

Job Description

Job Title: High Resolution TEM - Post Doc
Job ID: 113673
Location: PNNL - Richland, WA

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Organization and Job ID

Job ID: 113673
Directorate: Fundamental Science Directorate
Division: Chemical & Material Sciences Division
Group: Interfacial Chemistry & Engineering Group

Job Description

A postdoctoral position is available immediately for research of catalyst materials using High-Resolution Transmission Electron Microscopy (HR-TEM) at Pacific Northwest National Laboratory (PNNL). The scientific focus will be on the development of highly active and selective catalysts for the production of hydrogen from alcohols. Alcohols, which can be produced from biomass or corn, have the potential to be an important renewable source of energy and may help to reduce our dependence on dwindling foreign and domestic oil supplies. Methanol and ethanol are particularly promising energy sources since they can be reformed to produce hydrogen which can then be used in highly efficient energy conversion devices such as fuel cells. The specific catalytic systems that will be the focus of the research program are Pd and Co supported on ZnO. A new HR-TEM with state-of-the-art aberration correction and environmental cell for moderate pressure, in-situ operation is being procured for the Environmental Molecular Sciences Laboratory (EMSL) at PNNL. Until this microscope is operational, the candidate will be expected to travel to other facilities in the US and perhaps Europe to perform some of the initial experiments. The candidate should also have experience in traditional methods of catalyst synthesis and performance testing.

Minimum Requirements

Candidates must have received a PhD in Chemical Engineering, Chemistry, Physics, Material Science or other related area within the past five years from an accredited college or university.

Qualifications

Candidate must display outstanding ability in performing and communicating scientific research.

Strong background with high-resolution transmission electron microscopy (HR-TEM) to characterize catalyst materials, experience doing performance testing (reactivity) of catalyst materials, and familiarity with other catalyst characterization techniques. Candidate must be able to be on extended travel several times during the first year to make use of facilities at other laboratories. It is anticipated that PNNL will have an operating instrument by late FY08 at which time the need for travel to perform the experiments will be eliminated.

Equal Employment Opportunity

Pacific Northwest National Laboratory (PNNL) is an Affirmative Action / Equal Opportunity Employer and supports diversity in the workplace. Applicants will be considered for employment without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital status, or sexual orientation.

About Tri-Cities

<http://www.visittri-cities.com/>

The Tri-Cities started out with 3 main communities: Kennewick, Pasco, and Richland - but the phenomenal growth of neighboring West Richland has made the area more of a 'Quad-City!' Located just hours from Seattle, WA and Portland, OR, the area is embraced by the beauty of a desert landscape and connected by the Columbia, Snake, and Yakima rivers. The Tri-Cities offers a

multitude of recreational, cultural, and historical activities and is a great place to visit and live. We're known for our premier golf courses, award-winning wineries, unique shopping, and abundant outdoor and water recreation. Click on the link above to learn more about the various communities. PNNL is located in Richland, WA.

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