

Research Engineer Position
Notice of Vacancy
Applied Sciences Laboratory, Spokane
Washington State University

The Spokane-based Applied Sciences Laboratory (ASL) of the Institute for Shock Physics (ISP) at Washington State University is seeking a Research Engineer to undertake research projects related to the work of one of our corporate partners. The initial research emphasis will be on design and performance studies for electronic packaging and encapsulation materials.

Responsibilities for the research project include, but are not limited to:

- Failure analysis of a broad range of electronic packaging technologies and materials, including device encapsulation, surface mount attachment, printed circuit board construction, low-temperature co-fired ceramic substrates, and cable connectors. Experience at the component level highly preferred.
- Assess the capabilities of package designs to meet stringent performance, manufacturing process, and reliability requirements by conducting designed experiments in conjunction with rigorous environmental and failure analysis.
- Provide an in-depth understanding of various phenomena that contribute to device and package failure. For example, causes of failure during product life-cycle may stem from inherent product design and material choice, vendor supplied parts performance, manufacturing errors, corrosion, diffusion and moisture penetration, and electro-migration.

We are looking for a creative, self-motivated individual who has the ability and interest to address challenging, interdisciplinary problems in a fast paced applied research environment. Preference will be given to individuals who can strengthen and enhance ongoing research activities in advanced materials and related technologies, beyond the initial research project related to electronic packaging.

Only applicants who meet the following requirements will be considered:

- M.S. degree (Ph.D. preferred) in materials science /chemical engineering or a relevant engineering discipline
- Minimum of 2-3 years of experience in microelectronics packaging (industrial experience is preferred)
- Experience in project and technical leadership from project initiation through requirements development, detail design, prototype manufacture, and characterization testing
- Hands-on experience in mechanical analysis using analytical and numerical methods, as well as in statistical analysis of data.
- Ability and interest to work effectively in a team environment; excellent communication skills, both oral and written; and good judgment, clear sense of purpose, and accountability
- Applicants must currently be residing in the U.S. to be considered

Experience using SolidWorks and/or Pro Engineer mechanical design tools, Viewlogic /PADS electrical design tools, and Microsoft Office applications is highly desirable.

A competitive salary commensurate with the achievement and experience of the applicant will be offered. The person hired in this position will have significant opportunity participate in an applied research program with a focus on problem solving and applications.

THE APPLIED SCIENCES LABORATORY

The Applied Sciences Laboratory (ASL) is a self sustaining, contract research organization that conducts a broad range of applied research projects for government agencies and private corporations, including the development of commercial applications.

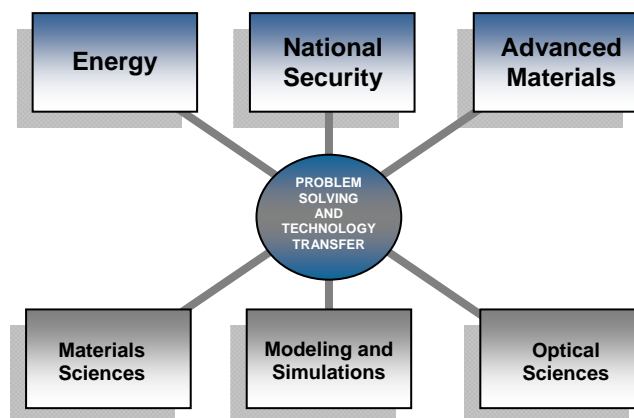


Vision: Transforming scientific innovations into practical solutions

Mission: Grow a self-sustaining, multidisciplinary contract research organization to link academic research to practical applications

ASL combines the creativity of academic research with the agility and customer focus of private industry. With an emphasis on problem solving and commercial applications, ASL is closely coupled to fundamental research at Washington State University (WSU). As the applied research component of WSU's Institute for Shock Physics, but with a research emphasis well beyond shock physics, ASL builds on more than half a century of scientific excellence.

ASL's focus is on applied research and technology to address needs related to energy, national security, and advanced materials.



The scientific underpinnings for these projects are in materials sciences, computational modeling and simulations, and optical sciences. ASL provides the intellectual and scientific foundation for fostering economic growth through strategic investments in the physical sciences, engineering, and advanced technologies.

Further information about ASL may be found at www.asl.wsu.edu.

THE INSTITUTE FOR SHOCK PHYSICS

Nearly 50 years of research innovations and activities in understanding the dynamic response of materials at Washington State University provide the foundation for the applied research activities in ASL. A multidisciplinary research organization within the College of Sciences, ISP undertakes a broad range of fundamental scientific activities related to understanding condensed matter response under dynamic and static compression. Atomic-to-continuum level understanding is the pervading theme of research activities that emphasize integration of innovative experiments with theoretical and computational advances. Multidisciplinary efforts that combine expertise in Physics, Chemistry, Materials Science, and Mechanical Engineering are underway to address several exciting and challenging scientific problems. In addition to the research faculty and staff within the Institute, students and faculty from several departments within the Colleges of Sciences and Engineering and Architecture participate in the Institute's research projects. State-of-the-art experimental and computational facilities are available for studying physical and chemical phenomena over a large range of length and time scales. Excellent research interactions are in place with the DOE / NNSA National Laboratories. Further information about the Institute is available at www.shock.wsu.edu.

WASHINGTON STATE UNIVERSITY

Washington State University, one of the two research universities in the state, was founded in 1890 as the state's land-grant institution and is located in Pullman with regional campuses in Spokane, Vancouver and the Tri-Cities. It is a Carnegie Doctoral/Research Extensive University with a strong emphasis on excellence in research and education. Current enrollment is approximately 21,000 undergraduate, graduate, and professional student FTEs, with approximately 5,600 faculty and staff. The University offers approximately 4300 courses in 150 undergraduate, and more than 70 graduate, degree programs. Academically the University is organized into 10 colleges (Agriculture, Human, and Natural Resource Sciences; Business; Education; Engineering and Architecture; Honors; Liberal Arts; Nursing; Pharmacy; Sciences; Veterinary Medicine) and a Graduate School.

SPOKANE

Spokane is the second largest city in Washington. The population is approximately 200,000 and there are over 400,000 citizens in the greater metropolitan area. It is the heart of the Inland Northwest, known for its beautiful outdoor recreational attractions. Spokane is 75 miles from Pullman. Washington State University has a location at the downtown River Point Campus location on the Spokane River with an enrollment of approximately 1,400 students in selected fields. Eastern Washington University, Gonzaga University and Whitworth University are nearby. The largest employers are Fairchild Air Force base, a combination of hospitals and health care providers, and Kaiser Aluminum. Other industries include Agilent Technologies, Alcatel, Avista, Getronics, Itron, Telect, World Wide Packets, General Dynamics/Itronix, F5 Networks, and Honeywell. There is a small but growing biotechnology industry.

APPLICATIONS

Preference will be given to U.S. citizens or permanent residents. In exceptional cases, applications from individuals who are not permanent residents and are currently in lawful status in the U.S. will be considered. All applicants need to provide citizenship / residency information explicitly in their application material. Applicants should submit a cover letter addressing how

their qualifications pertain to microelectronics packaging applications and the responsibilities outlined for this position, a detailed resume, and the names and contact information of three professional references to:

Ms. Sheila Heyns
Manager for Administration and Operations
Institute for Shock Physics
PO Box 642816
Washington State University
Pullman, WA 99164-2816
Email: ispijobs@wsu.edu (In the subject line, please ensure that you write "ASL Research Engineer")

This position is available now and screening of applicants will begin immediately.

WASHINGTON STATE UNIVERSITY IS AN EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION EDUCATOR AND EMPLOYER. Members of ethnic minorities, women, special disabled veterans, veterans of the Vietnam-era, recently separated veterans, and other protected veterans, persons of disability and/or persons age 40 and over are encouraged to apply.

WSU employs only U.S. citizens and lawfully authorized non-U.S. citizens. All new employees must show employment eligibility verification as required by the U.S. Citizenship and Immigration Services.

Washington State University is committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation in the application process, contact Human Resource Services: 509-335-4521(v), Washington State TDD Relay Service: Voice Callers: 1-800-833-6384; TDD Callers: 1-800-833-6388, 509.-335-1259(f), or hrs@wsu.edu.