Description of Position

The Spokane-based Applied Sciences Laboratory (ASL) of the Institute for Shock Physics (ISP) at Washington State University is a contract research organization which conducts a broad range of projects for government agencies and corporations, including technology transfer for commercial applications. We have an immediate opening for a Postdoctoral Research Associate to conduct applied research in experimental alloy development and processing.

As the Postdoctoral Research Associate, you will work on various aspects of the research project, including alloy development, process development, scale-up fabrication, and process modeling. As an experimentalist, you enjoy hands-on work and problem-solving in a fast-paced research environment. Occasional travel with access to Department of Defense (DoD) facilities is required.

This position is located on the WSU Spokane campus in Spokane, Washington.

Annual Salary: $66,000 to $75,000 | Commensurate with experience and qualifications

In accordance with RCW 49.58.110, the above salary reflects the full salary range for this position. Individual placement within the range is based on the candidate’s current experience, education, skills, and abilities related to the position.

Benefits: WSU offers a comprehensive benefits package which includes paid sick and vacation leave; paid holidays; medical, dental, life and disability insurance package for employees and dependents; retirement; deferred compensation and optional supplemental retirement accounts.

For additional information, please review the detailed Summary of Benefits for WSU Faculty and Total Compensation.

Required Qualifications

- A recent Ph.D. degree in Materials Science, Physical Metallurgy, Mechanical Engineering or related field with a strong experimental background
- Strong academic and research background related to material processing or electro-mechanical systems
- Hands-on experience with material processing and characterization, or electro-mechanical systems
• Graduate or post-graduate experience at a U.S. Academic Institution or National Laboratory
• Good oral and written communication skills (i.e., ability to engage in deep scientific discussions, technical problems and clearly express and understand ideas, and ability to summarize research results in a succinct written manner)
• Ability to perform independent research
• Critical thinking, good judgment, clear sense of purpose, attention to detail, and accountability
• Must be able to obtain a badge at U.S. Department of Defense facilities to gain access to restricted areas/information.

Preferred Qualifications
• Experimental background in processing of titanium alloys
• Proficiency in microstructure characterization and phase identification
• Hands-on experience on SEM, optical microscopy and X-ray diffraction
• Hands-on experience on vacuum equipment and high vacuum systems.
• A solid theoretical background in the thermodynamics and kinetics of solidification.
• Experience on induction melting, laboratory arc-melting, and plasma melting.
• Experience with modeling of heat transfer/fluid flow with a solid theoretical background.
• Experience with FLOW-3D or similar casting simulation software.
• Proficiency in CAD software (e.g., SolidWorks, AutoCAD) and laboratory software (e.g., LabVIEW, MatLab)
• Experience in data mining, machine learning using systems such as Python/Minitab.
• Ability to perform statistical analyses and apply statistical calculations.

Applications
To apply, please submit the following materials to WSU Jobs (Position R-11936):

1) Cover letter to the attention of Dr. Atakan Peker explicitly addressing qualifications for the position and date of availability

2) Curriculum vitae

Applicants are required to include contact information for three professional references within the application.

Questions may be submitted to Ms. Sheila Heyns, Assistant Director, Administration and External Relations, Institute for Shock Physics, 509-335-5345 ispjobs@wsu.edu.

Due to the large volume of applications, we will contact only those selected for next steps.
Additional Information

**Applied Sciences Laboratory**

The Institute for Shock Physics' Applied Sciences Laboratory (ASL) is a university-based contract research organization, located in Spokane, Washington.

The key to success in today’s global economy is knowledge and innovation. ASL functions as a technical resource for the region, and provides scientific expertise and capabilities for local, national, and global customers.

ASL’s research focus is on solving challenging problems related to energy, national security, advanced materials/sensors, and biomedical applications. The scientific underpinnings to address the multidisciplinary challenges involve optical physics, materials science, chemistry, biomedical engineering, and computational modeling and simulations.

ASL has conducted research for regional and national corporations such as Avista, Itron, Pyrotek, Triumph Composite Systems, Inc., Boeing, and Ford Motor Company. Find more information about ASL at [https://asl.wsu.edu/](https://asl.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. Due to its strong emphasis on excellence in research and education, the Carnegie Classification™ has designated WSU as R1: Doctoral University – Highest Research Activity. Current enrollment is approximately 31,500 undergraduate, graduate, and professional students. The University offers more than 200 fields of study, with 95 majors for undergraduates, 79 master's degree programs, 63 doctoral degree programs, and 4 professional degree programs. Academically, the University is organized into 11 colleges (Agriculture, Human, and Natural Resource Sciences; Arts and Sciences; Business; Communication; Education; Engineering and Architecture; Honors; Medicine; Nursing; Pharmacy; and Veterinary Medicine) and a Graduate School. The Colleges of Medicine, Nursing, and Pharmacy are located on the WSU Health Sciences Spokane campus. For more information, please visit [www.wsu.edu](http://www.wsu.edu).

**Spokane, Washington**

Spokane is the second largest city in Washington State and the largest city between Seattle and Minneapolis. Complete with a rich cultural scene, historic neighborhoods, urban appeal, and easy access to four-season outdoor recreation, Spokane supplies a high quality of life for the nearly half million residents who live in the region.