

**Postdoctoral or Post Master's Research Associate
in Air Filtration**

**Carbon Materials Technology Group
Materials Science & Technology Division Physical Sciences
Directorate Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNLO9-67-MSTD

Project Description:

The Carbon Materials Technology Group in the Materials Science and Technology Division at the Oak Ridge National Laboratory has a job opening on a new research project covering the development of a regenerable filter system for removing CO₂ and volatile organic compounds (VOC) from air streams. The period of the contract is for one year, with the potential for renewal for a similar position in related project areas.

The project work will be focused on the development of adsorbent materials and the construction and demonstration of a regenerable filter for removing CO₂ and VOCs from air streams, with the objective of substantially reducing energy consumption in the target application where CO₂ and VOC scrubbing are required.

Qualifications:

The preferred candidate will have, or expect to receive in the near future, a Ph.D. in materials science, chemistry, chemical engineering, or a related discipline; exceptional candidates at the Masters level will be considered. Qualified candidates will have a good working knowledge of the development and characterization of adsorbents, notably (but not limited to) activated (nanoporous) carbon materials. Relevant experience in this respect will include hands-on operation of standard volumetric and gravimetric techniques for the characterization of surface area and porosity of adsorbents, as well as a good understanding of the fundamentals and interpretation of gas adsorption data. A working knowledge of other applicable instrumental techniques is highly desirable, including SEM, TEM, XRD, and thermal analysis. Knowledge of the design and operating principles of industrial gas adsorption systems, specifically filtration devices, will be a plus. The position requires a self-starter with initiative and problem-solving capabilities, and who recognizes the need for dedication and teamwork to accomplish research goals. Good communications skills are necessary, as is the ability to organize and document research findings for publication.

US citizenship or capability to achieve legal permanent resident status before or during the assignment is desirable.

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.

Technical Questions:

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How to Apply:

Qualified applicants may apply online at 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>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postgraduate Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). 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.