



Postdoctoral Research Associate

Job Title: Postdoctoral Researcher

Location: Washington, DC

Applicant Requirements:

The Combustion and Reacting Transport Section (Code 6185) of the U.S. Naval Research Laboratory is seeking candidates for postdoctoral research fellowships with the potential to transition to civil service. Motivated candidates with **permanent U.S. residency and a doctorate degree** in chemistry, physics, or engineering are invited to apply for a postdoctoral research position within the Combustion and Reacting Transport Section of the Navy Technology Center for Safety and Survivability. Topics include fundamental to advanced research on combustion-related power and energy, fire suppression, and pollution remediation topics.

Particular areas of interest and skill include, but are not limited to, the following:

- Multi-species Raman spectroscopy of hydrogen and hydrocarbon combustion
- Detonating flows
- Gas, liquid, solid, or mixed-phase fuel combustion
- Laser induced fluorescence of hydrogen, hydrocarbon, or metal combustion
- Rayleigh spectroscopy and interferometry
- CARS thermometry and analysis

A strong record of research accomplishments, the ability to work in and direct multi-disciplinary team environments, excellent oral and written communications skills, presentations of scientific results at national meetings, and/or publications in peer-reviewed journals are desired. Ambitious candidates with experience in optical diagnostics of single and multi-phase (gaseous, spray, particulate, solid, foam) combustion and reacting phenomena, chemical kinetics, instrumentation development, data processing and interpretation, laboratory and practical-scale experimental

development are most desired. Candidates with analytical development from mathematical theory of fundamental molecular spectroscopy theory and combustion phenomena have an advantage. Hands-on experience in a laboratory and field setting with working knowledge of data acquisition and processing systems would be beneficial. The applicant will work with an R&D team on a variety of programs and disciplines, implement new experimental designs, coordinate laboratory personnel, and interface with the Department of Defense and other government and non-government entities to develop new avenues of research. State-of-the-art instrumentation and infrastructure are available.

Successful and competitive candidates that can demonstrate technical expertise; the ability to identify, develop, and secure funding for novel research topics; and the ability to successfully collaborate across multiple organizations and technical fields will transition to civil service.

Positions open only to citizens or permanent residents of the U.S.

Contact:

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