Job posting

**Title**
Open PhD position in Geomicrobiology

Using iron-oxide-based electrodes for the microbial electrosynthesis of organic compounds

**Institution**
University of Tuebingen
Center off Applied Geoscience
Geomicrobiology

**Position**
We are seeking a PhD student to investigate microbial-mineral interactions at the surface of iron-oxide-carbon electrodes used to turn electrical power into organic compounds (electrosynthesis). The project will use a range of analytical methods (magnetic, spectroscopic, and electron microscopy) to follow the oxidation and reduction of different iron oxides during electrosynthesis. We will use state-of-the-art cryogenic focused ion beam scanning electron microscopy (cryo-FIB-SEM) to analyze the three-dimensional interactions of microbes with minerals at the electrode surface to better understand how they exchange electrons. The PhD student will work jointly with a second PhD student from the Tübingen Environmental Biotechnology Group (Prof. Lars Angenent), who will be responsible for designing up the bioelectrochemical systems.

The PhD candidate will be given the opportunity to work on a highly challenging, yet rewarding topic within a large network of (inter)national collaborators. The candidate will apply creativity and innovation to expand our understanding of complex processes which may be used to develop alternative energy resources which are becoming increasingly important in our rapidly changing world.

Start date for successful applicants is early 2021. Employment (TVL E13, 75%, 3 years) will be arranged by the University of Tübingen. The university seeks to raise the number of women in research and teaching and therefore urges qualified women to apply. Disabled persons will be preferred in case of equal qualification.
Responsibilities

Please enter a description of the responsibilities

Requirements

- Highly motivated for interdisciplinary research
- Background and/or interest in (Geo)microbiology, Earth/Environmental Sciences and analytical techniques (Electron Microscopy and Spectroscopy)
- Ability to work independently and in a team
- Excellent management and communication skills
- Good computer and language (English) skills

Application procedure (deadline etc.)

For more information and to apply, please send a CV, motivation letter and overview of techniques and methods previously used by email before December 30th, 2020

Contact

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https://uni-tuebingen.de/de/104138