

Department of Energy, Environmental & Chemical Engineering

The Department of Energy, Environmental and Chemical Engineering at Washington University in St. Louis has an immediate opening for a postdoctoral or senior research associate position in the field of pressurized combustion. The research is primarily supported by the DOE, as well as NSF and NASA. A Ph.D. in Mechanical or Chemical Engineering, or a related discipline is required and the candidate must have an outstanding academic record and possess strong oral and written communication skills.

This research position is in the Laboratory for Combustion and Energy Research led by Professor Richard Axelbaum. Specific projects include taking a lead role in advancing the staged pressurized oxy-combustion process, which is being advanced towards commercialization and requires fundamental and applied studies to understand the combustion process under these unique conditions. Candidates for this position are sought with previous experience and expertise in pressurized combustion, heterogenous combustion, oxy-combustion and/or coal combustion. Strong, disciplined experimental skills are essential. Experience with the design and construction of small-pilot scale facilities is desirable. Knowledge of RANS and/or Large Eddy Simulation of turbulent combustion is desirable, but not required. The candidate will be expected to work closely with graduate students, technicians and other postdoctoral researchers to plan and lead experiments, including the design of experimental facilities that incorporate advanced combustion diagnostics for gases and particulates, radiation and temperature. The candidate will be expected to prepare peer-reviewed journal articles, conference publications and technical reports, and present this work at professional conferences. The candidate will also participate in the development of new research ideas and preparation of research proposals. If desired, the candidate has the potential to be involved in research associated with combustion synthesis of advanced materials.

The appointment is for one year, renewable annually for up to three years based on satisfactory performance and availability of funding. This position is eligible for full-time benefits; a summary of benefits can be found at: <https://hr.wustl.edu/benefits/>. Additional information about postdoc positions at Washington University in St. Louis can be found at postdoc.wustl.edu/prospective-postdocs.

Applications will be accepted until the position is filled. Interested applicants should submit: a cover letter describing their background, interest in the position and career goals; their C.V. (including a list of publications and presentations); electronic copies of at least two representative publications; and the names and contact information for at least three references to:

Richard Axelbaum
Department of Energy, Environmental and Chemical Engineering
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Washington University is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, age, sex, sexual orientation, gender identity or expression, national origin, genetic information, disability, or protected veteran status.

All external candidates receiving an offer for employment will be required to submit to pre-employment screening for this position. The screenings will include a criminal background check and, as applicable for the position, other background checks, drug screen, employment and education or licensure/certification verification, physical examination, certain vaccinations and/or governmental registry checks. All offers are contingent upon successful completion of required screening.