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UNIVERSITÄT  
BOCHUM

RUB

## SENTINEL

European Training Network in Single-Entity NanoElectrochemistry

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**Early stage researcher opportunity available based at**

**Ruhr University Bochum**

Center for Electrochemical Sciences (CES)

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### Project Description

#### **ESR4: Nanoscale Electrocatalysis with Nano Impacts**

This post will be co-supervised by Keysight Technologies Austria GmbH.

Objectives: This project will measure the intrinsic electrocatalytic activity of individual nanoparticles building on the Center's leading expertise in nano impact electrochemistry in combination with in situ spectro-electrochemical and microscopy techniques.

Expected Results: The influence of particle size, morphology and composition on the electrocatalytic activity of individual nanoparticles will be identified, providing insights into the structure-activity relations of electrocatalysts which up to now have been missing and are urgently needed. This will accelerate the development of improved catalysts for renewable energy technologies, such as fuel cells, water electrolyzers or green electrochemical synthesis.

#### What this position offers:

- Working on an exciting and quickly emerging research topic, in a young, and international research team, the Electrochemistry & Nanoscale Materials Group.
- Use of modern laboratories equipped with state-of-the-art research apparatus and customised measurement setups for electrochemistry and in depth characterisation of nanoscale materials.
- The unique opportunity to collaborate closely with leading international partners from industry and academia as part of the SENTINEL training programme.
- Professional training courses on complementary skills and a travel budget for the attendance of international conferences.

Secondments: The ESR will conduct 3 short term international research stays of 2 - 3 months each to global industrial players such as Keysight Technologies and at the outstanding electrochemical research groups of the University of Paris Diderot (Dr. Frederic Kanoufi) and the University of Utah (Prof. Henry White).

Employment: The fellow is employed in a full-time contract based on the collective agreement of the federal states (TV-L).

What RUB expect: A highly motivated and skilled early career researcher, with research experience in electrochemistry and excellent academic background in chemistry as indicated by a first class degree in chemistry, physics or a related subject. The applicant must have less than 4 years of full time research experience and must have spent less than 12 out of the last 36 months within Germany.

## About the Employer

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.

At Ruhr-University Bochum, we wish to promote careers of women in areas in which they have been underrepresented, and we would therefore like to encourage female candidates to apply. Applications by suitable candidates with severe disabilities and other applicants with equal legal status are likewise most welcome.



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