

FIRST Fellows Program

Postdoctoral Research Associate Position: Electrochemical and Photoelectrochemical Studies

Energy Frontier Research Center
Oak Ridge National Laboratory
Oak Ridge, Tennessee

FIRST-01-ORNL

Project Description:

A new Energy Frontier Research Center for the study of Fluid Interface Reactions, Structure and Transport (FIRST) at Oak Ridge National Laboratory (<http://www.ornl.gov/sci/first/index.shtml>) is seeking a post-doctoral associate to work on a research project in electrochemical and photoelectrochemical studies related to electrocatalysis by proton coupled electron transfer reactions occurring at metal, metal oxide, and carbon surfaces.

Major Duties/Responsibilities:

The research will involve electrochemical and photoelectrochemical kinetic studies of modified conducting and semiconducting electrodes in aqueous and non-aqueous solution. The research will be conducted in collaboration with other members of the FIRST Center in which experimental studies will be integrated with theory, modeling, and simulation. This project will measure electrochemical kinetics on reactions of interest to electrocatalytic energy conversion on substrates amenable to *in situ* spectroscopic measurements conducted in collaboration with FIRST Center partners. The expected product of this research is a chemically realistic model of the electrolyte-electrode interface in which the role of proton coupled electron transfer is fully understood.

Qualifications:

Candidates must have a Ph.D. in physical or analytical chemistry or a closely related field. This position requires a strong experimentalist with demonstrated experience in electrochemistry or electrocatalysis in which prior experience with *in situ* spectroscopy-electrochemistry will be an advantage. The candidate should be a self-starter, able to work independently and able to participate creatively in refining program directions. Presentations at national meetings and publication of scientific results in peer-reviewed journals are expected. The candidate must have good oral and written communication skills in English, and be able to interact effectively with a broad range of colleagues.

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

Technical Contact:

For more information about this position please contact Dr. Gilbert M. Brown (browngm1@ornl.gov). Please reference this position title in your correspondence.

How to Apply:

Qualified applicants must apply online at https://www2.ornl.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL FIRST Fellows Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.