

Postdoctoral Research Associate in Extractive Separations

**Chemical Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNLO8-59-CSD

Project Description:

This postdoctoral research position entails a combination of fundamental and applied chemistry, and the candidate should be willing to work in both areas. In general, research will focus on liquid-liquid extraction and ion exchange using novel materials to effect the selective separation of inorganic ions. The applied research activity involves exploratory studies leading to the development of separation processes of large economic impact in the minerals industry. As such, this work will not result in publications in the open chemical literature; benefits to the participant will be training in industrial chemistry, experience in a multidisciplinary activity involving chemists and engineers, possible inventions, and technical reports. Fundamental research will entail investigating the structural and thermodynamic properties of liquid-liquid extraction systems involving designed ion receptors. The goal of this work will involve gaining understanding of the thermodynamics of liquid-liquid extraction and the underlying basis for selectivity. The success criterion of the fundamental research is publications in the chemical literature.

Qualifications:

This position requires a Ph.D. US citizenship or Green Card is required, no exceptions. Candidate must be safety conscious and be able to demonstrate use of prudent safety practices. Good writing skills are essential and will be part of the evaluation. The individual must be a self-starter and be able to work in a team environment. Experience is desirable in some of the following: coordination chemistry, solution thermodynamics, wet analytical techniques, spectroscopic determination of solution species, supramolecular chemistry, radiochemistry, inorganic chemistry, separations techniques. 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.

How to Apply:

Qualified applicants may apply online at <https://www2.ornl.gov/ORNLO8-59-CSD/>. 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 Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified 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.