

Postdoctoral Appointee - Dynamic Materials, Onsite

Location: Albuquerque, NM – Temporary/Full-time

This postdoctoral position is a temporary position for up to one year, which may be renewed at Sandia's discretion up to five additional years. The PhD must have been conferred within five years prior to employment.

Individuals in postdoctoral positions may bid on regular Sandia positions as internal candidates, and in some cases may be converted to regular career positions during their term if warranted by ongoing operational needs, continuing availability of funds, and satisfactory job performance.

What Your Job Will Be Like

Are you passionate about your work and dream of utilizing state-of-the-art facilities to explore solutions? Do you want to join a dynamic team that solves significant issues for our nation's security? You could be the Postdoctoral Appointee we are seeking to join our team! You will work with the Dynamic Material Properties Department to perform experimental measurements of material properties at extreme conditions. You will lead teams in designing and executing experiments on the DICE and STAR gas gun facilities, the Z pulsed power facility and external user facilities for high pressure research. You will analyze dynamic material data and make important material property measurements.

On any given day, you may be called on to:

- Apply existing capabilities, develop new capabilities, and develop and field novel diagnostics.
- Advance department initiatives, work with customers to define experiments that meet scientific objectives.
- Collaborate with internal and external scientists on research in the broad areas of dynamic material properties and high energy density science.
- Lead teams, act as principal investigator, and participate as a key member of teams performing research at the cutting edge of the application of high-pressure physics.

Due to the nature of the work, the selected applicant must be able to work onsite.

Postdoctoral Appointee Salary is \$98,500.00/annual for NM Location.

Qualifications We Require

- Possess, or are pursuing, a PhD in the physical sciences, engineering, material science or a closely related field and have a bachelor's in science, technology, engineering, or mathematics (STEM)
- Technical competency in one or more of the following areas as demonstrated through publications in journals: Shock physics, high energy density physics, high-pressure physics, high speed diagnostics, geophysics, or material science
- Able to acquire and maintain a DOE Q-level security clearance

Qualifications We Desire

- Excellent written and oral communication skills as demonstrated through technical publications and presentations
- Experience working in a collaborative team environment
- Experience with experimentation involving activity level work such as: high-voltage systems, pulsed power drivers, laser diagnostics, x-ray sources, or gas guns
- Experience with diagnostic instrumentation such as laser interferometry (VISAR and/or PDV), streak and/or framing cameras, digitizers, x-ray diffraction, pyrometry, or spectrometers
- Working knowledge of Matlab or other scientific computing script

About Our Team

The Dynamic Materials Properties Department at Sandia National Laboratories (Department 1646) performs experimental measurements of dynamic material properties at high pressures, including material's equations of state, phase boundaries, and transport and constitutive properties. Experiments are performed with a variety of drivers, from diamond anvil cells to high velocity gas guns to the most powerful pulsed-power facility in the world, the 26 million ampere Z facility. The focus of the department is dynamic material properties experiments using both high-pressure shock waves and shockless compression as well as the development, implementation, and application of new material physics diagnostics. Initiatives within the department range from basic science to highly applied national security missions. The department is responsible for designing, executing, diagnosing, and analyzing dynamic materials properties experiments on the Z facility, and at Sandia National Laboratories Dynamic Integrated Compression Experimental (DICE) and Shock Thermodynamic Applied Research (STAR) facilities. This team is part of the Radiation, Electrical and High Energy Density Science (REHEDS) Research Foundation at Sandia.

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Job #: 6945078

About Sandia:

Our culture values work-life balance; we offer programs such as flexible work schedules with alternate Fridays off, on-site fitness facilities, and three weeks of vacation. Sandia provides employees with a comprehensive benefits package that includes medical, dental, vision, and a 401(k) with company-match.

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation. We are a world-class team of scientists, engineers, technologists, post docs, and visiting researchers all focused on cutting-edge technology, ranging from homeland defense, global security, biotechnology, and environmental preservation to energy and combustion research, computer security, and nuclear defense.

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Life-changing careers.*

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All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status.