

**Postdoctoral Research Associate in Synthesis,  
Modification and Characterization of Nanostructure  
Materials for Li-ion Batteries**

**Center for Nanophase Materials Sciences Division  
Physical Sciences Directorate  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

ORNL09-127-CNMS

**Project Description:**

The Multiscale Functionality Group of the Center for Nanophase Materials Sciences (CNMS) (<http://www.cnms.ornl.gov/>) at Oak Ridge National Laboratory (ORNL) is seeking a postdoctoral associate to work on a research project in Li-ion batteries. It is expected that the candidate will conduct research into the synthesis and characterization of transition metal oxide and phosphate nanoparticles for their potential use in Li-ion batteries. The underlying goal will be to achieve a fundamental understanding of the formation of solid electrolyte interphase on nanostructured cathodes. Duties include synthesis and structural characterization of metal oxide and phosphate nanoparticles; assembly of electrochemical test cells; evaluation under electrochemical conditions.

**Qualifications:**

Candidates must have a Ph.D. in chemistry, materials chemistry, chemical engineering or a closely related field. The successful candidate will have a demonstrated, background in synthesis of nanostructured metal oxides and phosphates and the use of many physical and chemical techniques for probing composition and structure of these materials and for testing their electrochemical properties. Previous experience in electrochemistry is desirable, but not required. 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, 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 appointment and must complete all degree requirements before starting their appointment.

**Technical Questions:**

For more information about this position please contact Dr. Chengdu Liang ([liangcn@ornl.gov](mailto:liangcn@ornl.gov)) and reference this position title and number in your correspondence.

**How to Apply:**

NOTE: Applications will be accepted until December 1, 2009 or until the position is filled.

Qualified applicants must apply online at [https://www2.ornl.gov/ORNL\\_POST/](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>.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE).

This appointment 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.