EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Open postdoc position in Environmental Microbiology &Geomicrobiology

'Anaerobic ammonium oxidation and methanogenesis stimulated by redox-active iron mineral nanoparticles'

We are seeking an Environmental Microbiologist or Geomicrobiologist for a Postdoc position to study the improvement of simultaneous removal of ammonium and formation of methane by applying iron mineral nanoparticles. This project will investigate cultures of anaerobic Fe(III)-reducing ammonium-oxidizing (Feammox) and methanogenic microorganisms amended with iron mineral nanoparticles for ammonium removal, phosphorous recovery and simultaneous production of methane.

We will carry out laboratory batch and bioreactor experiments with geochemical and molecular analyses (qPCR, metatranscriptomics) to follow microbial growth and activity, NH_4^+ removal and CH_4 production efficiency. In addition, the nanoparticles will be analyzed (wet-chemistry, electron microscopy, XRD, Mössbauer spectroscopy).

The Postdoc will be given opportunities to be creative and innovative, to apply state-of-the art microbiological and geochemical analyses, molecular techniques, microbial physiological studies, microscopy, and spectroscopy.

Start date for successful applicant is March 2025 (or as soon as the candidate is available). Employment (TVL E13, for 3 years; 100%) will be arranged by the University of Tübingen.

Requirements:

- Finished PhD thesis
- Strong background in Environmental Microbiology, Microbial Ecology and Geochemistry.
- Ability to work independently and in a team.
- Excellent management and communication skills.
- Highly motivated for interdisciplinary research.
- Good computer and language (English) skills.

To apply, please send a CV, motivation letter and overview of techniques and methods previously used by email before December 30th, 2024 to:

Prof. Dr. Andreas Kappler (andreas.kappler@uni-tuebingen.de), Geomicrobiology, Department of Geosciences, University of Tübingen, Germany. ***https://uni-tuebingen.de/de/104138***