

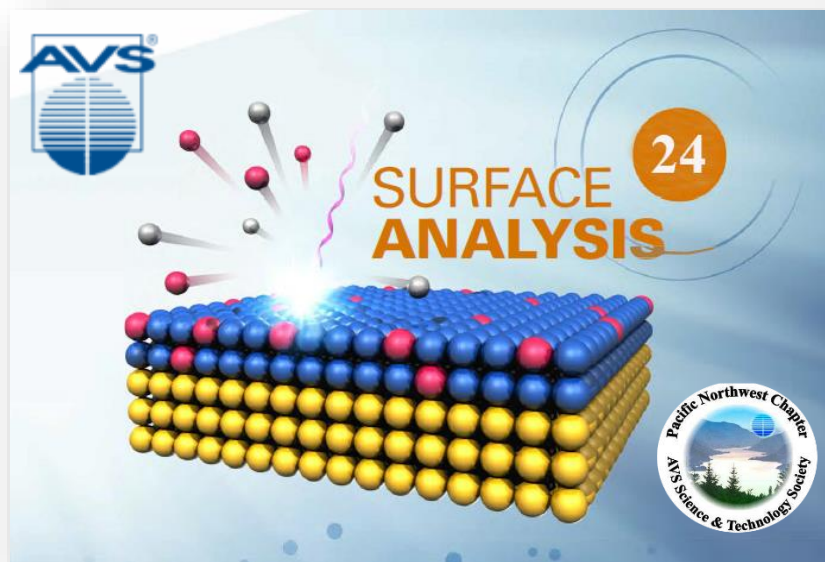
## Surface Analysis '24

Topical Conference on Surface Analysis of the  
**Applied Surface Science Division**

and

35<sup>th</sup> Annual Symposium of the  
**Pacific Northwest Chapter of AVS**  
The Science and Technology Society

**August 6-9, 2024**



<https://pnwavs.org>

**Discovery Hall  
Pacific Northwest National Laboratory  
Richland, WA 99354**

**Abstract Due Date: June 7, 2024**  
**Non-US Citizen Badging For PNNL Access: June 7, 2024**  
**Application for Emerging Leader Award: July 4, 2024**  
**Early Registration Deadline: July 30, 2024**

The 2024 Annual Symposium on Applied Surface Analysis (Surface Analysis '24) will be held jointly with the 35<sup>th</sup> Annual Symposium of the Pacific Northwest Chapter (PNWAVS) of AVS, The Science and Technology Society in Discovery Hall at Pacific Northwest National Laboratory (PNNL), Richland, Washington on **August 6-9, 2024**.

For more information, visit: <http://www.pnwavs.org>

Surface Analysis '24, the bi-annual topical conference sponsored by the Applied Surface Science Division, is an interdisciplinary meeting to discuss advances in surface science and applications. PNWAVS hosts a symposium each year to discuss the latest developments in surface, interface, and vacuum research in the Pacific Northwest region. This year, we will host a joint meeting that will be held at Discovery Hall at PNNL. PNNL is a leading center for scientific discovery in chemistry, data analytics, and Earth science, and for technological innovation in sustainable energy and national security. The theme of this meeting will highlight fundamental and applied collaborative research to understand the interactions occurring at surfaces and interfaces. The goal of this symposium is to promote interactions among all participants from industry, national laboratories, and universities.

The 2024 Annual Symposium will hold several events including a dedicated workshop/tutorial and a 2.5 day technical program with invited speakers, contributed oral presentations, and poster sessions.

## **SESSION TOPICS**

- Design and Analysis of Energy Materials
- Materials Synthesis, Characterization and Applications
- Theoretical and Experimental Studies of Catalytic Materials and Surfaces
- Advances in Chemical Imaging of Surfaces, Interfaces and Nanostructures
- Prediction and Analysis of Environmental and Biological Interfaces

## **CALL FOR CONTRIBUTED PAPERS**

Contributed papers are requested for both oral and poster sessions. Participants who wish to present a paper should submit an abstract for consideration before **the abstract deadline**. Instructions for abstract preparation is available at the conference web site at <https://pnwavs.org/abstract-submission>.

## **POSTER PRESENTATIONS**

Poster sessions with refreshments will be held in conjunction with the vendor exhibit on Wednesday and Thursday, August 7 and 8, 2024. Included in the poster session will be a student poster competition for full-time undergraduate and graduate students. High school students are also encouraged to submit abstracts.

## STUDENT POSTER AWARDS

- A cash award of \$500 plus \$500 towards expenses to attend the national AVS meeting will be given to the winner of the graduate competition.
- A cash award of \$350 will be given for the winner of the undergraduate competition.
- Cash awards will be given to the 2<sup>nd</sup> and 3<sup>rd</sup> place winners from both competitions.
- High school students are encouraged to participate in the poster presentation through an award for every poster presenter.

## CONFERENCE SPECIAL ISSUE OF JVSTA

Both oral and poster presentations qualify for submission as full papers for potential inclusion in the themed collection titled "**Advanced Surface and Interfacial Analysis of Energy Materials**" in the Journal of Vacuum Science and Technology A (JVST A). Manuscripts should be submitted in the original JVST A format directly on the website for review and publication consideration. The program committee strongly encourages students and early career researchers to submit full papers. Notably, early career researchers, are eligible to compete for the **Emerging Leader Award** by submitting their contributions for full paper consideration.

## EMERGING LEADER AWARD

Early career researchers across the universities, industry, and national labs are encouraged to compete for the Emerging Leader Award. The award has been established to recognize exemplary contributions of early career researchers (defined as within 10 years of completing their PhD degree) to advancing the understanding of surface, interface, vacuum, and/or thin film science and technology. The Award will entail a commemorative plaque, travel expenses to attend the SA'24/PNWAVS symposium, the opportunity to deliver an award lecture at the symposium, and publication of a manuscript in JVSTA. Manuscript submission for consideration for publication in JVSTA is a prerequisite for consideration for this award. For more information or to apply for this award, please contact Ajay Karakoti at [ajay.karakoti@pnnl.gov](mailto:ajay.karakoti@pnnl.gov).

## WORKSHOP

A full day Chemical Imaging and Analysis Workshop will be held on Aug. 6, 2024 that will cover XPS, FIB/SEM, STEM, and APT, as well as laboratory tours. The workshop will provide specialized insights into the "air-free" transfer of samples between instruments. As seats are limited, students and faculty members interested in attending this workshop are encouraged to reach out to Shuttha Shutthanandan at [shuttha@pnnl.gov](mailto:shuttha@pnnl.gov).

## REGISTRATION

The registration fee for the entire symposium, including the workshop, is \$350 for pre-registration and \$400 for on-site registration (\$200 for a single day). This fee encompasses the final program, lunches on Aug. 7, 8, and 9, refreshments, poster and vendor receptions, and the conference banquet on Thursday evening. Student registration is priced at \$150 and covers all aforementioned amenities. The registration fee is waived for high school students.

**Non-U.S. Citizens:** If you are not a U.S. citizen, please submit your badging information by June 7, 2024. More information can be found at <https://pnwavs.org/non-us-citizen-link>. Please contact Heather Roney at [heather.roney@pnnl.gov](mailto:heather.roney@pnnl.gov) for any questions.

## **STUDENT PARTICIPATION**

To encourage student participation (in addition to the poster competition), the PNWAVS will subsidize the hotel accommodations of up to 30 students who have registered for the conference. For details, contact Shuttha Shutthanandan at [shuttha@pnnl.gov](mailto:shuttha@pnnl.gov).

## **VENDOR EXHIBIT**

Representatives and manufacturers of surface, thin film, and vacuum equipment are cordially invited to participate in the symposium's vendor exhibit. The exhibit will take place on Wednesday (August 7, 2024) and Thursday (August 8, 2024) during the symposium. Due to limited space availability, interested parties are encouraged to reach out to Joe Gray at [joegray3@palmborgassociates.com](mailto:joegray3@palmborgassociates.com) and/or Theva Thevuthasan at [theva@pnnl.gov](mailto:theva@pnnl.gov) promptly. Vendor registration for the exhibit is priced at \$750 and includes a dedicated table and allocated space. Furthermore, three levels of sponsorship opportunities (Platinum, Gold, and Silver) are also available, offering varying levels of exposure and recognition. For further details and to secure your spot, please visit <https://pnwavs.org/vendor-registration>.

## **BANQUET**

The banquet will be held on Thursday evening, August 8<sup>th</sup>, 2024, at the Hanford Reach Museum, Kennewick, WA and is included in the conference registration. Extra tickets are available for \$50.

## **ACCOMMODATIONS**

Blocks of rooms will be available at the local hotels at discounted rates.

## **TRANSPORTATION**

Pasco Airport (PSC) is conveniently served by Delta, United, Alaska/Horizon, American, and Allegiant airlines. The Tri-Cities region comprises the cities of Richland, Pasco, and Kennewick, with a combined population of around 250,000 residents. Situated approximately 220 miles southeast of Seattle, WA, and 210 miles east of Portland, OR, the Tri-Cities area offers a strategic location for travelers coming from both major cities and beyond.

## **RECREATION ACTIVITIES**

The Tri-Cities area is conveniently situated within a 1-2 hour drive of both the Cascade Mountain range to the west and the stunning Blue Mountains to the east. Within this short driving distance, one can access remarkable attractions such as Mount Rainier National Park, Mount St. Helens National Volcanic Monument, Columbia Gorge National Scenic Area, and the impressive Grand Coulee Dam. The convergence of the Columbia, Snake, and Yakima rivers in the Tri-Cities area provides ample opportunities for water sports and fishing enthusiasts. Additionally, the Tri-Cities Winery Association boasts numerous wineries scattered throughout the valley, welcoming visitors daily to explore and indulge in the region's vibrant wine culture.

## **PROGRAM COMMITTEE**

Arthur Barnard, University of Washington, USA  
David Ginger, University of Washington, USA  
Stephen Golledge, University of Oregon, USA  
Konstantinos Goulas, Oregon State University, USA  
Ajay Karakoti, Pacific Northwest National Laboratory  
Liane Moreau, Washington State University, USA  
Vijay Murugesan, Pacific Northwest National Laboratory  
Alex Shard, National Physical Laboratory, UK  
Vincent Smentkowski, GE, USA  
Karthik Srinivasan, Boise State University, USA

## **CONFERENCE CO-CHAIRS**

Vijay Murugesan, Pacific Northwest National Laboratory  
Ajay Karakoti, Pacific Northwest National Laboratory

## **CONFERENCE ARRANGEMENTS**

Heather Roney, Pacific Northwest National Laboratory

## **LOCAL ARRANGEMENTS**

Shuttha Shutthanandan, Pacific Northwest National Laboratory  
Tiffany Kaspar, Pacific Northwest National Laboratory

