

## Job Description

<b>Job Title:</b>	Technical Staff
<b>Job Opening ID:</b>	655108
<b>Location:</b>	Livermore
<b>Full/Part Time:</b>	Full-Time
<b>Regular/Temporary:</b>	Regular

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### About Sandia

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.

To learn more, visit <http://www.sandia.gov>.

### Department Description

The mission of Sandia/California's Engine Combustion Research Department is to develop the science base needed by industry to build and optimize a new generation of advanced, high-efficiency, clean internal-combustion (IC) engines that use both conventional and alternative fuels. The department is part of Sandia's Combustion Research Facility (CRF), where ~100 scientists, engineers, and technologists conduct basic and applied research to improve our nation's ability to use and control combustion processes efficiently and cleanly. The CRF offers a challenging and stimulating work environment that addresses today's most critical energy and environmental issues, as well as opportunities for personal, professional, and technical growth.

### How To Apply

Visit <http://www.sandia.gov/careers> and search on the job opening ID cited above.

### Primary Job Duties

We seek a technical staff member who will join our world-class research team. Using state-of-the-art optical and laser-based diagnostic capabilities, the selected candidate will investigate complex fuel-injection spray and combustion processes that are relevant to advanced direct-injection ICEs. The research will involve identifying and understanding the controlling physical and chemical processes, including the impact of fuel properties; advancing optical diagnostic techniques for investigating these processes; and using the fundamental understanding gained to create models and predictive tools for the processes. Job responsibilities will include

formulating, leading, and guiding a major engine combustion research project; conducting and reporting on independent research; and participating in program development, as well as international collaboration with leading engineers and scientists from industry, universities, and other technical institutions.

### **Required qualifications**

Candidates for this combustion research staff position must have the following qualifications: (1) a PhD in engineering, the physical sciences, or a related field; (2) post-graduate research experience in a university, industrial research and development facility, or government-funded research facility; (2) a strong background in thermal sciences, fluid mechanics, and/or combustion sciences; (3) demonstrated accomplishment in experimental fluid flow and combustion research utilizing laser-based optical diagnostics; (4) the demonstrated ability to formulate and lead a research project and supporting team; (5) a working style that demonstrates initiative and the willingness to take on considerable individual responsibility; (6) excellent verbal- and written-communication skills; and (7) the ability to work effectively with others.

### **Desired qualifications**

Desired qualifications include experience with combustion research in high-pressure systems or engines.

### **Security Clearance**

This position does not require a Department of Energy (DOE)-granted security clearance.

Sandia will conduct a pre-employment background review that includes personal reference checks, law enforcement record checks, and employment and education verifications. Further, employees in New Mexico must pass a U.S. Air Force background screen for access to the work site. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause access to be denied or terminated, rendering the inability to perform the duties assigned and resulting in termination of employment.

If hired without a clearance, and one subsequently becomes required or you bid on positions that require a DOE-granted security clearance, a pre-processing background review that includes personal reference checks, law enforcement record and credit checks, and employment and education verifications may be conducted prior to a required federal background investigation. Applicants for DOE-granted security clearances must be U.S. citizens and be able to obtain and maintain the appropriate DOE security clearance as required for the position.

### **Benefits**

At Sandia you will receive many benefits as a valued employee of a premier national multi-

program engineering and science research laboratory. In our Total Rewards package you will enjoy competitive pay, great benefits, a stimulating, positive environment and learning opportunities that will help build your career. More information may be found on our Careers website.

**EEO**

Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V.