UNIVERSITY OF CALGARY

Postdoctoral Positions at the University of Calgary

Can Efficient, Cost Effective CO_2 Reduction Catalysts be Developed?

In 2016, the University of Calgary was awarded $75 million, over seven years, from the **Canada First Research Excellence Fund** **(CFREF)** for its initiative entitled: **"Global Research Initiative in Sustainable Low Carbon Unconventional Resources"**. The goal of this research is to dramatically reduce the impact of energy extraction and energy use on the environment.

As part of the implementation of its CFREF scientific strategy and to address the Grand Challenge aiming to develop next generation of CO_2 conversion catalysis, a project in the production climate neutral synthetic fuels through electrocatalytic carbon dioxide reduction is seeking up to three team members at the Postdoctoral level to join the project.

The successful candidates will work within a multidisciplinary team of synthetic chemists, electrochemists, surface scientists and engineers consisting of 5-7 PI's, 5 PDFs and a similar number of graduate students. The primary aim will be to develop new, selective CO_2 conversion catalysts supported on novel conducting materials. While initially CO has been targeted as a product, other potential fuels will also be within scope.

Accordingly, we seek applications from qualified candidates within 2-4 years of their Ph.D. degree to fill Postdoctoral Fellow positions with the following specific qualifications:

1. **Synthetic inorganic chemistry (2):** Ph.D. in inorganic chemistry with an emphasis on the synthesis and characterization of organometallic and coordination compounds, particularly of the first row transition series. The ability to prepare and manipulate air and moisture sensitive compounds, and characterize them using a suite of modern spectroscopic and analytical techniques. Working knowledge of electrochemistry and electrocatalysis is also strongly desired.
2. **Electrochemistry and catalysis:** Ph. D. in electrochemistry with an emphasis on electrocatalysis, including homogeneneous and surface electrochemistry on novel electrode materials. Experience in the evaluation and benchmarking of new CO_2 reduction catalysts, liquid/gas phase product analysis, surface and materials characterization techniques, and mechanistic analysis would be assets.

The appointments will be for 2 years with a $55,000/year salary (CND dollars); the positions also come with sufficient research support to be managed by the candidate in consultation with the PI members of the team. In addition, the candidates will be required to work within a team environment and so excellent communication skills and the ability to work effectively with a diverse group of interdisciplinary researchers is a must. As PDF team members, strong leadership in project management is also expected.

In assembling the CFREF research teams, aggressive diversity and equity targets are in place and so applications from under-represented groups are especially encouraged.[1]

Applications should be sent directly to Prof. Warren Piers, wpiers@ucalgary.ca, and should consist of a current CV, a list of 2-3 referees with contact information and a cover letter indicating your are applying for a position with the ***Synthetic Fuels*** team as a synthetic inorganic chemist or an electrochemist. Please also indicate your availability. The search will continue until the position is filled, preferably by January 1, 2020.

To be eligible as a Postdoctoral scholar at the University of Calgary, the candidate must have been awarded a PhD or equivalent within the five (5) years immediately preceding the appointment. Please review the Eligibility page for more information prior to applying for this position.

[1] *The University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their professional success while they are here. We encourage all qualified applicants to apply.*