



Announcement

Ruhr University Bochum is one of the leading research universities. The university draws its strengths from both, the diversity and the proximity of scientific and engineering disciplines on a single, coherent campus. This highly dynamic setting enables students and researchers to work across traditional boundaries of academic subjects and faculties. As home of the Cluster of Excellence for Solvation Science and the Center of Electrochemical Sciences, RUB is amongst the internationally leading research institutions in chemistry.

We are looking for a **Postdoctoral researcher / sub group leader (m/f/d)** from 01.08.2021 onwards (or earlier if possible) for the

ERC Project „Microfluidic Tuning of Individual Nanoparticles to Understand and Improve Electrocatalysis“

in which we will develop a microfluidic setup to characterize and tune nanoparticle catalysts so as to identify structure-activity relations in electrocatalysis and aid the design of improved precious metal-free electrocatalysts.

The employment is a **fixed-term position of three years (with the option to extend to 5 years) and payment follows the TVL E13 full-time** (39,83 h per week).

The position offers versatile cooperation within our international research team and our interdisciplinary cooperation partners and requires:

- Extended experience in microfluidics, in particular with respect to segmented flow microfluidics, microfluidic nanoparticle synthesis and manipulation or electrochemical microfluidics to complement our interdisciplinary and multinational research team.
- Experience in working in international research teams and in collaboration with other national and international groups
- Expertise in running microfluidic experiments and controlling fluid flows, preferably in chemical or electrochemical contexts.
- Expertise in designing and modifying and microfluidic, ideally including flow simulation

Furthermore, the position **desires:**

- Experience in nanoparticle synthesis and characterization methods
- Laboratory-relevant programming skills for flow control and/or (semi)automated data analysis is desired
- Expertise in electrochemistry and catalysis would be helpful
- Clean room experience to assist in design of the microfluidic chips would be beneficial
- Willingness for interdisciplinary collaboration with e.g. Mechanical Engineers and clean room staff during chip fabrication and modification
- Motivation, team work and also ability to work independently, proven ability to write and publish articles for peer reviewed research journals

Our team:

The Chair of Analytical Chemistry II "Electrochemistry and Nanoscale Materials" at RUB is headed by Prof. Dr. Kristina Tschulik and part of the Department of Chemistry and Biochemistry as well as the Cluster of Excellence RESOLV. We are a dynamic and international working group with several years of expertise in the development of electrochemical methods to examine single nanoparticles and particle ensembles.

Our state-of-the-art laboratories are equipped with various state-of-the-art electrochemical and spectroscopically methods for characterization of nanomaterials.

You:

Suitable candidates shall be interested in interdisciplinary research in a highly motivated team and should have a **MSc in Chemistry, Physics or related subjects** as well as successfully finished doctoral research studies.

Further requirements to join our international team are excellent communication and English language skills.

Please send your application, including CV, transcripts and a short research statement electronically, as a single PDF file until 15.04.2021, to [nanoEC\(at\)rub.de](mailto:nanoEC(at)rub.de).