Research Fellow/Research Scientist

Who are we?

We are the University of Cambridge presence in Singapore called Cambridge CARES, sponsored by the NRF CREATE program CAM.CREATE. In the National Research Foundation’s new research initiative we are participating in a joint research project with the University of Berkeley’s presence in Singapore, BEARS. The research programme “A tabletop chemical factory for the reduction of CO₂ to chemicals” 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 for an ambitious Research Fellow/Research Scientist to work on the development of mathematical models to simulate chemical processes occurring in electrolytic cells. We are seeking candidates with experience in relevant electrochemical technologies such as fuel cells, electrolyzers or electrochemical energy storage. We expect candidates to have an understanding of chemical kinetics and to have a strong background in modelling and programming to support the development of optimized electrochemical processes.

The successful candidate will need to work closely with the project team and identify key parameters to support the investigation of new electrodes and the scale-up of promising electrochemical cell designs.

What skills do you have?

We are seeking candidates with a strong skill set in numerical simulation, ideally with experience in programming languages such as Fortran, Python and C++. The success of the project requires multidisciplinary collaboration so good communication skills are essential. Candidates should have a PhD (or equivalent) in chemistry, materials science/engineering, chemical engineering, physics or a closely related discipline. The candidate must be independent and motivated with the willingness to travel and collaborate. He/she should have a strong research/technical background in modelling chemical reactions, electrolytic processes and mass transfer, supported by peer-reviewed publications in the field.

When is the position available and for how long?

The position is currently available as a fixed-term contract with the end-date of 31 December 2020. The position will be offered subject to a probationary period of six months.

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.
- A competitive salary in line with your skills and experience.
- A one-year contract in the first instance, extendable following the satisfactory performance.
- A comprehensive medical insurance coverage as part of your employment.

Please note this post is mainly based in the CREATE Tower at NUS University Town, Singapore and is likely to be suitable for recent graduates.

How 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.