

Job Opening

Chemical Process Engineer (M/F/D)



Overview

Electrochaea GmbH is seeking a highly motivated and experienced Chemical Process Engineer to support the Development Team in technology commercialization for its biological methanation process. The Company's developing a disruptive new technology for conversion of carbon dioxide into methane, uses renewable power and a variety of CO₂ feed stocks. Electrochaea's power-to-gas technology represents a commercially viable solution for utility-scale energy storage, grid balancing, and carbon recycling.

The core of the technology is a proprietary biocatalyst – an adapted strain of methanogenic archaea, a single-celled anaerobic microorganism – which efficiently converts hydrogen and carbon dioxide into pipeline-grade methane for direct injection into the existing natural gas grid.

The Company is commercializing this power-to-gas technology in markets with high penetration of wind and solar energy (Denmark, Sweden, Germany, Benelux countries, UK, California, etc.), where the intermittent nature of renewable energy sources leads to prolonged periods of excess electricity production. Favorable markets are also defined in terms of electricity prices, incentive schemes and existing infrastructure.

Description of Position

The Process Engineer will be part of a dynamic, international and multidisciplinary team, working with an innovative new technology with international appeal:

You will ensure significant process and quality optimization of our proprietary gas fermentation with a strong focus on physical-chemical process parameters and implementation of suitable process analytics. In cooperation with the development team and external partners, you will be responsible to plan, execute and evaluate calculation of process flow simulations, liquid/liquid and gas/liquid mass transfer and interaction of fluid dynamics with bioreactor geometries. You will be responsible for testing and refinement of the model.

Through close contact with development and engineering teams you will develop the basis for reactor optimization and scale-up.

Qualifications

The ideal candidate will have the following qualifications and capabilities:

- Completed studies (diploma, master's degree, doctorate) in chemical engineering, process engineering, or related discipline
- At least 3 years of practical experience in industry
- Deep understanding of chemical processes, ideally with a biotechnology background
- Experience in methodology and application of modeling with particle-based methods (Discrete Element Method [DEM]) and/or Computational Fluid Dynamics
- Prior knowledge (desired) and/or interest (required) in process analytics and chemometrics.
- Strong ability to analyze technical problems in a solution-oriented manner
- Highly goal oriented and independent working style, ability to critically reflect and challenge the results obtained
- Proven ability to plan and develop project schedules and work within a budget
- Strong teamwork and communication skills
- Flexible and able to work well in a dynamic environment
- Excellent organizational and prioritization skills with the ability to handle multiple projects at once
- Able to interact comfortably, confidently, and professionally with all levels of the organization and external parties

Additional details and requirements:

- Salary will be commensurate with experience and capability
- Letter of application/intent
- CV
- Names/contact information for three professional references
- Please send your application to jobs@electrochaea.com along with a brief statement of your interest in this position, career goals, availability, resume, and expected compensation.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.