Job Description

Fusion Experiments Postdoctoral Appointee

Posting Duration
This posting will be open for application submissions for a minimum of seven (7) calendar days, including the ‘posting date’. Sandia reserves the right to extend the posting date at any time.

What Your Job Will Be Like
Are you passionate about your work and dream of utilizing state-of-the-art facilities to explore solutions? Join a dynamic team that solves significant issues for our nation’s security!

The Fusion Experiments department is seeking a Postdoctoral Researcher to execute experiments, develop unique diagnostics & measurement techniques, and/or lead frontier research in the area of high-energy-density (HED) & Inertial-Confinement Fusion (ICF) physics! This work supports the Z machine, the world’s largest pulsed power generator and one of the nation’s three major High Energy Density physics facilities. In this role you will collaborate within the department, the Pulsed Power Sciences Center at Sandia, and the national High Energy Density Physics community.

On any given day, you may be called upon to:
- Develop and support novel diagnostic instruments and measurement techniques to mature the understanding of experiments on the Z facility
- Serve as principle investigator for ICF and HED experiments on the Z pulsed power facility
- Support experiments on other High Energy Density facilities at Sandia and nationally
- Present at international conferences and document your work in peer reviewed journals

Qualifications We Require
- PhD (earned, or nearing completion of) in plasma physics, electrical engineering, nuclear physics or a related field
- Ability to obtain and maintain a DOE Q security clearance

Qualifications We Desire
- Ability to work independently and as part of a multi-pronged team of experimental and computational scientists, engineers and technologists
- Experience in developing diagnostics or measurement approaches for High Energy Density physics experiments and/or develop impactful HED experiments
- Strong publication record
- History of multi-institution collaborations

Position Information
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.

About Our Team
The Fusion Experiments department (01683) designs and performs Inertial Confinement Fusion and High Energy Density Physics experiments in support of NNSA’s stockpile stewardship program. The department also develops and supports state-of-the-art diagnostic systems used for fusion experiments, including nuclear diagnostics and x-ray and laser imaging. Experiments are principally performed on Sandia’s Z pulsed power facility, with team members also performing experiments on the Mykonos pulsed power driver at Sandia, laser facilities including Z-Beamlet, the National Ignition Facility and Omega and at Sandia’s Ion Beam Laboratory. The department has active collaborations with Lawrence Livermore National Laboratory, Los Alamos National Laboratory, the Laboratory for Laser Energetics, the UK Atomic Weapons Establishment, and a variety of universities.

About Sandia
Sandia National Laboratories is the nation’s premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:
- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible schedules, generous vacations, strong medical and other benefits, competitive 401(k), learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance


*These benefits vary by job classification.

Security Clearance
Sandia is required by DOE to conduct a pre-employment drug test and background review that includes checks of personal references, credit, law enforcement records, and employment/education verifications. Applicants for employment need to be able to obtain and maintain a DOE Q-level security clearance, which requires U.S. citizenship. If you hold more than one citizenship (i.e., of the U.S. and another country), your ability to obtain a security clearance may be impacted.

Applicants offered employment with Sandia are subject to a federal background investigation to meet the requirements for access to classified information or matter if the duties of the position require a DOE security clearance. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause a clearance to be denied or terminated by DOE, resulting in the inability to perform the duties assigned and subsequent termination of employment.

EEO
All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, or veteran status and any other protected class under state or federal law.