

Session	Date	Start Time	End Time	Proceedings Number	Presentation Title	Presenting Author
A01.1P	8/1/2022	3:00 PM	5:00 PM	737	Applications of a Triple Beam Microscope in Materials Science	Stéphanie Bessette
A01.1P	8/1/2022	3:00 PM	5:00 PM	738	Plasma FIB applications in Life Science: from large volumes to cryo-lamella preparation	Daniela Slamková
A01.1P	8/1/2022	3:00 PM	5:00 PM	739	Possible Approaches for Combined Use of Xenon and Gallium Ion Sources for Task Specific Focused Ion Beam Sample Preparation	Ladislav Klimša
A01.2P	8/2/2022	3:00 PM	5:00 PM	740	Cryo-FIB and Transmission Electron Microscopy of Cryoformed Metals	Daniel Huber
A01.2P	8/2/2022	3:00 PM	5:00 PM	741	Electron/Ion Microscopy of Low-temperature Sintered Y-TZP Ceramics with Additive of Lithium Disilicate Glass for Dental Restorations	Jiancun Rao
A01.2P	8/2/2022	3:00 PM	5:00 PM	742	Image Segmentation Methods for FIB-SEM Images of Cathodes	Andreas Grieser
A01.2P	8/2/2022	3:00 PM	5:00 PM	743	Improving Cryo-Electron Tomography Data Quality and Throughput by Minimizing Ice Contamination During Lamellae Fabrication using CERES Ice Shield	Caspar Jonker
A01.2P	8/2/2022	3:00 PM	5:00 PM	744	Laser Ablation: A New Approach to APT Specimen Preparation	Katherine Rice
A01.2P	8/2/2022	3:00 PM	5:00 PM	745	Raman spectroscopy and electron microscopy studies of Ga FIB and post-FIB Ar ion milling's impact on Si TEM specimens	Cecile Bonifacio
A01.2P	8/2/2022	3:00 PM	5:00 PM	746	Robotic fabrication of high-quality lamellae for aberration-corrected transmission electron microscopy	Mikhail Dutka
A01.2P	8/2/2022	3:00 PM	5:00 PM	747	T- SEM: Quantitative Composition and Structure Analysis of FIB lamellae in SEM	Meiken Falke
A02.1P	8/1/2022	3:00 PM	5:00 PM	750	AXON: An In-situ TEM Software Platform Streamlines Image Acquisition, Metadata Synchronization and Data Analysis, Enabling Deeper Understanding, and Improved Reproducibility of In-situ Experimental Results	Madeline Dressel Dukes
A02.1P	8/1/2022	3:00 PM	5:00 PM	751	Observation of Magnetic Domain Dynamics by Higher and Wider Ranges of Applied Magnetic Fields using Lorentz Microscopy	Ken Harada
A02.2P	8/2/2022	3:00 PM	5:00 PM	752	Etching Dynamics of Geometrically Confined Silicon Nanostructure	Kunmo Koo
A02.2P	8/2/2022	3:00 PM	5:00 PM	753	Extensible Real-Time Data Processing with Python in DigitalMicrograph	Benjamin Miller
A02.2P	8/2/2022	3:00 PM	5:00 PM	754	In-Situ ETEM Reveals Formation Mechanism of Single Pt Atom on Ru Nanoparticle Electrocatalysts for CO-Resilient Methanol Oxidation	John Watt
A02.2P	8/2/2022	3:00 PM	5:00 PM	N/A	Nanoparticle Feature Analysis Using Deep Neural Networks	William Pearson
A03.1P	8/1/2022	3:00 PM	5:00 PM	758	3D Structural Determination of Core-Shell Nanoparticles	Hyesung Jo
A03.1P	8/1/2022	3:00 PM	5:00 PM	759	Automatic 3D Reconstruction by Deep Learning Neural Networks Using Images Acquired via 4D-STEM Stereo Imaging	Gulnaz Ganeeva
A03.1P	8/1/2022	3:00 PM	5:00 PM	760	Correlative Mapping with AFM, STEM HAADF, and PF-QNM/SROM of Interpenetrating Networks of Elastomeric and Glassy Polymers	Alyssa Fielitz
A03.1P	8/1/2022	3:00 PM	5:00 PM	761	Determining the 3D Atomic Structure of Metallic Glass	Yao Yang
A03.1P	8/1/2022	3:00 PM	5:00 PM	757	Great White Pelican Mandible as Bioinspiration for Vehicle Design - Structural Bioprospecting Via X-Ray Micro-CT and Finite Element Analysis	Nicola Thomas
A03.1P	8/1/2022	3:00 PM	5:00 PM	762	High throughput Imaging and Increasing Resolution of X-ray Imaging at High Acceleration Voltages	Anasuya Adibhatla
A03.1P	8/1/2022	3:00 PM	5:00 PM	764	Increasing resolution of X-ray imaging at high acceleration voltages	Emil Espes
A03.1P	8/1/2022	3:00 PM	5:00 PM	765	Single-Atom Level Determination of 3D Surface Atomic Structure via Neural Network-Assisted Atomic Electron Tomography	Juhyeok Lee

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A03.1P	8/1/2022	3:00 PM	5:00 PM	766	Structural and chemical characterization of Janus nanoparticles with 2D and 3D electron microscopy	Jesus Valdez
A03.1P	8/1/2022	3:00 PM	5:00 PM	767	Volume Imaging By Tracking Sparse Topological Features In Electron Micrograph Tilt Series	Timothy Petersen
A03.2P	8/2/2022	3:00 PM	5:00 PM	768	Acquisition to Visualization: New approaches in dynamic in-situ X-ray imaging	Wesley De Boever
A03.2P	8/2/2022	3:00 PM	5:00 PM	769	Analysis of fibers, pores, and mechanical properties in μ CT-scan of a long fiber-reinforced thermoplastic	Oliver Rimmel
A03.2P	8/2/2022	3:00 PM	5:00 PM	61	Great White Pelican Mandible as Bioinspiration for Vehicle Design - Structural Bioprospecting Via X-Ray Micro-CT and Finite Element Analysis	Richard Johnston
A03.2P	8/2/2022	3:00 PM	5:00 PM	770	Impact of Chemical Composition on 3D Elemental Distribution and Damage Behavior of Cast Al-Si Alloys	Katrin Bugelnig
A03.2P	8/2/2022	3:00 PM	5:00 PM	771	In-situ 3D X-ray Tomography and Analysis of Reverse Osmosis Membranes Under Compaction	Yara Suleiman
A03.2P	8/2/2022	3:00 PM	5:00 PM	772	Investigation of the Multiscale Microstructure of an Age-Hardenable Metal Matrix Composite using Correlative Microscopy	Hrishikesh Bale
A03.2P	8/2/2022	3:00 PM	5:00 PM	773	MetalJet X-ray sources for high-speed imaging	Emil Espes
A03.2P	8/2/2022	3:00 PM	5:00 PM	774	Morphology and Growth Habit of a novel Flux-grown Layered Semiconductor KBiS ₂ revealed by Lab-based Diffraction-Contrast Tomography	Hrishikesh Bale
A03.2P	8/2/2022	3:00 PM	5:00 PM	775	Neutron Dark Field Tomography of Hierarchical Structures	Jacob LaManna
A03.2P	8/2/2022	3:00 PM	5:00 PM	777	Three-Dimensional Reconstruction of Printed Circuit Boards: Comparative Study between 3D femtosecond Laser Serial Sectioning and Optical Imaging versus 3D X-Ray computed tomography	Hongbin Choi
A03.2P	8/2/2022	3:00 PM	5:00 PM	778	Understanding 3D Biomineralization in Human Kidney Stones with Correlative X-Ray Micro-CT & X-Ray Fluorescence Microscopy	Katarzyna Matusik
A04.1P	8/2/2022	3:00 PM	5:00 PM	782	Acquisition and Analysis of Serial Electron Diffraction for Structure Determination	Asma Sarguroh
A04.1P	8/2/2022	3:00 PM	5:00 PM	783	Addressing Thickness Induced Contrast Reversals in Focused Probe Ptychography	Chuang Gao
A04.1P	8/2/2022	3:00 PM	5:00 PM	784	Fourier Ptychography in the TEM: Developments and Applications	Andrew Barnum
A04.1P	8/2/2022	3:00 PM	5:00 PM	785	High Resolution Three-Dimensional Reconstructions in Electron Microscopy Through Multifocus Ptychography	Marcel Schloz
A04.1P	8/2/2022	3:00 PM	5:00 PM	786	Signal Enhancement of Low-Dose Cryogenic 4D-STEM Data for Mapping of Beam Sensitive Materials	Danielle Markovich
A04.1P	8/2/2022	3:00 PM	5:00 PM	787	Towards Low-dose and Fast 4-D Scanning Transmission Electron Microscopy: New Sampling and Reconstruction Approaches	Amirafshar Moshtaghpour
A04.1P	8/2/2022	3:00 PM	5:00 PM	788	Uncovering In-Plane Domain Structures in Two-Dimensional Ferroelectric SnSe Using Machine-Learning Assisted 4D-STEM	Chuqiao Shi
A04.2P	8/3/2022	3:00 PM	5:00 PM	789	ab initio electrostatic potentials for 4D-STEM ptychographic reconstruction	Toma Susi
A04.2P	8/3/2022	3:00 PM	5:00 PM	790	Comparison of Compression Methods for Ptychographic Reconstructions through Decomposition of the Diffraction Patterns in Orthonormal Bases	Thomas Pekin
A04.2P	8/3/2022	3:00 PM	5:00 PM	791	Crystallization by amorphous particle attachment and the evolution of texture in biogenic calcium carbonate	Vanessa Schoeppler

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A04.2P	8/3/2022	3:00 PM	5:00 PM	792	Examining the relationship between local polarization and modulation variations in a relaxor ferroelectric tetragonal tungsten bronze by 4D STEM	Stephen Funni
A04.2P	8/3/2022	3:00 PM	5:00 PM	793	Exploring the 3D Resolution of Parallax Phase Reconstruction from 4D STEM: A Dopant Depth Case Study	Emmanuel Terzoudis-Lumsden
A04.2P	8/3/2022	3:00 PM	5:00 PM	795	Segmentation of "Important" Features in High Dimensional Nanodiffraction Datasets	Carter Francis
A04.3P	8/4/2022	10:00 AM	12:00 PM	796	4D-STEM Characterization of Low q Scattering in Conductive Polymers Used for Li-ion Battery Anodes	Hadas Sternlicht
A04.3P	8/4/2022	10:00 AM	12:00 PM	N/A	Analytic Dynamical Diffraction Solution for the Five-Beam Condition	Tristan O'Neill
A04.3P	8/4/2022	10:00 AM	12:00 PM	797	Assisting Phase Unwrapping in Ptychography Through Minimal Phase Accumulation for Low Energy Electron Ptychography	Arthur Blackburn
A04.3P	8/4/2022	10:00 AM	12:00 PM	798	Automated Grain Segmentation for Crystal Orientation mapping in 4D Scanning Transmission Electron Microscopy	Daniel Zeitler
A04.3P	8/4/2022	10:00 AM	12:00 PM	799	Fast Ptychographic Reconstruction for Sparse Binary Ptychography data.	Emma Hedley
A04.3P	8/4/2022	10:00 AM	12:00 PM	800	Finding Optimal Imaging Parameters for Measuring Long-Range Electric Fields with 4DSTEM by Utilizing STEM Multislice Simulations	Damien Heimes
A04.3P	8/4/2022	10:00 AM	12:00 PM	801	In-Situ 4D-STEM Study of Amorphous Titanium Oxide for Water Splitting Application	Mehrdad Abbasi Gharacheh
A04.3P	8/4/2022	10:00 AM	12:00 PM	803	Towards spatial mapping of atomic vibration amplitudes in thermoelectric materials: quantitative convergent beam electron diffraction (QCBED) study of BiCuOQ (Q = S, Se, Te)	Yukun Liu
A05.1P	1-Aug-22	3:00 PM	5:00 PM	823	Cathodoluminescence Response of Barite at Room and Liquid Nitrogen Temperatures	Heather Lowers
A05.1P	8/1/2022	3:00 PM	5:00 PM	804	Deep-sea nodules metallo-thermic reduction as a new "natural alloys" concept	Jaromír Kopeček
A05.1P	8/1/2022	3:00 PM	5:00 PM	805	Five Years of Live Chemical Imaging: From the First Live Maps to Real-time Dynamic Imaging Combining Morphology and Chemistry with Overlap Corrected EDS Data	Simon Burgess
A05.1P	8/1/2022	3:00 PM	5:00 PM	806	Fully Quantitative Mapping of Igneous Phenocrysts by EPMA Using Mean Atomic Number Background Estimates.	Scott Boroughs
A05.1P	8/1/2022	3:00 PM	5:00 PM	807	Identification and Characterization of Gold Mineralization in a Fault Controlled Breccia	Timothy Miller
A05.1P	8/1/2022	3:00 PM	5:00 PM	808	Large Area Standards-based Quantitative EDS Mapping of a Monzogabbro Sample	Stephen Seddio
A05.1P	8/1/2022	3:00 PM	5:00 PM	809	The Promises when WDS Supports the EDS X-ray Analysis in SEM and the Evaluation Algorithms do Merge	Frank Eggert
A05.2P	8/2/2022	3:00 PM	5:00 PM	810	A Comparison of Quartz Source Determination Using Supervised Machine Learning verses a Traditional Ratio Approach	Angela Halfpenny
A05.2P	8/2/2022	3:00 PM	5:00 PM	811	Benefits of Using a 4 srad XEDS Detector in Quantitative 3D-Compositional Analysis of Core@shell Nanoparticles	Adrián Pedraza-Tardajos
A05.2P	8/2/2022	3:00 PM	5:00 PM	812	Fast Automatic Analytical Particle Analysis using an AI guided smart scan strategy	Pavel Potocek

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A05.2P	8/2/2022	3:00 PM	5:00 PM	814	Quantifying Pb in Microelectronic Electrodes to Mitigate Sn Whisker Growth with the use of Energy Dispersive X-Ray Spectroscopy (EDS) and Image Analysis	Luis Jauregui
A05.2P	8/2/2022	3:00 PM	5:00 PM	815	Towards Quantitative Maps of Lithium in the Scanning Electron Microscope	Raynald Gauvin
A05.3P	8/3/2022	3:00 PM	5:00 PM	817	Electro-catalytic behavior of high entropy alloy-graphene (HEA:G) composite	Ashwini Ravi
A05.3P	8/3/2022	3:00 PM	5:00 PM	818	Electron Backscattered Diffraction Analysis of Electrodeposited Copper Coatings for Canada's Used Nuclear Fuel Containers	Sang Bum Yi
A05.3P	8/3/2022	3:00 PM	5:00 PM	819	Microstructure Change of an Additively Manufactured High-Strength Titanium Alloy Over Large Areas Using Mapping and EBSD	Daniel Veghte
A05.3P	8/3/2022	3:00 PM	5:00 PM	822	Phase Differentiation based on X-Ray Energy Spectrum Correlation with an Energy Dispersive Spectrometer (EDS)	Nicolas Brodusch
A05.3P	8/3/2022	3:00 PM	5:00 PM	N/A	Precision Energy Dispersive Spectroscopy (EDS): Looking for Chemical Shifts	Rebekah Jin
A05.3P	8/3/2022	3:00 PM	5:00 PM	820	Probing grain-boundary structure and electrostatic characteristics in a SrTiO ₃ bi-crystal by 4D-STEM	Chao Yang
A05.3P	8/3/2022	3:00 PM	5:00 PM	821	TEM Study on the Middle Temperature Brittleness of HiSiMo Cast Irons at 400°C	Wenhui Zhu
A06.1P	8/2/2022	3:00 PM	5:00 PM	829	A Reconstruction Wizard for Electrostatic Reconstruction	Brian Geiser
A06.1P	8/2/2022	3:00 PM	5:00 PM	830	Benefits of a Full Field of View in Atom Probe Tomography	David Reinhard
A06.1P	8/2/2022	3:00 PM	5:00 PM	831	Deep-Ultra-Violet Atom-Probe Tomography Using Automation to Understand Operational Parameter Space: A Progress Report	Ty Prosa
A06.1P	8/2/2022	3:00 PM	5:00 PM	832	Nanoscale clusters and heterogeneities in engineering and amorphous alloys	Stephan Gerstl
A06.1P	8/2/2022	3:00 PM	5:00 PM	833	Origin of High-Density Zone Lines in Field Desorption Patterns of Tungsten	Jiayuwen Qi
A06.1P	8/2/2022	3:00 PM	5:00 PM	834	Simultaneous Voltage and Laser Pulsing in Atom Probe Tomography	David Larson
A06.1P	8/2/2022	3:00 PM	5:00 PM	835	Structural Change of MgNiY Long Period Stacking Order Investigated with Atom Probe	Yimeng Chen
A07.1P	8/4/2022	10:00 AM	12:00 PM	836	A Straightforward Method for Measuring the Elastic and Inelastic Mean Free Paths for Scattering of Fast Electrons in Technologically Important Thin-Film Oxides	Adham Basha
A07.1P	8/4/2022	10:00 AM	12:00 PM	837	Development of Observation Method for Spatial Electromagnetic Fields by Using Conventional Scanning Electron/Ion Microscope	Ken Harada
A07.1P	8/4/2022	10:00 AM	12:00 PM	838	Simple Method to Determine the Rotation Between a TEM Image and Diffraction Pattern	Alexana Roshko
A09.1P	8/3/2022	3:00 PM	5:00 PM	842	Application of a Correlative fs-Laser Workflow for Fast and Easy Feature Access in Failure Analysis of Recycled Automotive Body Parts	Tim Schubert
A09.1P	8/3/2022	3:00 PM	5:00 PM	843	Observations of Damage, Defects, and Structuring in Femtosecond Laser Ablated Surfaces	McLean Echlin
A09.1P	8/3/2022	3:00 PM	5:00 PM	844	Preparing high-quality cross-section surfaces by Ultrashort Pulse Laser ablation and Plasma FIB	Remco Geurts
A10.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Electron Microscopy and Electrochemical Studies of W ₃ O ₈ Thin Films Deposited by Pneumatic Spray Pyrolysis	Dwight Acosta

Session	Date	Start Time	End Time	Proceedings Number	Presentation Title	Presenting Author
A10.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Characterizing the Back-Contact Interface of Bi-Facial Poly-Crystalline CdTe Devices Using Transmission Electron Microscopy	John Farrell
A10.1P	8/4/2022	10:00 AM	12:00 PM	847	Eggshell nanoparticles and their effect on moisture barrier properties of gellan gum films by morphological analysis	Benjamín Arredondo-Tamayo
A10.1P	8/4/2022	10:00 AM	12:00 PM	848	Elucidation of 3D Chemical and Physical Architecture of Soil Microstructures by Correlating Spectro-Microscopic Techniques and Developing Novel Computational Methods	Alexander Ost
A10.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Graphene Coated Kapton Tape as a Sample Support Grid for Electron Microscopic Imaging	Prem Thapa-Chetri
A10.1P	8/4/2022	10:00 AM	12:00 PM	849	Identification and Particle Size Determination of ²³⁸ Pu-bearing Particles via Alpha Spectrometry, Autoradiography and Scanning Electron Microscopy	Kimberly Wurth
A10.1P	8/4/2022	10:00 AM	12:00 PM	850	Identifying nanocrystalline domains identified within oxide aerogels using inverse-fast-Fourier-transform techniques: Comparing automated mask generation with hand-segmentation	Todd Brintlinger
A10.1P	8/4/2022	10:00 AM	12:00 PM	851	Investigation of Exfoliated Graphene Flakes and Their Self-Assembly Capabilities to Form Thin Coatings	Kaleb Hood
A10.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Multi-Method Porosity Comparisons and Adjusted Image-Based Porosity for Source Rocks	Shannon Eichmann
A10.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Probing the defect landscape in NdNiO ₃ thin films	Chao Yang
A10.1P	8/4/2022	10:00 AM	12:00 PM	852	Root Cause Spectroscopic Failure Investigation Aided by High Resolution SEM/EDS, FT-IR, XPS Instruments and Microscopes.	Jeanette vajki Vass
A10.1P	8/4/2022	10:00 AM	12:00 PM	853	Ti ₃ C ₂ TX MXene Hole Transport Layer for Polymer Non-Fullerene Solar Cells	Bhoj Gautam
A99.1P	8/4/2022	10:00 AM	12:00 PM	867	Characterization of Laundry Microplastics Through Automated Image Analysis	John Hegarty
A99.1P	8/4/2022	10:00 AM	12:00 PM	868	Depth Profile Chemical State Analysis of Oxide Films on High Temperature Treated Stainless Steel Using EPMA with a Soft X-ray Spectrometer at Variable Accelerating Voltage	Shiori Kamijyo
A99.1P	8/4/2022	10:00 AM	12:00 PM	869	Hydrothermally Developed Nanomaterials and Their Surface Modification Using APTES And TEOS.	Dhirendra Kumar Tiwari
A99.1P	8/4/2022	10:00 AM	12:00 PM	870	Structural Characterization of High entropy alloy (FeCoCrNiMn) Synthesized by mechanical Alloying.	Cintya Arroyo
A99.1P	8/4/2022	10:00 AM	12:00 PM	871	Synthesis & characterization of Europium, Yttrium and Iron based Nanoparticles.	Dhirendra Kumar Tiwari
B02.1P	8/1/2022	3:00 PM	5:00 PM	872	3D reconstruction of plant leaf cells using TEM and FIB-SEM	Bernd Zechmann
B02.1P	8/1/2022	3:00 PM	5:00 PM	873	Cryo-EM Structural Studies of the Vibrio cholerae Flagellum	Victoria Pappas
B02.1P	8/1/2022	3:00 PM	5:00 PM	874	High Resolution Cryo-EM Structure of Drosophila Thick Filaments	Fatemeh Abbasi Yeganeh
B02.1P	8/1/2022	3:00 PM	5:00 PM	875	In-Situ TEM Studies on Nanoparticle Interactions with Bacterial Cells	Abhijit Phakatkar
B02.1P	8/1/2022	3:00 PM	5:00 PM	876	Multi-Signal Characterization of Biological Structures at Low-Voltage Using STEM-in-SEM	Kelly Parker
B02.2P	8/2/2022	3:00 PM	5:00 PM	879	Cryo-EM Reveals New Species-specific Proteins and Symmetry Elements in the Legionella pneumophila Dot/Icm T4SS	Jacquelyn Roberts

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B02.2P	8/2/2022	3:00 PM	5:00 PM	880	CryoEM structure of a vascular KATP channel in the presence of activating Mg-nucleotides	Camden Driggers
B02.2P	8/2/2022	3:00 PM	5:00 PM	881	Glacios enhancements for high throughput, high resolution structure determination supporting multiple acquisition methods without performance compromise.	Alevtyna Yakushevksa
B02.2P	8/2/2022	3:00 PM	5:00 PM	882	Structural analysis Helicobacter pylori VacA's channel in membrane	Sarah Connolly
B02.2P	8/2/2022	3:00 PM	5:00 PM	883	Uncovering Tumor Suppressor P53 Dynamics Using Microprocessor Materials	Maria Soares
B03.1P	8/3/2022	3:00 PM	5:00 PM	889	Improvements in Speed and Hole Finding in Leginon	William Rice
B03.1P	8/3/2022	3:00 PM	5:00 PM	872	Training Opportunities at the Pacific Northwest Cryo-EM Center	Janette Myers
B03.1P	8/3/2022	3:00 PM	5:00 PM	890	Workflow Optimization for Cryo Electron Microscopy using Side Entry Dual Grid Cryo Transfer Holder and Automated Cryogen Auto-Refilling System	Matthias Stumpf
B03.1P	8/3/2022	3:00 PM	5:00 PM	897	Benchmarking Cryo-EM Single Particle Analysis Workflows at CEMRC	Anil Kumar
B03.1P	8/3/2022	3:00 PM	5:00 PM	899	Cryo-Electron Microscopy of Extracellular Vesicles	Kai Cai
B03.2P	8/4/2022	10:00 AM	12:00 PM	891	Controlled cryo-EM sample preparation using the VitroJet	Maaik Schotman
B03.2P	8/4/2022	10:00 AM	12:00 PM	892	CryoVR: a virtual reality training system for CryoEM hands-on operations	Daoyi Li
B03.2P	8/4/2022	10:00 AM	12:00 PM	893	Evaluating the chameleon Sample Preparation Device: Case Studies	Mahira Aragon
B03.2P	8/4/2022	10:00 AM	12:00 PM	894	MerlinEM, Hybrid Pixel Array Counting Detector for Transmission Electron Microscopy	Matus Krajenak
B03.2P	8/4/2022	10:00 AM	12:00 PM	895	Not All Vacuum Is Created Equal	Lambertus Alink
B03.2P	8/4/2022	10:00 AM	12:00 PM	896	Reproducible lamella preparation for electron cryo-tomography by in-situ thickness estimation during fluorescence-guided FIB milling	Radim Skoupy
B05.1P	8/3/2022	3:00 PM	5:00 PM	901	Antifungal Activity Changes of Zinc Oxide and Zinc Peroxide Nanoparticles.	Iliana Ruiz-Leyva
B05.1P	8/3/2022	3:00 PM	5:00 PM	902	Antifungal Evaluation of Zn and Zn-Cu Oxichloride Nanoparticles.	Iliana Ruiz-Leyva
B05.1P	8/3/2022	3:00 PM	5:00 PM	903	Automatic Sample Processing for vEM in a Mouse Model of Breast Cancer	Erin Stempinski
B05.1P	8/3/2022	3:00 PM	5:00 PM	904	Comparison of Different Microscopic Sample Preparation and Imaging Techniques for Visualization of Connective Tissue Components in Peripheral Nerve	Hao Fu
B05.1P	8/3/2022	3:00 PM	5:00 PM	905	Defects in Cytoplasmic Assembly and Sorting of US9 Pseudorabies Virus Mutants	Steven Adamou
B05.1P	8/3/2022	3:00 PM	5:00 PM	906	Detection and Identification of SARS-CoV-2 in Placental and Neonate Tissues	Hannah Bullock
B06.1P	8/4/2022	10:00 AM	12:00 PM	N/A	Nanoscale Quantitative Molecular Mapping of Biodegradable Poly(ϵ -caprolactone)/Ascorbic Acid Blends via Infrared Photo-induced Force Microscopy (IR PiFM)	Derek Nowak
B06.1P	8/4/2022	10:00 AM	12:00 PM	911	Zirconia vs titanium dental implants demonstrate superior early healing in mice assessed with PEGASOS tissue clearing and two-photon microscopy	William Stenberg
B07.1P	8/2/2022	3:00 PM	5:00 PM	913	Characterization and optimization of OSTEM; a novel detection method for single- and multibeam scanning electron microscopy	Arent Kievits
B07.1P	8/2/2022	3:00 PM	5:00 PM	914	Computing for Optimized Biological Microscopy Data Processing and Analysis at The Rosalind Franklin Institute	Luís Perdigo

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B07.1P	8/2/2022	3:00 PM	5:00 PM	915	The crystalline structure and fibers of the Red Delicious cultivar apple cellulose by TEM and AFM	Liliana Edith Rojas-Candelas
B99.1P	8/4/2022	10:00 AM	12:00 PM	916	Comparison of Age-Related Tyramine Concentration in the Male Mouse Reproductive System	Solange Steadman
B99.1P	8/4/2022	10:00 AM	12:00 PM	917	Estuarine Copepod Internal Anatomy: An SEM Evaluation of Microsurgery	Stan Kunigelis
B99.1P	8/4/2022	10:00 AM	12:00 PM	918	Isolation of Striated Muscle Thick Filaments for Cryo-EM	Hosna Rastegarpouyani
B99.1P	8/4/2022	10:00 AM	12:00 PM	919	Novel Gelatin-Based Bioplastic Materials Designed to Replace Polystyrene and Polypropylene in Single-Use Hard Plastics	Bhoj Gautam
B99.1P	8/4/2022	10:00 AM	12:00 PM	920	Real-time GHz Ultrasonic Imaging of Nematodes at Microscopic Resolution	Anuj Baskota
B99.1P	8/4/2022	10:00 AM	12:00 PM	921	Transmission Electron Microscopy Using Hitachi's HILEM IL1000 Ionic Liquid as a Dispersion Agent for Fetuin-Mineral Complexes	Heather Berensmann
C01.1P	8/4/2022	10:00 AM	12:00 PM	923	Benchmarking the Performance of a New Photoelectron Source	Frances Quigley
C02.1P	8/3/2022	3:00 PM	5:00 PM	924	Broad Applications of Scanning Electron Microscopy and Energy-Dispersive Spectroscopy in Art Conservation	Jeffrey Pigott
C02.1P	8/3/2022	3:00 PM	5:00 PM	925	Identification of Increased Blood Brain Barrier Permeability in the Visual Cortex of the HIV-1 Transgenic Rat	Myla Worthington
C02.1P	8/3/2022	3:00 PM	5:00 PM	926	Microscopy Education In The Fourth Industrial Revolution	Mehdi Bolorizadeh
C02.1P	8/3/2022	3:00 PM	5:00 PM	927	On the Role of Microscopy in Mechanical Engineering Education	Constantin Solomon
C02.1P	8/3/2022	3:00 PM	5:00 PM	928	Ray-Tracing Electrons through a Magnetic Lens	David Landers
C02.1P	8/3/2022	3:00 PM	5:00 PM	929	The Application of Micro-Scale Analysis Tools in Industrial Problem Solving	Jeanette vajki Vass
C02.1P	8/3/2022	3:00 PM	5:00 PM	N/A	Virtual Microscopy - Nature Experience Radical Design (NERD) Jam	Sue Okerstrom
C02.1P	8/3/2022	3:00 PM	5:00 PM	733	Identification of Increased Blood Brain Barrier Permeability in the Substantia Nigra of the HIV-1 Transgenic Rat	Frank Denaro
C02.1P	8/3/2022	3:00 PM	5:00 PM	736	Teaching Histology During Covid-19 Restrictions	Frank Denaro
C03.1P	8/1/2022	3:00 PM	5:00 PM	931	The National Center for CryoEM Access and Training: Broadening Access to CryoEM Through Centralized Facilities	Edward Eng
C04.1P	8/1/2022	3:00 PM	5:00 PM	932	A high-throughput electron microscopy workflow and its applications in life sciences	Jordan Leadbetter
C04.1P	8/1/2022	3:00 PM	5:00 PM	933	Approaches Taken to Streamline and Consolidate Large Dataset Processing Techniques, with a Focus on Ptychography	Thomas Pekin
C04.1P	8/1/2022	3:00 PM	5:00 PM	934	Automation of TEM Alignment using Python Scripting	Shota Hisada
C04.1P	8/1/2022	3:00 PM	5:00 PM	936	Exploring Motifs and Their Hierarchies in Crystals via Unsupervised Learning	Jiadong Dan
C04.1P	8/1/2022	3:00 PM	5:00 PM	937	Phase-residue Removal Based on Sparse Modeling in Electron Holography	Yoshio Takahashi
C04.2P	8/2/2022	3:00 PM	5:00 PM	940	Automation of Supported Nanoparticle Recognition in Low Contrast STEM Images	Mads Lützen
C04.2P	8/2/2022	3:00 PM	5:00 PM	941	Development of a Flexible Ensemble Classification System for Microscopy	Tomas McIntee
C04.2P	8/2/2022	3:00 PM	5:00 PM	942	Electron Image Reconstruction for Pixelated Semiconductor Tracking Detectors Based on Neural Networks	Björn Eckert
C04.2P	8/2/2022	3:00 PM	5:00 PM	943	NexusLIMS-Euclid: a customizable data management software for microscopists with cloud computing outlook	Ao Liu
C04.2P	8/2/2022	3:00 PM	5:00 PM	944	Synthetic Data for Machine Learning and Novel Edge Detection to Measure Particle Size Distributions in TEM	Eoin Walsh

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C04.2P	8/2/2022	3:00 PM	5:00 PM	945	Understanding the Role of Neural Network Complexity and Receptive Field in Identifying Nanoparticles in TEM Images	Katherine Sytwu
C04.3P	8/3/2022	3:00 PM	5:00 PM	946	A Comparison of 3D and 2D U-Net Convolutional Networks for Segmentation in FIB-SEM Imagery	Rengarajan Pelapur
C04.3P	8/3/2022	3:00 PM	5:00 PM	947	Automated design of electron mirrors for multipass electron microscopy and 4D-STEM+EELS	Tyler Harvey
C04.3P	8/3/2022	3:00 PM	5:00 PM	948	Automatic Nondestructive Detection of Damages in Thermal Barrier Coatings Using Image Processing and Machine Learning	Andrew Sprague
C04.3P	8/3/2022	3:00 PM	5:00 PM	949	Data Analytics: Quality Measures for Image Information Content	Carol Heckman
C04.3P	8/3/2022	3:00 PM	5:00 PM	950	Fast Automatic PSFD (Point Spread Function Deconvolution) Using Edge Detection	Zach Russell
C04.3P	8/3/2022	3:00 PM	5:00 PM	952	Machine Learning Prediction of Valence and Coordination from EELS Spectra of Iron Containing Compounds	Samuel Gleason
C04.3P	8/3/2022	3:00 PM	5:00 PM	953	Software Package for Efficient Creation of Training Data for Machine Learning Classifiers from Micrographs	Mathieu Therezien
C04.3P	8/3/2022	3:00 PM	5:00 PM	954	Traceable Measurements using a Metrology Scanning Electron Microscope	Bradley Damazo
C04.3P	8/3/2022	3:00 PM	5:00 PM	N/A	Workflow Automation of SEM Grid Acquisitions for Nanoparticle Analysis	Sabrina Clusiau
C04.3P	8/3/2022	3:00 PM	5:00 PM	955	High throughput 3D Volumes data acquisition using AI	Tereza Konecna
P01.1P	8/2/2022	3:00 PM	5:00 PM	957	Direct Observation of Hydrogen Distribution in Pearlite	Yi-Sheng Chen
P01.1P	8/2/2022	3:00 PM	5:00 PM	959	Improving the Quantification of Deuterium in Zr Alloy Atom Probe Tomography Data	Megan Jones
P01.1P	8/2/2022	3:00 PM	5:00 PM	960	Ion-Beam Induced Structural Transformations in Austenitic Stainless Steel	Josh Sugar
P02.1P	8/2/2022	3:00 PM	5:00 PM	962	Electron Microscopy with Spin Polarization Analysis of 3D Topological Magnetic Domain Structure in Amorphous Fe/Gd Thin Films	Rich Moraski
P02.1P	8/2/2022	3:00 PM	5:00 PM	963	Implications on the tuning of gold nanorods interface: Post-synthesis modification using the electron beam in the transmission electron microscope	Eric Vazquez-Vazquez
P02.1P	8/2/2022	3:00 PM	5:00 PM	964	Micromagnetics Simulation as a Supplement to and Diagnostic for Lorentz Transmission Electron Microscopy	Jacques Reddinger
P02.1P	8/2/2022	3:00 PM	5:00 PM	468	Exploring the Cryogenic Phase Changes within 2D MoTe ₂ via TEM, 4DSTEM and Electron Spectroscopy Techniques	Samad Abdus
P04.1P	8/4/2022	10:00 AM	12:00 PM	966	Mechanical Properties of Bond Coatings and Ni-based Superalloys at Extreme Temperatures	Sanjit Bhowmick
P04.1P	8/4/2022	10:00 AM	12:00 PM	967	Mechanisms of cracking in pure magnesium during high strain rate plastic deformation	Pawel Nowakowski
P05.1P	8/2/2022	3:00 PM	5:00 PM	968	2D to 3D Structural Transformation of Calcium Oxalate Revealed by In Situ Graphene Liquid Cell TEM	Lioudmila Sorokina
P05.1P	8/2/2022	3:00 PM	5:00 PM	971	In situ TEM observations of thermally activated phenomena in materials under far-from-equilibrium conditions	Sriram Vijayan
P05.2P	8/3/2022	3:00 PM	5:00 PM	977	Electrochemical Dissolution and Redeposition of Metallic Nanostructures Revealed by Liquid Phase Transmission Electron Microscopy	Eva Bladt
P05.2P	8/3/2022	3:00 PM	5:00 PM	N/A	Applications of SPM Methods in Polymer Industry - Overview of Recent Advances	Johnpeter Ngunjiri

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P05.2P	8/3/2022	3:00 PM	5:00 PM	972	In Situ Solid-Phase Crystallization of Functional Ceramics in the Transmission Electron Microscope	Jenna Wardini
P05.2P	8/3/2022	3:00 PM	5:00 PM	500	In Situ Transmission Electron Microscopy Observation of 3C-SiC Heteroepitaxial Growth on Si Nanomembrane	Kangsik Kim
P05.2P	8/3/2022	3:00 PM	5:00 PM	973	In-situ Transmission Electron Microscopy Study of 2D Transition Oxide Nanosheets Formation inside the Liquid Sandwiched Between Graphene Layers	Azadeh Amiri
P05.2P	8/3/2022	3:00 PM	5:00 PM	513	Laser-Induced Dynamics of Nano-Energetic Systems via In-situ TEM	Suman Kumari
P05.2P	8/3/2022	3:00 PM	5:00 PM	975	Real-time Analysis of Oxygen Vacancy of Indium Oxide via Environmental Transmission Electron Microscopy	Chenyue Qiu
P06.1P	8/4/2022	10:00 AM	12:00 PM	922	Estimation of elemental pollution in freshwater sediment of Lerma River Using EDS and FRX techniques (Assessment of Lerma River Bed Sediments Using EDS and FRX techniques)	Ana Coria-Tellez
P06.1P	8/4/2022	10:00 AM	12:00 PM	980	Impact of the Nanoscale Gap Morphology on Plasmons in Doped Indium Oxide Nanostructure Dimers	Yina Wu
P06.1P	8/4/2022	10:00 AM	12:00 PM	981	In Situ Engineering and Characterization of Photonic Modes in Dielectric Nanocubes	Yifan Wang
P06.1P	8/4/2022	10:00 AM	12:00 PM	983	Optical Properties of Zinc Ferrite Nanoparticles Embedded in Zinc Oxide Thin Films Investigated by STEM, EELS and CL	Cana Elgvin
P06.1P	8/4/2022	10:00 AM	12:00 PM	984	Pico-scale Distortions in Encapsulated Monolayer α -RuCl ₃ Characterized with 3D Electron Diffraction	Yin Min Goh
P06.1P	8/4/2022	10:00 AM	12:00 PM	985	Revealing Photonic Properties with High Spatial Resolution: An EELS Study on Ceria Nanocubes	Yifan Wang
P07.1P	8/2/2022	3:00 PM	5:00 PM	986	Computer Vision Approaches for Segmentation of Nanoscale Precipitates in Nickel-Based Superalloy IN718	Nishan Senanayake
P07.1P	8/2/2022	3:00 PM	5:00 PM	987	Investigation of stress corrosion cracking in CMSX-4 turbine blade alloys using Deep Learning assisted X-ray microscopy	Hrishikesh Bale
P07.2P	8/3/2022	3:00 PM	5:00 PM	989	Radiation-corrosion characterization of a 309L stainless-carbon steel weld produced by laser directed energy deposition	Scott Bozeman
P07.2P	8/3/2022	3:00 PM	5:00 PM	990	Towards Optimized Characterization of Dislocation Loops in Irradiated FCC Alloys Using On-Zone STEM Techniques	Pengyuan Xiu
P07.2P	8/3/2022	3:00 PM	5:00 PM	991	Transmission EBSD of Aluminide Coatings on Stainless Steel in a scanning electron microscope	Joshua Silverstein
P08.1P	8/1/2022	3:00 PM	5:00 PM	992	AXON Dose: A Machine Vision Solution for Accurate, Quantifiable Dose Management in the Transmission Electron Microscope	Franklin Walden
P08.1P	8/1/2022	3:00 PM	5:00 PM	993	Development of an Organic Controlled Environment Vitrification System To Expand Cryo-Protection of Beam Sensitive Materials	Wyeth Gibson
P08.1P	8/1/2022	3:00 PM	5:00 PM	994	Electron Microscopy Characterization of Gold Nanoparticles Supported on an Ordered TiO ₂ Nanowires Array.	Ernesto Neri-Cruz
P08.1P	8/1/2022	3:00 PM	5:00 PM	995	Exploring Electron Energy-Loss Spectroscopy for Characterization of Structured Fluids	Brittany Ford
P08.1P	8/1/2022	3:00 PM	5:00 PM		iDPC, the Ultimate STEM Imaging Performance	Eric Van Cappellen

Session	Date	Start Time	End Time	Proceedings Number	Presentation Title	Presenting Author
P08.1P	8/1/2022	3:00 PM	5:00 PM	996	Interpretability of Low-Dose HRTEM Images of Supported Metal Nanoparticles	William Lomholdt
P08.1P	8/1/2022	3:00 PM	5:00 PM	997	Spatial Differentiation of Aluminium Siting by the Single-Atom Adsorption Sites in Zeolite by Electron Microscopy	Ping-Luen Ho
P08.1P	8/1/2022	3:00 PM	5:00 PM	998	STEM-EELS Exploration of Beam-Sensitive Perovskite Nanocrystals	Brittany Ford
P08.2P	8/2/2022	3:00 PM	5:00 PM	999	Atomic Structure of Hierarchical Few-Unit-Cell MFI Zeolites	Supriya Ghosh
P08.2P	8/2/2022	3:00 PM	5:00 PM	1000	Atomic-scale Fabrication of 1D-2D Nano Hetero-structures within 2D Materials through Automated Tracking and Electron Beam Control	Matthew Boebinger
P08.2P	8/2/2022	3:00 PM	5:00 PM	1001	Characterising and Minimising Damage Effects in Air- and Beam-sensitive Solid-state Li-ion Battery Materials	Ruomu Zhang
P08.2P	8/2/2022	3:00 PM	5:00 PM	1002	Digital Image Processing in C++ in SEM Images	Luis Ramirez Peña
P08.2P	8/2/2022	3:00 PM	5:00 PM	1003	Electron Backscatter Diffraction Analysis of Beam Sensitive Samples using Direct Detection Technology	Matthew Nowell
P08.2P	8/2/2022	3:00 PM	5:00 PM	1004	Formation of defects in MoS ₂ during data acquisition of High-Resolution Transmission Electron Microscopy	Cuauhtémoc Núñez Valencia
P08.2P	8/2/2022	3:00 PM	5:00 PM	1005	Investigating sweet spot imaging of perovskite catalysts bearing exsolved active nanoparticles	Maadhav Kothari
P08.2P	8/2/2022	3:00 PM	5:00 PM	1006	Optimized Ultra-Fast Low Dose Electron Detection	Maximilian Schmid
P08.2P	8/2/2022	3:00 PM	5:00 PM	1007	Ways to suppress electro beam damage using high-speed electron beam control by electrostatic shutter in sample observation and analysis	Hiroki Hashiguchi
P09.1P	8/2/2022	3:00 PM	5:00 PM	1010	Coupling Electronic Holography and Finite-Element Method Simulations to Measure Electric Fields in Nanocapacitors.	Kilian Gruel
P09.1P	8/2/2022	3:00 PM	5:00 PM	1011	DeepSTEM: Deep-Learning-Based Object Function Reconstruction for In Situ STEM	Yeongdong Lee
P09.1P	2-Aug-22	3:00 PM	5:00 PM		Lorentz Transmission Electron Microscopy of Ni-Mn-Ga-Fe Magnetic Shape Memory Alloy: Magnetic Domain Structure Across the Austenite–Martensite Interface	Marek Vronka
P09.1P	8/2/2022	3:00 PM	5:00 PM	1012	Transformation during In Situ Heating of Bismuth Antimony Telluride Nanoplates	Xiner Lu
P09.2P	8/3/2022	3:00 PM	5:00 PM	1013	Enhanced Preparation Technique of Plan-view Specimens for in situ TEM Heating Experiments based on the Synergy of Wedge-polishing and FIB	Alexey Minenkov
P09.2P	8/3/2022	3:00 PM	5:00 PM	1014	Orientation-Specific CDW Phase Transition Temperatures in 1T-TaS ₂	Paige Engen
P09.2P	8/3/2022	3:00 PM	5:00 PM	1015	Reversible Intercalation of Mg ²⁺ in V ₂ O ₅ at Elevated Temperatures Leads to Enhanced Electrochemical Performances	Yingjie Yang
P09.2P	8/3/2022	3:00 PM	5:00 PM	1016	Transition of deformation mechanism in single crystalline metallic nanowires	Guangming Cheng
P09.2P	8/3/2022	3:00 PM	5:00 PM	1017	In-situ TEM imaging of Novel Edge Reconstruction in Bilayer Phosphorene	Sol Lee
P10.1P	8/1/2022	3:00 PM	5:00 PM	1018	Atomic Scale Visualization of Cation Point Defects in Gadolinium Doped Ceria	Mai Tan
P10.1P	8/1/2022	3:00 PM	5:00 PM	1019	Atomic structure and chemistry of LaMnO ₃ Heterointerfaces	Yi-Chieh Yang
P10.1P	8/1/2022	3:00 PM	5:00 PM	1020	Characterisation of Planar Defects in Ternary Layered Chalcogenides for Electronic Devices	Tigran Simonian
P10.1P	8/1/2022	3:00 PM	5:00 PM	1021	Characterization of Modulated Nanostructure in Au-Pt Alloy using Aberration Corrected STEM	Ronit Sawant

Session	Date	Start Time	End Time	Proceedings Number	Presentation Title	Presenting Author
P10.1P	8/1/2022	3:00 PM	5:00 PM	1022	Characterization of Nanoscale Twin Boundary Structure in Metastable β Titanium Alloys Using Aberration-corrected Scanning Transmission Electron Microscopy	Dian Li
P10.1P	8/1/2022	3:00 PM	5:00 PM	1023	Charge distribution control with atomic resolution via strain engineering in oxide heterostructures	Yu-Mi Wu
P10.1P	8/1/2022	3:00 PM	5:00 PM	1024	Electron microscopy investigation of cation exchange reaction to synthesize lateral hybrid nanostructures	Naveen Goyal
P10.1P	8/1/2022	3:00 PM	5:00 PM	1025	Exploring the Atomic Scale Structure and Properties of Grain Boundary in SrTiO ₃ by Electron Beam Imaging and Spectroscopy	Xiaowang Wang
P10.1P	8/1/2022	3:00 PM	5:00 PM	1026	Identification and manipulation of NV centers in nanodiamond	Bethany Hudak
P10.1P	8/1/2022	3:00 PM	5:00 PM	1027	Inside Look into Catalytic Condenser for Programmable Solid Acids using STEM	Silu Guo
P10.1P	8/1/2022	3:00 PM	5:00 PM	1028	Investigation of Nanoscale Shuffle Transformation in Titanium Alloys Using Aberration-Corrected Scanning Transmission Electron Microscopy	Yufeng Zheng
P10.1P	8/1/2022	3:00 PM	5:00 PM	1029	Measuring Near-Room-Temperature Valence Transition in Strained Perovskite Oxide using STEM-EELS	Supriya Ghosh
P10.1P	8/1/2022	3:00 PM	5:00 PM	1030	Multiplet Structure for the Perovskite Vanadium-doped BCZT using EELS	Guillermo Herrera-Perez
P10.1P	8/1/2022	3:00 PM	5:00 PM	1031	Optoelectronic Properties of Hexagonal Wurtzite Yb-doped ZnO using EELS	Guillermo Herrera-Perez
P10.1P	8/1/2022	3:00 PM	5:00 PM	1032	Potassium-Mediated Anisotropic Etching of Transition Metal Dichalcogenides Driven by Self-Running Oxide Droplets	Aram Yoon
P10.1P	8/1/2022	3:00 PM	5:00 PM	1033	Short-Range-Order in (ZnSnN ₂) _{1-x} (ZnO) _{2x} as Examined by EELS Fine Structure	Allison Mis
P10.1P	8/1/2022	3:00 PM	5:00 PM	1034	Spatial Decorrelation of Ceria Surface Reduction and Platinum Surface Loading Site	Peter Tieu
P10.1P	8/1/2022	3:00 PM	5:00 PM	1035	Structural and chemical characterization of Ge/GeSn core/shell nanowires	Milenka Andelic
P10.1P	8/1/2022	3:00 PM	5:00 PM	1037	Surface Morphology of Nanostructured TiO ₂ @Graphene Composites Obtained by Lyophilization	Snejana Bakardjieva
P10.1P	8/1/2022	3:00 PM	5:00 PM	1038	TEM Analysis and Mechanical Properties of Ternary Mn+1AX _n and Binary MXene for Applications in Nanocoating Technology	Snejana Bakardjieva
P10.1P	8/1/2022	3:00 PM	5:00 PM	1040	Uranium reduction by magnetite – mechanism of UO ₂ formation monitored by STEM, SAED and EELS	Thomas LaGrange
P10.1P	8/1/2022	3:00 PM	5:00 PM	1041	Use of Partial Scattering EDX Cross-Sections to Quantify Light Elements in the STEM	Alex Sheader
P10.2P	8/3/2022	3:00 PM	5:00 PM	1042	Characterization of Embedded Secondary Phase Carbides in Low-Alloyed Martensitic Steels Using a Combination of High-Resolution Techniques	Fredrik Gustavsson
P10.2P	8/3/2022	3:00 PM	5:00 PM	1043	Complex Core-Shell Nanoparticles Embedded in a Perovskite Complex Concentrated Oxide Film Synthesized in One Step	Huiming Guo
P10.2P	8/3/2022	3:00 PM	5:00 PM	1044	Deactivation study on zeolite materials using XPS and STEM characterization	Biva Talukdar
P10.2P	8/3/2022	3:00 PM	5:00 PM	1045	Development of a Stable Low Temperature Sample Holder for the Side-Entry Transmission Electron Microscope	Alexander Reifsnyder
P10.2P	8/3/2022	3:00 PM	5:00 PM	1046	Dispersion Analysis of Silicon Carbide Nanoparticles in Polyvinyl Alcohol Polymeric Matrix by Electronic Microscopy Techniques	C. Carreno-Gallardo

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P10.2P	8/3/2022	3:00 PM	5:00 PM	1047	Epitaxy of the metal and oxide phases in Pt-Pd 'Janus' particles in 800 °C air-aged diesel oxidation catalysts	Stephen Porter
P10.2P	8/3/2022	3:00 PM	5:00 PM	1048	Fast Solid-state Segmented Detectors: Improvements and Implications for DPC-STEM	Tiarnan Mullarkey
P10.2P	8/3/2022	3:00 PM	5:00 PM	1049	Imaging of Defect Rich Heterogeneous Interfaces using Compressive Sensing STEM	Daniel Nicholls
P10.2P	8/3/2022	3:00 PM	5:00 PM	1050	Insights into Thermal Degradation of Hot Melt Pressure-Sensitive Adhesive (PSA) with Atomic Force Microscopy - Infrared Spectroscopy (AFM-IR) Analysis	Hu Duan
P10.2P	8/3/2022	3:00 PM	5:00 PM	1051	Measuring Local Polarization by Differential Phase Contrast	Sebastian Calderon
P10.2P	8/3/2022	3:00 PM	5:00 PM	1052	Multiphysics Simulation for TEM Objective Lens Evaluation & Design	Lweys Jones
P10.2P	8/3/2022	3:00 PM	5:00 PM	1053	Objective Point Symmetry Classifications/Quantifications of an Electron Diffraction Spot Pattern with Pseudo-Hexagonal Lattice Metric	Peter Moeck
P10.2P	8/3/2022	3:00 PM	5:00 PM	1054	Parallel acquisition of real and reciprocal space data in transmission SEM	Peter Denninger
P10.2P	8/3/2022	3:00 PM	5:00 PM	1055	Qualitative Phase Contrast Imaging using Interferometric 4DSTEM	Andrew Ducharme
P10.2P	8/3/2022	3:00 PM	5:00 PM	1056	Quantification of Metal Atom Ordering in Engineered W1-xMoxS2 Monolayers	Danielle Reifsnyder Hickey
P10.2P	8/3/2022	3:00 PM	5:00 PM	1057	Separation of EBIC Modes with Two-Channel STEM EBIC	William Hubbard
P10.2P	8/3/2022	3:00 PM	5:00 PM	1058	Statistical Determination of Atomic-Scale Characteristics of Gold Nanocrystals Based on Correlative Multiscale Transmission Electron Microscopy	Stefan Neumann
P10.2P	8/3/2022	3:00 PM	5:00 PM	1059	Structural Analysis for Highly Aligned Graphene Fold on Cu(111) Substrate	Myeonggi Choe
P10.2P	8/3/2022	3:00 PM	5:00 PM	1060	Turn-Key Compressed Sensing System For Electron Microscopy	Edward Principe
P10.3P	8/4/2022	10:00 AM	12:00 PM	1061	Characterization of Electrospun ZnCr2O4 Spinel Nanofibers	Menuka Adhikari
P10.3P	8/4/2022	10:00 AM	12:00 PM	1063	Observation of Electrospun Yttrium Cobalt Oxide YCoO3 Nanofibers Calcined at Different Temperatures	Menuka Adhikari
P11.1P	8/3/2022	3:00 PM	5:00 PM	1065	Correlative Analysis of P-bearing Assemblages in the QUE 97008 and Orgueil Chondrites.	Maizey Benner
P12.1P	8/1/2022	3:00 PM	5:00 PM	1066	Elemental Quantification and Experimental Measurement of Mean Free Path Using EELS and CBED at 30 keV	Nicolas Dumaresq
P99.1P	8/4/2022	10:00 AM	12:00 PM	1067	Al7075 Composites Reinforced with Al2O3 and CNT Particles	Raul Perez-Bustamante
P99.1P	8/4/2022	10:00 AM	12:00 PM	1068	Aluminium Matrix Composite (AA6061/CaSiO3) Powders Obtained by Ball Milling	Ofelia Hernández Negrete
P99.1P	8/4/2022	10:00 AM	12:00 PM	1069	Aluminium Matrix Composites (AA6061/CaSiO3) Fabricated by Powder Metallurgy	Ofelia Hernández Negrete
P99.1P	8/4/2022	10:00 AM	12:00 PM	1070	An Expanded Graphite Used as Oil Adsorbent Prepared with an Alternative Green Route Based on the Classical Hummer Method	G. Tarango-Rivero
P99.1P	8/4/2022	10:00 AM	12:00 PM	1071	BiOCl Nanosheets Supported onto Borosilicate Glass Prepared Using the AACVD Method	P. Pizá-Ruíz
P99.1P	8/4/2022	10:00 AM	12:00 PM	1072	Characterisation of Lead sulphide (PbS) films by Optical and Scanning Electron Microscopies	Carlos A Márquez Ibarra
P99.1P	8/4/2022	10:00 AM	12:00 PM	1073	Characterization of a New Rare-Earth-Free Cu-based Bulk Metallic Glass	Tamara Koledin
P99.1P	8/4/2022	10:00 AM	12:00 PM	1075	Color Etching of a MIG Welded Steel Joint	Raul Perez-Bustamante

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P99.1P	8/4/2022	10:00 AM	12:00 PM	1076	Development of an aluminum hybrid metal matrix composite processed through mechanical milling (MM), with high response to yield strength	C. Carreno-Gallardo
P99.1P	8/4/2022	10:00 AM	12:00 PM	1077	Dispersion of CNTs into an Aerospace-Grade Aluminum Alloy	Raul Perez-Bustamante
P99.1P	8/4/2022	10:00 AM	12:00 PM	1078	Dynamic precipitation in Al-4Cu and Al-4Cu-4Mg cold-rolled alloys	J.L. García-Hernández
P99.1P	8/4/2022	10:00 AM	12:00 PM	1079	Effect of deuteration on morphology of 2D perovskite (CH ₃ NH ₃) ₂ Pb(SCN) ₂ I ₂	Bhoj Gautam
P99.1P	8/4/2022	10:00 AM	12:00 PM	1080	Effect of Etching Method on the Morphology and Stability of Ti ₂ CTx MXene	Daniel Autrey
P99.1P	8/4/2022	10:00 AM	12:00 PM	1081	Effect of Sintering Temperature in Tungsten Carbides Bonded with High and Medium Entropy Alloys.	M.A. Ruiz-Esparza-Rodriguez
P99.1P	8/4/2022	10:00 AM	12:00 PM	1082	Effect of the Cooling Rate on the Microstructure Evolution of Haynes® 282® Ni-based Superalloy subjected to γ' Super-Solvus Heat Treatment	Anastasia Alexandratou
P99.1P	8/4/2022	10:00 AM	12:00 PM	1083	Effect of Tungsten Carbide Reinforcing Particle on Wear Behavior in Aluminum Matrix Composites Synthesized through Powder Metallurgy	G. Rodríguez-Cabriales
P99.1P	8/4/2022	10:00 AM	12:00 PM	1085	Expanded Graphite Prepared with Microwave Radiation: Time Effect on its Oil Adsorption Capacity	G. Tarango-Rivero
P99.1P	8/4/2022	10:00 AM	12:00 PM	1086	Failure Analysis of Conformal Cooling Inserts Fabricated by Additive Manufacturing	Hiram Flores
P99.1P	8/4/2022	10:00 AM	12:00 PM	1087	GaAs Substrate Reuse Using Molecular Beam Epitaxy of NaCl Layers	Jae Jin Kim
P99.1P	8/4/2022	10:00 AM	12:00 PM	1088	Gamma alumina synthesis following a mechanochemical process obtained from aluminum residues	I. Estrada-Guel
P99.1P	8/4/2022	10:00 AM	12:00 PM	1089	Gas shielding and stand-off-distance effects in Ti-6Al-4V protective coatings deposited by electric arc thermal spraying for aluminum die casting molds	Mauricio Nango Blanco
P99.1P	8/4/2022	10:00 AM	12:00 PM	1090	Growth and characterization of Boron Nitride/Diamond heterostructures	Saurabh Vishwakarma
P99.1P	8/4/2022	10:00 AM	12:00 PM	1091	Hardness behavior of CNT/Al7075 RRA heat treated composites	Raul Perez-Bustamante
P99.1P	8/4/2022	10:00 AM	12:00 PM	1092	High Entropy Alloy AlCoFeNiMoTi Particles as Reinforcement in an Al 2024 Matrix Synthesized by Powder Metallurgy	Miguel Avila-Rubio
P99.1P	8/4/2022	10:00 AM	12:00 PM	1093	High purity graphene prepared via a cheap method of synthesis from a CO ₂ atmosphere.	C. Carreno-Gallardo
P99.1P	8/4/2022	10:00 AM	12:00 PM	1094	High-Temperature Growth of Mn ₅ Ge ₃ C _x Thin Films on Ge (001) Substrates: Reactive Deposition Epitaxy vs. Solid Deposition Epitaxy	Adriana Alvidrez-Lechuga
P99.1P	8/4/2022	10:00 AM	12:00 PM	1095	Influence of milling time on microstructure of AlCoCrMnMo high-entropy alloy produced by mechanical alloying	Jesus Baldenebro-Lopez
P99.1P	8/4/2022	10:00 AM	12:00 PM	1096	Influence of Rare Earths Additions on the Microstructure and Hardness of Heat-treated Nanostructured Superalloy Inconel 718.	Hansel Medrano
P99.1P	8/4/2022	10:00 AM	12:00 PM	1097	Intermetallic Phases at a Resistance Spot Welded Fe-Al Interface	Hendrik Colijn
P99.1P	8/4/2022	10:00 AM	12:00 PM	1099	Microstructural Evolution and Strengthening Mechanisms in a 2xxx Series Modified Al Alloy.	K. García-Aguirre
P99.1P	8/4/2022	10:00 AM	12:00 PM	1102	STEM Analysis of Vacancies in Magnetite Nanoparticles	Paul Sharp
P99.1P	8/4/2022	10:00 AM	12:00 PM	1103	Stroboscopic Imaging Using RF Strip-Line Technology	Spencer Reisbick
P99.1P	8/4/2022	10:00 AM	12:00 PM	1104	Study of Porosity in Heat Treated Aluminum 319 Alloys	Christian Reyes
P99.1P	8/4/2022	10:00 AM	12:00 PM	1105	Surface vs. bulk phonons in off-axis EELS	Hongbin Yang
P99.1P	8/4/2022	10:00 AM	12:00 PM	1106	Synthesis by AACVD, microstructural characterization and mechanical properties of a Cr ₂ O ₃ /Fe ₃ O ₄ nanocomposite	C. Carreno-Gallardo

Session	Date	Start Time	End Time	Proceedings Number	Presentation Title	Presenting Author
P99.1P	8/4/2022	10:00 AM	12:00 PM	1107	Synthesis of a Cr-Mn-Fe-Co-Ni-CNTs High Entropy Alloy	Raul Perez-Bustamante
P99.1P	8/4/2022	10:00 AM	12:00 PM	1108	TEM Analysis of MBE Grown Model Li-Ion Cathodes	Bilash KC
P99.1P	8/4/2022	10:00 AM	12:00 PM	1109	TEM Characterization of Complex Nanoprecipitates in Single-Phase V-Nb bearing Automotive Steels	Angelos Kaldellis
P99.1P	8/4/2022	10:00 AM	12:00 PM	1110	TEM Characterization of Retained Austenite Stabilization on TRIP Steel	Nikolaos - Ioannis Makris
P99.1P	8/4/2022	10:00 AM	12:00 PM	1112	The Occurrence of Dolomite in Carbonate Organofacies and Its Relationship to Diagenesis and Catagenesis as Revealed by Mineral Maps Developed Using Energy Dispersive Spectroscopy and Back Scatter Electron.	David Jacobi