

Advanced Preforming Technology Research and Development Position Oak Ridge National Laboratory

The Polymer Matrix Composites Group in the Metals, Ceramics, Carbon, and Composites Division at the Oak Ridge National Laboratory (<http://www.ornl.gov>) has an immediate opening in polymer composite processing technology. The position requires exposure to broad composite processing and characterization expertise and will focus on developing preforming and liquid molding technology for cost-effective, high-volume applications within the transportation sector. Although a Post-Doc appointment is anticipated, ORNL will also consider Post-Masters appointments and permanent position applicants having combination of education, skills, and experience as described below.

A B.S. degree, minimum, in materials/mechanical engineering or related field is required with advanced degree(s) preferred. Technical skills in liquid molding (RTM, SRIM), robotics, instrumentation, and physical and mechanical characterization of preforms (e.g., permeability) and composites are also desired. Excellent communication skills, written and oral, are required. Experience in utilizing experience with robotics and/or PLC programming in development or application of polymer composites processing technology is desirable, but not required. Experience with engineering mechanics and composites analysis techniques are preferred. Applicant must have an intense desire to expand composites technology and applications, as well as to further his/her professional development in this area. The successful applicant is expected to be a highly qualified and self-motivated individual with ability to work both independently and within a multidisciplinary team.

Job responsibilities will include: 1) programming, operating, and troubleshooting advanced preforming equipment, 2) devising fundamental experiments to investigate critical process parameters, 3) making insightful observations of process constraints and limitations, and make recommendations on the appropriate course of action to mitigate them, 4) recommending suitable material systems to be investigated in preforming and molding studies based on processing characteristics and performance requirements, 5) selecting and conducting physical and mechanical characterizations to quantify effects of process variables, 6) designing and implementing fixtures and devices, and instrumentation to enhance process developments, 7) devising appropriate controls and qualifications required to ensure the requirements for process conditions and structural performance are met, and 8) assisting program/project managers in developing project plans including milestones/deliverables, schedule and cost. In addition to these responsibilities, the job holder will: 1) interact regularly with automotive OEMs, automotive suppliers, and DOE personnel, 2) prepare and present periodic reports documenting research and development, and 3) assist in developing and implementing strategy for transferring developed technology and related follow-on projects.

US citizenship or capability to achieve permanent resident alien status at initiation of the assignment is desired.

Applicants should forward a resume or contact: Robert Norris ; Polymer Matrix Composites Group Leader
Oak Ridge National Laboratory; Box 2008, MS-6053; Oak Ridge, TN 37831-6053;
Phone: 865/576-1179 Fax: 865/574-8257 email: NorrisREjr@ornl.gov

Please reference the position title and number (ORNL04-15-M&C), when corresponding about this position.

This appointment will be offered through the ORNL Postdoctoral Research Associates Program (<http://www.ornl.gov/orise/edu/ornl/ornl-pd/ornlpd.htm>). Salaries will be competitive. The postdoctoral program is open to all qualified individuals without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.