

NOTICE OF VACANCY
Postdoctoral Research Position:
X-ray Measurements in Shock
Compressed Solids



The Institute for Shock Physics (ISP) at Washington State University is a DOE/NNSA “Center of Excellence” with a strong focus on the Dynamic Compression of Material. WSU (as the lead institution) and three outstanding academic partners – Princeton University, California of Technology, and Stanford University – conduct substantive research leading to advances/innovations in the field of Dynamic Compression Science. Multidisciplinary research activities involving students, postdocs, and faculty members from different academic disciplines at the four participating institutions are emphasized to comprehensively address the exciting scientific challenges. In addition, meaningful and mutually beneficial collaborations with scientists at the NNSA Labs: Los Alamos, Lawrence Livermore, and Sandia National Laboratories.

We have an immediate opening for a postdoctoral research associate to undertake experimental research (and related analysis) to understand the microscopic response of shock compressed solids using real-time x-ray measurements in single event experiments. Time-resolved (ns resolution), multiscale measurements (x-ray diffraction, x-ray imaging, laser-interferometry) are used to probe both the microscopic and continuum response in single event experiments. We are looking for a creative, self-motivated experimentalist who has the ability and the drive to pursue challenging, interdisciplinary problems in a fast-paced research environment. *This position may be of interest to individuals trained in static high pressure research who wish to make a transition to dynamic compression research.*

This position is located on the WSU Campus in Pullman, WA. However, this work will involve travel to conduct experiments at the Dynamic Compression Sector (DCS), located at the Advanced Photon Source, Argonne National Laboratory, Argonne, IL. More details about the DCS may be found at www.dcs-aps.wsu.edu.

Only applicants who are currently in the U.S. and meet the following minimum qualifications will be considered for the position:

- A very recent Ph.D. degree in Physics or a closely related field
- Strong academic and research background in condensed matter/materials physics
- Demonstrated, strong record of hands-on experimental research activities
- Experimental aptitude and temperament to conduct single-event experiments
- Graduate or post-graduate experience at a U.S. Academic Institution or National Laboratory
- Ability to work independently and in a team environment, as needed
- Personal attributes should include critical thinking; excellent communication skills, both oral and written; sound judgment; clear sense of purpose; attention to detail; and accountability

Although prior experience in shock wave research is not required, strong hands-on experimental skills relevant to condensed matter research and a strong analytic background are essential. Prior experience with x-ray diffraction measurements is desirable but not necessary. Ability and interest to undertake x-ray measurements/ analysis are necessary to be successful in this position.



Impact Laboratory

The salary structure is both attractive and nationally competitive. Other benefits include health/dental insurance, vacation/sick leave, retirement plans, and access to all University facilities.

Application Process

Applicants should submit a letter of application explicitly addressing the required qualifications for this position and date of availability; detailed curriculum vitae; and contact information for three professional references to the attention of Professor Y. M. Gupta via email at ispjobs@wsu.edu.

To ensure consideration, please specify the position (Postdoc: X-ray Measurements in Shock Compressed Solids) for which you are applying. We will begin reviewing applications immediately and will continue to do so until the position is filled. Please contact Ms. Sheila Heyns with inquiries regarding this position (ispjobs@wsu.edu, 509-335-1861).

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

Additional information about the Institute for Shock Physics and Washington State University follows:

The Institute for Shock Physics Overview

The Institute has ongoing research activities at the following three locations:

- *Institute for Shock Physics - Pullman, WA:* Combining research innovations and rigorous education (shock.wsu.edu)
- *Dynamic Compression Sector - Argonne, IL:* Frontier of dynamic compression science (first-of-a-kind worldwide user facility) located at the Advanced Photon Source, Argonne National Laboratory (dcs-aps.wsu.edu)
- *Applied Sciences Laboratory - Spokane, WA:* Transforming science into practical solutions (asl.wsu.edu)



Shock Physics Building, Pullman, WA

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 RU/VH: Research Universities (very high research activity). Current enrollment is approximately 29,686 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 3 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. For more information, please visit www.wsu.edu.



Washington State University

WSU is an EO/AA Educator and Employer.