau.de