



POSITION: Postdoctoral Appointment - Biomass Pretreatment

JOB ID NUMBER: 59193
LOCATION: Emeryville, CA

The Biofuel Challenge—Making Clean, Green, Renewable Energy a Cost-Effective Reality

In the fight against global warming, the need to develop clean, green, and renewable sources of energy has become an international call to action. The Joint BioEnergy Institute (JBEI), a newly established U.S. Department of Energy (DOE) Bioenergy Research Center, is responding by assembling an outstanding team of bioenergy scientists and researchers to meet the challenge.

JBEI is a multi-organizational research center comprising world-class resources and expertise located in one facility at Emeryville, California. The goal of JBEI is to use rapidly advancing scientific techniques, such as systems and synthetic biology, to accelerate development of the nation's biofuels industry. JBEI is managed by Lawrence Berkeley National Laboratory with partner employees from 5 internationally recognized scientific institutions: Sandia National Laboratories, Lawrence Livermore National Laboratory, University of California-Davis, University of California-Berkeley, and the Carnegie Institution for Science.

Sandians working at JBEI's Emeryville facility are essential partners in this aggressive bioenergy effort and will provide the technical expertise needed to produce clean, efficient, and cost-effective biofuels on a commercial scale.

Job Description

As an employee of Sandia at JBEI, this post-doctoral appointee will be working in the field of biomass characterization and pretreatment. This position will be responsible for developing new pretreatment methods and using existing methods to develop optimized pretreatments for selected biomass feedstocks. This work will include the characterization of biomass using various analytical techniques to identify recalcitrant structures within the biomass that pose a significant hurdle in the efficient conversion of these feedstocks.

Required and Desired Qualifications

Required:

- Recent PhD in Chemical Engineering, Chemistry, Materials Science, or related areas
- Experience with standard spectroscopy techniques
- Experience with imaging (electron and optical)
- Demonstrated ability to conduct experiments independently, maintain appropriate records and manage data
- Good computer skills
- Strong verbal and written communication skills
- Experience with scientific journal writing submissions and ability to write above average reviews and articles for submission

Desired:

- Prior experience in the field of biomass pretreatment
- Experience with liquid chromatography, gas chromatography, or capillary electrophoresis
- Experience with standard spectroscopic techniques (UV-Vis, FTIR, Raman), microscopy (electron and optical), mass spectrometry, liquid chromatography, gas chromatography, and fractionation.
- Experience working with chemical reactors and LabView control systems.

Apply at Sandia's Employment website at <http://public.ca.sandia.gov/casite/careers/index.php> . Click on Search Job Postings, and type the Job ID number **59193** into the Keywords box. Click on Search to access this job opening, and complete an online application.