

Research Fellow / Research Scientist

Who are we?

We are the University of Cambridge's presence in Singapore, Cambridge CARES. Our activities are sponsored by the National Research Foundation's CREATE programme. In one of NRF's new research initiatives, we are participating in a joint research project with the University of California, Berkeley's presence in Singapore, BEARS. The research programme "A table top chemical factory for the reduction of CO₂ to chemicals" (eCO₂EP) is a joint CARES, BEARS, NUS and NTU activity.

Our team is comprised of world-class scientists and engineers working in a vibrant, fast-paced environment with great opportunities for knowledge and skills development.

Who are we looking for?

We are looking to fill a vacancy of a Research Fellow / Research Scientist to work on integration of the components of the electrochemical CO₂ conversion system into a functional demonstration device. This will involve working closely with the team that is developing new electrodes and scaling up the electrochemical cell, and with researchers working on product separation. Specifically, this role will be primarily responsible for development and operation of the integrated plant; the role holder will be in charge of developing the specifications of the table top factory, developing its automation and control system, integrating the reaction and the separation components, developing process data storage and analysis solution. The role holder would be responsible for tracking the timeline of delivery of the individual components for the integrated table-top factory, identifying and commissioning contractors.

What skills should you have?

The successful applicant will have a background in chemical engineering preferably to PhD level, with practical experience in process engineering (preferably in electrochemical or multi-phase continuous heterogeneous catalytic processes) and separation science and technology. You would have some experience or knowledge of automation of chemical experiments using, for example, LabVIEW or Matlab interfaces, and be able to develop a process flowsheet and P&I diagrams. You should ideally have some knowledge of process simulation environments.

What can we offer you?

- A stimulating working environment with friendly, highly motivated colleagues
- Opportunities to develop and implement new ideas in a creative environment
- Opportunities to develop high-profile publications and learn from international research leaders
- A competitive salary in line with your skills and experience
- A one-year contract in the first instance, extendable following satisfactory performance
- Comprehensive medical insurance coverage as part of your employment

Please note that this post is mainly based in the CREATE Tower at NUS University Town, Singapore. To apply, please send your CV and cover letter (summarising the most relevant skills and experience that you have for the position) to cares@hermes.cam.ac.uk.