



## Postdoc Position in Environmental Microbiology

The Department of Environmental Microbiology at the Institute for Sanitary Engineering, Water Quality and Solid Waste Management (ISWA) at the University of Stuttgart is delighted to announce an open position for a Postdoc who will work on:

### “Magnetite biogeobatteries as (eco-)engineering systems for wastewater treatment, recovery of phosphate and energy production”



The use of microorganisms for wastewater treatment is exceptionally effective and, therefore, one of the most widely used approaches today. This project aims to develop a novel approach for biological wastewater treatment by applying magnetite biogeobatteries for ammonium removal, phosphorous recovery and simultaneously producing methane, which can be recovered for green energy generation.



The postdoc project will enrich cultures of anaerobic Fe(III)-reducing ammonium-oxidizing (Feammox) and methanogenic microorganisms from different samples of the wastewater treatment plant located at our institute. Feammox and methanogens will perform autotrophic metabolisms (fixing CO<sub>2</sub> and producing methane, respectively) and use magnetite as biogeobattery in the newly established cultures. In a second step, a continuous cultivation approach will be established to scale-up the new enrichment cultures with magnetite.

We are offering a Postdoc position (1 year; potentially extended by another 1, 2 or 3 years) in an interdisciplinary, international, and dynamic team of environmental microbiologists and microbial ecologists. The position provides the opportunity for the candidate to be creative and innovative, and to work on a state-of-the-art topic bridging environmental sciences and applied research. Ideal candidates should have a **solid background in environmental microbiology and molecular ecology**. Applicants must have the ability to work independently and in a team, have excellent management and communication skills and should be highly motivated and committed to pursuing interdisciplinary research. Very good computer and language skills (English) are necessary. The candidate will have the opportunity to present the results in international journals and on conferences. This postdoc will work closely together with a second postdoc from this joint project with Prof. Andreas Kappler's group at the University of Tübingen (see open position in Tübingen here: <https://uni-tuebingen.de/de/87471>). The project is funded by the Ministry of Science, Research and Arts from Baden-Württemberg.

The starting date is **March 2024 or as soon as possible thereafter**. Employment (TV-L E 13, 100%) will be arranged by the administration of the University of Stuttgart. People with disabilities will be given preferential consideration if they are equally qualified. The University of Stuttgart strives to increase the proportion of women in research and teaching and therefore strongly encourages qualified women to apply.

**Applications including CV, motivation letter, an overview about the methods used in the past, and contact information of academic references should be submitted before January 20<sup>th</sup>, 2024 to the JoinUS portal:** <https://careers.uni-stuttgart.de/job/Stuttgart-Postdoc-Position-in-Environmental-Microbiology/964393455/>

More information about the Department of Environmental Microbiology can be found on the website: <https://www.iswa.uni-stuttgart.de/institute/em/>