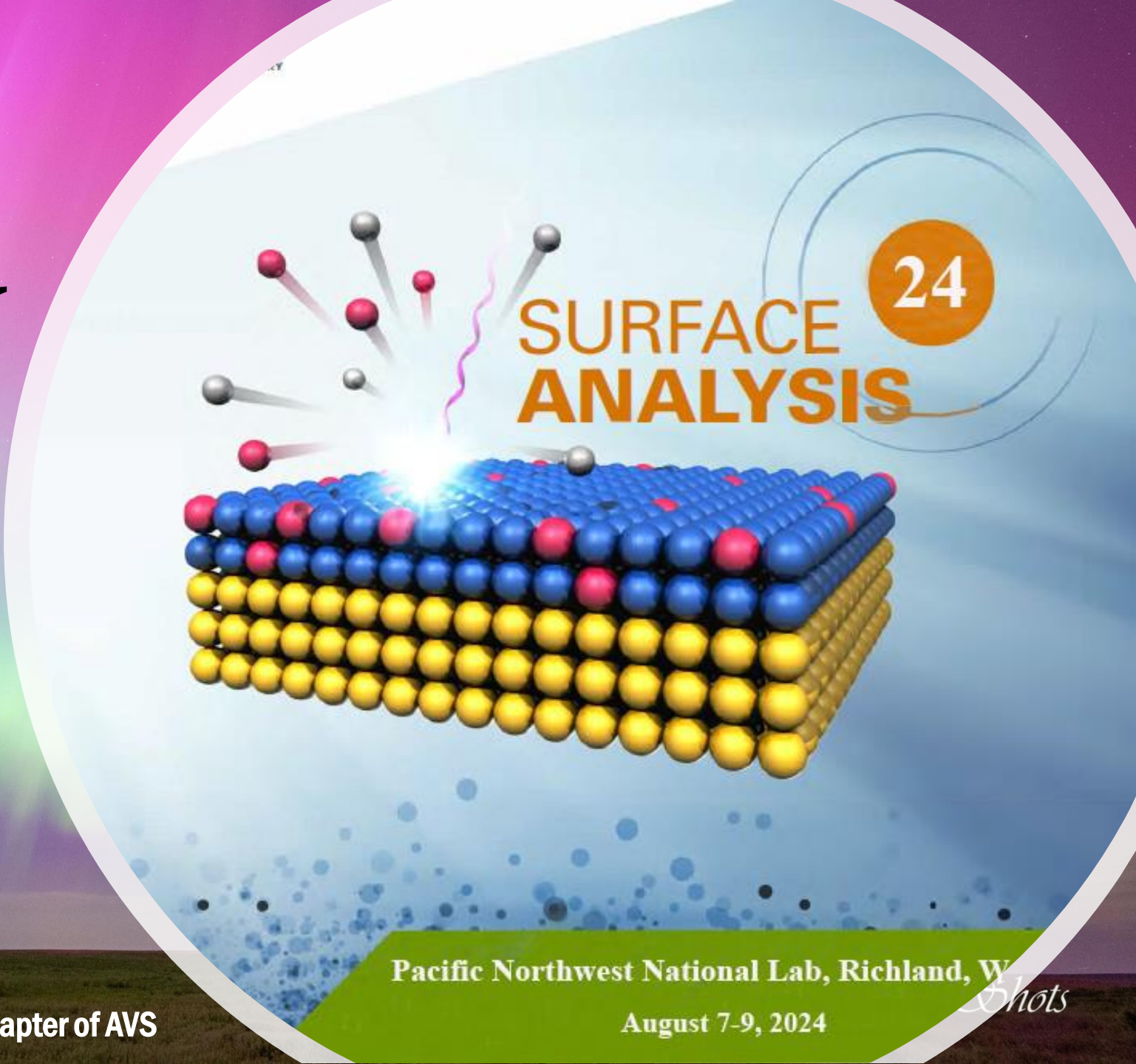


# Award Ceremony

August 8, 2024

**REACH MUSIUM**  
*Richland, WA*

**43<sup>rd</sup> Annual Symposium on Applied Surface Analysis  
And 35<sup>th</sup> Annual Symposium of the Pacific Northwest Chapter of AVS**



Pacific Northwest National Lab, Richland, WA

August 7-9, 2024

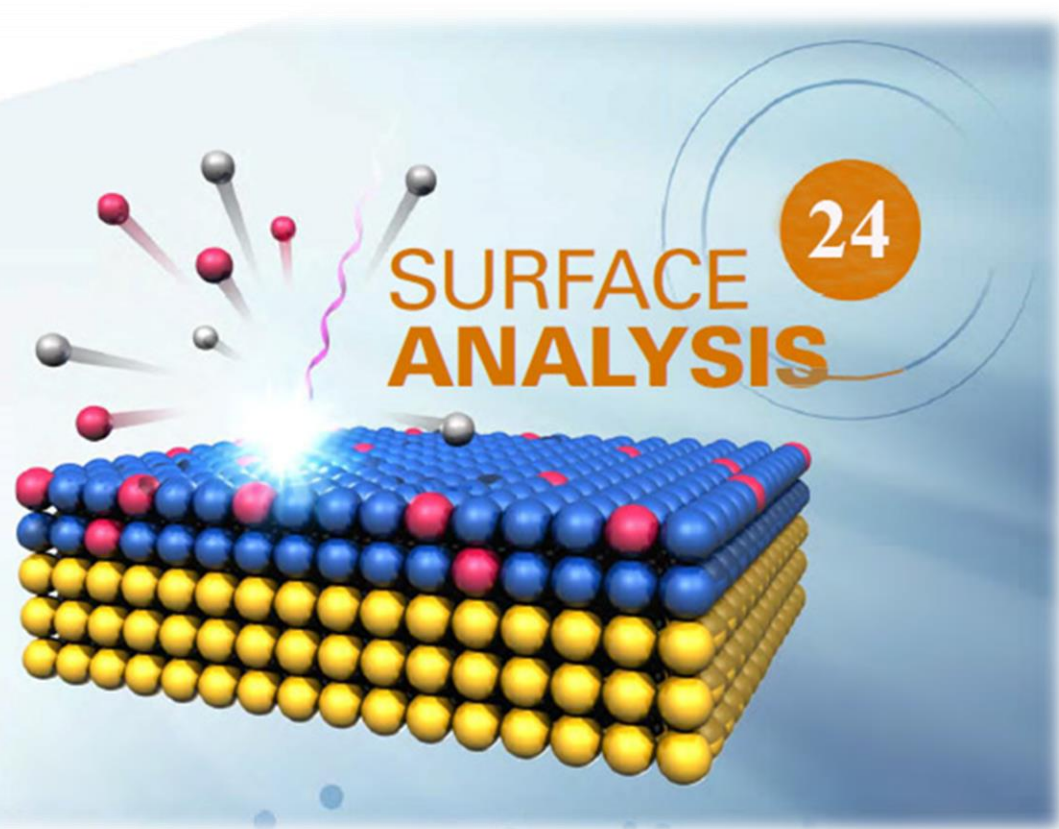
*shots*

# Welcome to Surface Analysis '24 Banquet and Award Ceremony

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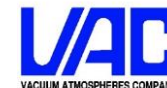
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# Thank You Sponsors!



## Conference Co-Chairs

Vijay Murugesan  
*Pacific Northwest National Lab*

Ajay Karakoti  
*Pacific Northwest National Lab*

## Program Committee:

Arthur Barnard, *University of Washington, USA*  
Mark Engelhard, *Pacific Northwest National Lab*  
David Ginger, *University of Washington, USA*  
Stephen Golledge, *University of Oregon, USA*  
Konstantinos Goulas, *Oregon State University, USA*  
Liane Moreau, *Washington State University, USA*  
Alex Shard, *National Physical Lab, UK*  
Vincent Smentkowski, *GE, USA*  
Karthik Srinivasan, *Boise State University, USA*

## Local Arrangements:

Theva Thevuthasan, *Pacific Northwest National Lab*  
Shuttha Shutthanandan, *Pacific Northwest National Lab*  
Tiffany Kaspar, *Pacific Northwest National Lab*  
Joe Gray, *Palmborg Associates*



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# *Outstanding Performance Award*

For Exceptional Planning and Execution



**Heather Roney**

*Pacific Northwest National Lab*

**“Your thorough planning and flawless execution made the conference a remarkable success”**

# Outstanding Performance Award



**\$100 Cash**

**Daniel Gomez**

*St Stephen's Academy*

**Advaita Motkuri**

*Richland High School*

**Natalia de Vera**

*Hanford High School*

**Navaj Nune**

*Hanford High School*

**Srithan Thallapally**

*Richland High School*



**Ananya Gubba**

*Hanford High School*



**Oliver A Melville**

*Hanford High School*



**Remy Todd**

*Hanford High School*



**Aashrita Bhamidimarri**

*Hanford High School*

## High School Student Poster Presentation

# *Undergraduate Student Poster Competition*

Total Number of Posters: 6

Science: Impact  
Involvement

Poster: Organization

Presenter: Explanation  
Ability to handle Questions

Judges:

1. Dr. Theva Thevuthasan, *Pacific Northwest National Lab*
2. Dr. Bhuvaneswari M. Sivakumar, *Pacific Northwest National Lab*
3. Dr. Semanti Mukhopadhyay, *Pacific Northwest National Lab*
4. Dr. Pravalika Butreddy, *Pacific Northwest National Lab*

*1<sup>st</sup> Place Award*

\$350 Cash

**Hannah Chang**  
*Seattle Pacific University*

Analyzing the Structure-Property Behavior of Salt Hydrates as Promising Materials for Thermal Energy Storage

*Undergraduate Student Poster Competition*  
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*1<sup>st</sup> Place Award*

\$350 Cash

**Tatiana Serrano-Zayas**

*University of Puerto Rico at Mayaguez*

Exploring CO<sub>2</sub> Hydrogenation of Rhodium Bis(diphosphine) Complex in Protein Scaffolds

*Undergraduate Student Poster Competition*

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*2<sup>nd</sup> Place Award*

**Grace Robinson**  
*Whitworth University*

**\$200 Cash**

Secondary metabolites in bioenergy plant root exudates: chemical characterization and microbial utilization

*Undergraduate Student Poster Competition*

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*3<sup>rd</sup> Place Award*

**\$150 Cash**

**Maya Ramavarapu**  
*University of Illinois at Urbana  
Champaign*

Solid State Chemistry for the Synthesis and Characterization of Ternary Metal Chlorides

*Undergraduate Student Poster Competition*

*3<sup>rd</sup> Place Award*

**R. Joseph Perko**  
*University of Idaho*

**\$150 Cash**

Viscosity and Self-Diffusion Coefficients of Generalized Lennard-Jones Substances

*Undergraduate Student Poster Competition*

*3<sup>rd</sup> Place Award*

\$150 Cash

**Andrew Ho**

*Cal Poly San Luis Obispo*

Doping effect on electronic and electrochemical properties of high entropy oxide thin films



*Undergraduate Student Poster Competition*

*@Shuttha Shots*

# *Graduate Student Poster Competition*

Total Number of Posters: **26**

Science : Originality  
Impact  
Quality

Poster: Organization  
Clarity  
Appearance

Presenter: Explanation  
Ability to handle Questions

Judges:

1. **Prof. Connor Bischak**, *University of Utah*
2. **Dr. Brelon May**, *Idaho National Lab*
3. **Dr. Dan Thien Nguyen**, *Pacific Northwest National Lab*
4. **Prof. Karthik Srinivasan**, *Boise State University*

5. **Dr. Scott Smith**, *Pacific Northwest National Lab*
6. **Prof. Christopher Hendon**, *University of Oregon*
7. **Dr. Jose Ortiz-Garcia**, *Pacific Northwest National Lab*
8. **Prof. Arthur Barnard**, *University of Washington*



# *1<sup>st</sup> Place Award*

**Kavin Chakravarthy Thangaraj**

*Washington State University*

“In-Situ Multimodal Analysis of Copper Hydroxy Chloride for Enhanced Thermochemical Energy Storage ”

\$500 Cash + \$500 expenses to AVS National Conference

*Graduate Student Poster Competition*

# *1<sup>st</sup> Place Award*

**Jeffrey Dhas**  
*Oregon State University*

Understanding and control of the surface oxidation layers in Nb thin films

**\$500 Cash + \$500 expenses to AVS National Conference**

*Graduate Student Poster Competition*

*2<sup>nd</sup> Place Award*

**Saowaluk Soonthornkit**

*Oregon State University*

**\$350 Cash**

Perovskite Oxide  $\text{SrCo}_{0.5}\text{Ir}_{0.5}\text{O}_3$  as an Anodic Catalyst for Proton Exchange Membrane Water Electrolysis.

*Graduate Student Poster Competition*

*2025 Spring Shots*

# *3<sup>rd</sup> Place Award*

\$200 Cash

**Truc Phung**

*Oregon State University*

“Economically Competitive Production of Oleo-Furan Sulfonate Detergents from Furfural and Fatty Alcohols”



# *Graduate Student Poster Competition*

# *3<sup>rd</sup> Place Award*

**Hsin-Mei Kao**

**\$200 Cash**

***Oregon State University***

“Continuous-flow Synthesis and Characterizations of FeCrAl-Al<sub>2</sub>O<sub>3</sub> Composite Microparticles”

# *Graduate Student Poster Competition*

*3<sup>rd</sup> Place Award*

\$200 Cash

**Alvin Chang**

*Oregon State University*

“Investigation of Cobalt Telluride Restructuring Under Oxygen Evolution Reaction Conditions”

*Graduate Student Poster Competition*

# *Honorable Mention*

\$100 Cash

**Maria Paula Garcia Tovar**

*University of Puerto Rico - Mayagüez Campus*

“Study of Microplastics in Water: Formation and Raman Spectroscopy via Sonication of Polyethylene Terephthalate”

## *Graduate Student Poster Competition*

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# *Honorable Mention*

\$100 Cash

**Jacob Tenorio**

*Boise State University*

“Influence of Fluorination and Oxygenation Sources on the Thermal Atomic Layer Etching of MoS<sub>2</sub>”



## *Graduate Student Poster Competition*

# *Honorable Mention*

\$100 Cash

**Ningmo Cheng**

*Oregon State University*

“Dry Printing of Nanostructured Thin Films Enabled by Low-pressure Vapor Phase Microreactor Assisted Nanomaterial Deposition”



## *Graduate Student Poster Competition*

# *Emerging Leader Award*

## Finalists:

Christopher Hendon

Connor Bischak

Dan Thien Nguyen

Amal El-Ghazaly

*University of Oregon*

*University of Utah*

*Pacific Northwest National Lab*

*Cornell University*

## Judges:

1. Prof. Arthur Barnard, *University of Washington*
2. Dr. Tiffany Kaspar, *Pacific Northwest National Lab*
3. Dr. Ajay Karakoti, *Pacific Northwest National Lab*
4. Prof. Karthik Srinivasan, *Boise State University*

# *Emerging Leader Award*

# *Emerging Leader Award*

**Connor Bischak**

*University of Utah*

*“For Outstanding contributions to advancing the science of materials  
at the surfaces and interfaces”*