

NOTICE OF VACANCY
Postdoctoral Research Position:
Dynamic Compression of
Heterogeneous Materials



Institute for
Shock Physics
WASHINGTON STATE UNIVERSITY

Description of Position

The Institute for Shock Physics at Washington State University has an immediate opening for a postdoctoral research associate (experimentalist) to study the response of heterogeneous materials under extreme conditions. The heterogeneous materials of interest may be broadly described as composites, engineered materials, materials with architecture, additively manufactured structures, granular materials, or cellular foams – in contrast to bulk, homogeneous materials. The heterogeneous materials will be examined under dynamic compression, using time-resolved (ps-ns resolution) measurements in single event experiments. The scientific objectives are to determine the mechanical response of the materials of interest to dynamic loading. 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.

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 Solid Mechanics, Materials Science, Solid State Physics, or a relevant academic discipline
- Strong academic and research background related to the mechanical response of materials and excellent problem-solving skills
- Graduate or post-graduate experience at a U.S. Academic Institution or National Laboratory
- Strong experimental skills and hands-on experience in the study of heterogeneous materials
- Excellent communication skills, both oral and written
- Ability to work independently and in a team environment, as needed
- Personal attributes should include critical thinking; excellent communication skills; sound judgment; clear sense of purpose; attention to detail; and accountability

Prior experience in dynamic compression research is not required. However, strong hands-on experimental skills relevant to the scientific objectives listed above are essential.

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 qualifications for this position and date of availability; detailed curriculum vitae; and the contact information for three professional references to the attention of Professor Mukul Kumar via email at ispjobs@wsu.edu.

To ensure consideration, please specify the position (Postdoc: Heterogeneous Materials) for which you are applying. We will begin reviewing submissions immediately and will continue to do so until the position is filled.

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 90 majors for undergraduates, 76 master's degree programs, 64 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; Medical Sciences, Nursing; Pharmacy; Veterinary Medicine) and a Graduate School. WSU has established a medical school with preliminary accreditation received in Fall 2016. For more information, please visit www.wsu.edu.



Washington State University

WSU is an EO/AA Educator and Employer.