

# Posting Details

<a href="#">Apply For This Posting</a>	
<b>Posting Title</b>	Postdoctoral Research Associates in Materials Joining Science and Technology
<b>Reference Code</b>	ORNL11-145-MSTD
<b>Eligibility Requirements</b>	<ul style="list-style-type: none"> <li>• Degree: Doctoral Degree received within 60 months or currently pursuing.</li> <li>• Affirmation: <p>I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.</p> </li> </ul>
<b>Description</b>	<p>Postdoctoral research associate positions are available in the area of materials joining and associated science and technology. The research emphases are expected to focus on computational modeling of welding phenomena including heat transfer, stress and distortion, and non-equilibrium phase transformation/microstructure evolution. The successful applicant should have a strong background and interest in materials joining with demonstrated capability of innovative and independent research.</p> <p>For the first position, a strong background in computational solid-mechanics including transient dynamics (especially for automotive crashworthiness), thermal-stress, fracture mechanics, and/or fatigue is essential and required. Experience in applying finite element modeling codes such as ABAQUS, ANSYS, and/or LS-DYNA and demonstrated capability of developing user subroutines such as implementation of materials constitutive behavior is essential.</p> <p>The second position requires a strong background in mesoscale phase transformation modeling in metallic alloy systems, and heat flow and mass transfer during welding processes. Experience in electron microscopy and/or neutron/synchrotron characterization of phase transformation is desirable.</p>
<b>Qualifications</b>	<p>The successful candidate must have a Ph.D. (or equivalent) in Welding, Materials Science/Engineering, Mechanical Engineering, or a closely related science and engineering discipline at the time of appointment.</p> <p>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.</p> <p><b>Additional Information:</b></p> <p>Additional information on the Materials Joining Group may be obtained at <a href="http://www.mst.ornl.gov/mjg/index.shtml">http://www.mst.ornl.gov/mjg/index.shtml</a>. For more information about these positions please contact Dr. Zhili Feng (<a href="mailto:fengz@ornl.gov">fengz@ornl.gov</a>). Please reference the position title in your correspondence.</p>
<b>Number of Openings</b>	2
<b>Program</b>	Postgraduate
<b>Division</b>	Materials Science and Technology
<b>Academic Levels</b>	<ul style="list-style-type: none"> <li>• Postdoctoral</li> </ul>

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