**2026 NSLS-II/CFN Users' Meeting**
**Poster Session**

**List of Posters**

| Poster Number | Poster Title | First Name | Last Name | Home Institution |
|---|---|---|---|---|
| 1 | Photovoltaic molecular photoelectron emission spectroscopy: devices, chlorophyll electron transfer dynamics, indentifying photo-activated molecular health risks, and electron transfer theory | John<br>Yuan-Hao<br>Charles | Patterson III<br>Li<br>Fortmann | The Knox School |
| 2 | Monolithic Oxidized Ultrathin Tantalum Oxide for Low-Voltage, Uniform Memristive Switching | Seunghoon | Yang | Brookhaven National Laboratory |
| 3 | Microplastics in Ribbed Mussels of the North and South Shore | Ashlyn | Burst | Eastport South Manor Junior Senior High School |
| 4 | Deep Lunar Mantle Cr and V redox states recorded on pyroclastic dunite revealing reduced moon interior | Roberto | Colina-Ruiz | The University of Chicago |
| 5 | Identification of microplastics in lab-grown versus naturally-sourced clams in Shinnecock Bay | Matthew | Keller | Eastport South Manor Junior-Senior High School |
| 6 | Roots and Rivalry - Why Buckthorn Outcompetes Pine: An Elemental Analysis of Root Cross Sections | Umber | Sharma | Newfield High School |
| 7 | Microplastics in Oysters in Port Jefferson Harbor | Jeffrey | Smith | Eastport South Manor Junior-Senior High School |
| 8 | Microplastics in commonly found animal meats and plant-based meats | Brooke | Stimpson | Eastport South Manor Junior-Senior High School |
| 9 | Analysis of MSDH across the Burkholderia genus and resolution of its structure in B. cenocepacia | Kelly | Mackey | Islip Union Free School District |
| 10 | Refinement of the 3-Dimensional Structure of the Dihydroorotase from Acinetobacter baumannii: An Alternative Target for Antimicrobial Compounds | Olivia | Marx | Eastport South Manor Junior-Senior High School |
| 11 | Revealing Current Density–Dependent Morphological Transition in Zinc Growth-Stripping via In Situ X-ray Imaging | Adesanmi | Adeniyi | Stony Brook University |
| 12 | Analyzing the Structure of Dihydroorotase | Sharika | Emran | Longwood Senior High School |
| 13 | Operando Coherent X-ray Imaging of Copper Electrodeposition Nucleation and Growth Dynamics | Yichen | Gan | Stony Brook University |

**2026 NSLS-II/CFN Users' Meeting**
**Poster Session**

## List of Posters

| Poster Number | Poster Title | First Name | Last Name | Home Institution |
|---|---|---|---|---|
| 14 | Next-Generation In-Situ Annealing Platform for Synchrotron-Based Thin-Films Materials Characterization | Christian | Lavoie | IBM Research |
| 15 | In-situ Multimodal Characterization of Microscale Vapor Cavity Physics in Metallic Additive Manufacturing | Haolin | Liu | Carnegie Mellon University |
| 16 | Heterogeneity Investigation of Solid Electrolyte Interface in Sodium Metal Anode | Chang-An | Lo | Stony Brook University |
| 17 | Synchrotron X-ray Investigation of Fission Product: Te effect on Ni-Cr Systems in LiCl-KCl Molten Salts | Ankita | Mohanty | Stony Brook University |
| 18 | Operando Synchrotron X-ray Investigation of Zirconium Effects on Ni-20Cr Corrosion in LiCl-KCl Molten Salt | Yuxiang | Peng | Stony Brook University |
| 19 | Barrier Height Engineering at V3Si-Si Interfaces for Quantum Device Applications | Preetha | Sarkar | Brookhaven National Laboratory |
| 20 | SAM-Flake: Automated 2D Material Flake Segmentation | Muzamil Hussain | Syed | Brookhaven National Laboratory |
| 21 | Advancing Metrology of Photoresist Line Gratings via CD-SAXS | Philipp | Wieser | Brookhaven National Laboratory |
| 22 | Atomically Revealing Bulk Point Defect Dynamics in Hydrogen-Driven<br>γ-Fe2O3 to Fe3O4 Transformation | Yupeng | Wu | SUNY Binghamton University |
| 23 | Nanostructure Transformations in Solid-State Metal Dealloying Revealed by Synchrotron X-ray and Laser-Induced Gradients | Carly | Zincone | Stony Brook University |
| 24 | Size and Oxidation State Tracking of Rh Catalysts on Rutile TiO2 by Ambient-Pressure XPS | Sabrina | Gericke | Brookhaven National Laboratory |
| 25 | AI-Driven Fluidics for Autonomous Precision Synthesis of Colloidal Nanoparticles | Yugang | Zhang | Brookhaven National Laboratory |
| 26 | Research on the role of enoyl-CoA hydratase in Mycobacterium ulcereans | Jaeleen | Cabrera | Longwood High School |
| 27 | Crystallographic Analysis of Thymidylate Kinase regarding Bacterial Resistance in Complex with Novel Ligands dTMP & ATP | Gabrielle | Decapua | Connetquot High School |

**2026 NSLS-II/CFN Users' Meeting**
**Poster Session**

## List of Posters

| Poster Number | Poster Title | First Name | Last Name | Home Institution |
|---|---|---|---|---|
| 28 | Crystallization and Initial Refinement of the Enoyl-CoA Hydratase (EchA 17) from Mycobacterium ulcerans | Robert | Drago | Eastport South Manor Junior-Senior High School |
| 29 | Towards Autonomous Sample Alignment in X-ray Scattering Using Multimodal Large Language Models (MLLMs) | Vamsi Krishna Satyanarayana | Vasa | Brookhaven National Laboratory |
| 30 | What lurks below? An Elemental Analysis of Heavy Metal Intake in Frangula Alnus and Pinus Strobus | Tiffany<br>Kiera<br>Gianna | Gao<br>Green-Wilson<br>Eugenio | Newfield High School |
| 31 | X-Ray Crystallographic Analysis and Refinement of Burkholderia ambifaria Beta-lactamase<br>to Inform Novel Alternative Inhibitors | William | Steinacher | Eastport South Manor Junior-Senior High School |
| 32 | Processive Pathway of Solvent-Induced Self-Assembly of PS-b-P2VP Thin Films | Jonathan | Failla | Stony Brook University |
| 33 | Acetic Acid-Modulated Al2O3 Atomic Layer Deposition on Monolayer MoS2 for Controlled Nucleation | Hwan | Oh | Brookhaven National Laboratory |
| 34 | Impact of Silica Surface Chemistry on Nucleation of Ruthenium Area-Selective Atomic Layer Deposition | Shixian | Ha | Stony Brook University |
| 35 | Defect Engineering Driven by Ta Phase Control for Reliable Resistive Switching in Ultra-Thin TaOx Memristors | Donghyun | Lee | Brookhaven National Laboratory |
| 36 | Room-Temperature Single-Photon Emission from Atomically Precise Gold Nanoclusters | Abhrojyoti | Mazumder | Carnegie Mellon University |