

## 2024 NSLS-II & CFN Users' Meeting Poster Session

- Presenters are responsible for **bringing printed posters to the venue**: Berkner Hall, BNL

- Posters should be no larger than 3 feet wide by 4 feet high, using PORTRAIT orientation. DO NOT EXCEED THIS SIZE. Posters will be pinned to the poster wall at Berkner Hall. The poster must be contained on one sheet of paper (not as poster board).

- All posters must arrive for setup at Berkner Hall on May 13 (Mon) between 7:30 a.m. and 5:00 p.m. A supply of push pins will be available in the poster set-up area for pinning posters to the poster wall.

- Posters will be available for viewing 9am-5pm Mon-Wed (self-direct) during the Users' Meeting at Berkner Hall. Poster viewing and judging will be **May 13 (Mon), 5:30-7:30PM**. Presenters are expected to be available during the entire judging session.

Poster#	Last Name	First Name	Affiliation	PosterTitle	ResearchField
1	Stephanie	Elena	Stony Brook University	Understanding Enzymatic Degradation of Poly(L-lactic acid) by Various Characterization Techniques	Materials Science
2	Sharma	Umber	Newfield High School	A comparison of the Root Epidermis of Pinus strobus and Frangula alnus Utilizing Elemental Analysis	Geological and Environmental Sciences
3	Lin	Yang	Brookhaven National Laboratory	X-ray scattering-based scanning tomography for imaging and structural characterization of cellulose in plants	Life Sciences
4	Chung	Cheng-Chu	Stony Brook University	Accelerating Discovery of Solid-State Thin-Film Metal Dealloying Transitions through Laser Thermal Gradient Treatment	Materials Science
5	Lee	Won-Il	Stony Brook University	Aluminum based hybrid resist synthesized by molecular layer deposition for electron beam lithography	Materials Science
6	Deegan	Ryan	West Islip High school	Analyzing C.elegans as a Cancer Model Using infrared Microspectroscopy	Life Sciences
7	Miranda	Emilia	West Islip High School	Analyzing Microplastic Quantity, Location, and Chemical Composition in Farmed Raised vs Wild Caught Shrimp Using Infrared Spectroscopy	Geological and Environmental Sciences
8	Hughes	Justin	University of Pennsylvania	Autonomous Exploration of Process-Structure-Property Relationships in Polymer Nanocomposites	Materials Science
9	Razzaq	Haider	Longwood High School	Characterization of Late Holocene Long Island Ceramics Using X-Ray Fluorescence Microscopy Techniques	Geological and Environmental Sciences
10	Xiang	Shuting	Stony Brook University	CO2 Hydrogenation over Rhodium Cluster Catalyst Nucleated within a Manganese Oxide Framework	Materials Science
11	Grandfield	Taylor	Stony Brook University	Combining infrared-radiofluorescence measurements with elemental and oxidation state mapping of K-feldspar mineral grains for dating purposes	Geological and Environmental Sciences
12	Gan	Yichen	Stony Brook University	Deciphering Copper Pulse Electrodeposition Dynamics with Synchrotron X-ray Nanoimaging	Materials Science
13	Blanco	Derek	Shoreham-Wading River High School	Determination of Chemical Composition in Pond Sediment by Tender Energy X-ray Absorption Spectroscopy	Geological and Environmental Sciences
14	Kennedy	Julia	West Islip High school	Development of a Spectral Library for the Identification of Microplastics through Infrared Spectroscopy	Materials Science
15	Guo	Peijun	Yale University	Dual-Hyperspectral Optical Pump-Probe Microscopy with Single-Nanosecond Time Resolution	Materials Science
16	Carter	Julia	Newfield High school	Elemental Analysis of Soils Adjacent to Frangula alnus and Pinus strobus in a Suffolk Country Park	Geological and Environmental Sciences
17	Wang	Xiaoran	Stony Brook University	Uncovering the structure-dynamics-property relationship of reinforced rubbers under strain	Materials Science
18	Gauer	Aiden	Stony Brook University	Fabrication of nanotopographical polymer surfaces for bactericidal properties	Materials Science
19	Cetindag	Semih	Brookhaven National Laboratory	Encoding Self-Assembled Domain Orientation in Spray Deposited Block Copolymer Thin Films	Nanosciences
20	Xi	Zhaoyi	Brookhaven National Laboratory	Enhancing Photoelectrochemical Water Splitting Performance via Controllable Deposition of BiVO4 by Pulsed Laser Deposition	Materials Science
21	Podolska	Emily	West Islip High school	Evaluating the safety of herbal supplements through mineral content	Other
22	Schauer	David	Brown University	Exploring nanoscale phenomena at 3-ID HXN: From enhanced thermal conductivity in copper-carbon materials to probing tailored surface properties of gold nanorods	Nanosciences
23	Ronne	Arthur	Stony Brook University	High Voltage Na-ion Cathodes Enabled Through Copper and Oxygen Redox	Materials Science
24	Greenberg	Ariel	Shoreham-Wading River High School	How Mineral and Chemical Sunscreen Affects Aquatic and Terrestrial Photosynthetic Organisms	Geological and Environmental Sciences
25	Lam	Abigail	West Islip HS	Identification of Microplastics Isolated from Sediments Across Long Island	Geological and Environmental Sciences
26	Saharan	Chirag	Stony Brook University	Investigating Cobalt Oxide Particle Size Effects on Redox Kinetics for Thermal Energy Storage by In Situ Spectroscopic Imaging and Nano-tomography	Materials Science
27	Li	Shunran	Yale University	Large Exchange-Driven Intrinsic Circular Dichroism of a Chiral 2D Hybrid Perovskite	Materials Science
28	Chaudhry	Aamina	Longwood High School	Long Island Steatite Sourcing from Rhode Island Quarries During the Late Holocene Era	Geological and Environmental Sciences
29	Zheng	Xiaoyin	Stony Brook University	Machine-Learning Enhanced Super-Resolution X-ray Absorption Spectroscopic Nano-Imaging	Materials Science
30	Mohanty	Ankita	Stony Brook University	Morphological and Chemical Evolution of Metallic Nanoparticles at the Interface with Molten Salt: A Multimodal In Situ Synchrotron Study	Materials Science
31	Lo	Chang-An	Stony Brook University	Multimodal Investigation of the Rate - Support Chemistry - Electrodeposition Structure Interdependence in Sodium Metal Anodes	Materials Science
32	Barry	Parker	Eastport South Manor Jr/Sr High School	Novel APO structure of Beta Lactamase from Burkholderia multivorans	Life Sciences
33	Bruno	Christopher	Eastport South Manor Jr/Sr High School	Novel APO structure of the tRNA (N1G37) Methyltransferase of Mycobacterium marinum	Life Sciences
34	Orson	Keithen	University of Virginia	Oxidation of NiCr and NiCrMo - unraveling the role of Mo with XPEEM studies	Materials Science
35	Anbalagan	Aswin Kumar	Brookhaven National Laboratory	Probing Buried Interface Properties in Ta/Sapphire Superconducting Resonators	Materials Science
36	Kankanallu	Varun	Stony Brook University	Spatial and Chemical Heterogeneity in Aqueous Zn/MnO2 batteries: Role of Zn and Mn Containing Complexes	Materials Science
37	Amarasinghe	Sandun	New Jersey Institute of Technology	Structural Phases of CsPbBr3 Under Varying Pressure	Condensed Matter Physics
38	Ha	Shixian	Stony Brook University	Surface- and Temperature-dependent Atomic Layer Deposition of Ruthenium Thin Films for Extremely Scaled Microelectronics Interconnect Applications.	Materials Science
39	Yen	Dean	Stony Brook University	Synchrotron characterization of the interphases in solid-state batteries with polymer electrolyte	Materials Science
40	Yang	Seunghoon	Brookhaven National Laboratory	Tantalum Oxide Memristor with CMOS Integration for Energy Efficient Computing	Materials Science
41	Tishchenko	Alexander	Shoreham-Wading River High School	The impact of different environmental factors on the chemical degradation of Lithium-Ion Batteries.	Materials Science
42	Peng	Yuxiang	Stony Brook University	Tracking Chemical Evolution of Cr Ions in Molten LiCl-KCl Salts via In Situ X-ray Absorption Spectroscopy	Materials Science
43	Bajaj	Yashasvi	Stony Brook University	Structural and dynamical heterogeneities of isotactic polypropylene adsorbed onto carbon fiber	Materials Science
44	Tan	Xiaodong	Northwestern University	X-Ray Fluorescence Microscopy showing the Distribution of Cisplatin in the Cochlear	Life Sciences
video	Bailey	Elizabeth	University of California Santa Cruz	<a href="#">Understanding chemical histories of carbonaceous chondrites with micro-XAS</a>	Geological and Environmental Sciences