Postdoctoral Scholar Appointment Opportunity with the National Renewable Energy Laboratory and the Stanford Synchrotron Radiation Lightsource

We have an immediate opening for a postdoctoral position to guide solar cell processing at the National Renewable Energy Laboratory (NREL) mainly through x-ray spectroscopy characterization and development at the Stanford Synchrotron Radiation Light Source (SSRL) located at the SLAC National Accelerator Laboratory located in Menlo Park California.

The position is created by a joint funding opportunity between the U.S. Department of Energy (DOE) Office of Basic Energy Science and Office of Energy Efficiency and Renewable Energy. The program aims to use the tools of basic energy science to help solve technical problems defined by the DOE Solar Energy Technology Program as part of the DOE's SunShot initiative. In particular, the project aim to characterize and guide solar cell processing performed at NREL to develop a transparent emitter layer to replace the cadmium sulfide emitter layer used in copper-indium-gallium-selenide (CIGS) solar cells, using synchrotron radiation spectroscopy and scattering tools. The work associated with this appointment will be conducted at the Stanford Synchrotron Radiation Lightsource (SSRL), however there will be some travel involved when the work and/or meeting are to take place at the National Renewable Energy Laboratory (NREL) located in Golden Colorado.

The successful candidate will be involved in planning and execution of X-ray scattering, X-ray absorption spectroscopy, and X-ray emission spectroscopy characterization at SSRL of the CIGS solar cells. The data and results gathered will be developed into models based on key processing parameters at NREL for the solar cells. A major component is the design, development and commissioning of an X-ray emission spectrometer tuned to X-ray energies in the 2-4 keV range. The candidate will also have the opportunity to participate in solar cell development work at NREL.

We seek a candidate with a PhD in Materials Science, Physics, Electrical Engineering or related field. The position requires a strong background in solar and/or solid state physics as well as demonstrated proficiency in spectroscopy (with or without x-rays) relevant to photovoltaics and experience in instrument and/or technique development. Prior experience with synchrotron radiation is favorable. This is 2+ years appointment and will be processed and hired by Stanford University.

Interested applicants should contact:
Dr. Dennis Nordlund via email at Nordlund@slac.stanford.edu or,
Dr. Steven Christensen via email at steven.christensen@nrel.gov