

# M&M 2022 Full Schedule - On-Demand Posters

\*updated as of 7/30/2022

Session	Session Name	Proceedings Number	Presentation Title	Presenting Author
A01	Advances In Focused Ion Beam Instrumentation, Applications And Techniques In Materials And Life Sciences	748	A New Tool for Automation of Focused Ion Beam Bitmap Milling of Two-and Three-Dimensional Micro and Nanostructures.	Jairo Narro
A01	Advances In Focused Ion Beam Instrumentation, Applications And Techniques In Materials And Life Sciences	749	Site-Specific Lift-Out on Complicated Nanoscale Structures	Yimeng Chen
A02	Beyond Visualization With In Situ And Operando TEM	756	In-situ Magneto-Transport Measurements in a Transmission Electron Microscope	Bernd Rellinghaus
A03	Advanced 3D Imaging And Analysis Methods For New Opportunities In Materials Science	781	Hollow-cone Dark Field (HCDF) Imaging for Nano-grained Mg: Experimental and Simulated Contrast	Yushun Liu
A03	Advanced 3D Imaging And Analysis Methods For New Opportunities In Materials Science	780	Deterioration Mechanisms during Exposure to Humidity-Controlled Air of Argyrodite Solid Electrolytes for All-solid-state Batteries	Hirofumi Tsukasaki
A03	Advanced 3D Imaging And Analysis Methods For New Opportunities In Materials Science	779	3D Electron Diffraction Study of Delithiation Induced Lattice Distortion in Li-rich Layered Oxide Cathode	Lei Yu
A05	Quantitative And Qualitative Mapping Of Materials	824	Determination of thin film thickness and composition using energy dispersive EPMA	Ralf Terborg
A05	Quantitative And Qualitative Mapping Of Materials	825	Electroless Ni-P Coatings Containing Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> /TiC Reinforcement	A. Santos-Beltrán
A05	Quantitative And Qualitative Mapping Of Materials	826	Microstructural characterization of the Ti-30Nb alloy synthesized by powder metallurgy	Elpidio Jiménez
A05	Quantitative And Qualitative Mapping Of Materials	827	Microstructure and Oxygen Distribution of Mechanically Milled Al Particles Sintered by the Induction Heating, Spark Plasma and Conventional Methods	José Mendoza
A05	Quantitative And Qualitative Mapping Of Materials	828	Relation Between Composition, Structure and Properties of Different Dental Alloys	Julia Mirza-Rosca
A05	Quantitative And Qualitative Mapping Of Materials		Volcanic Ash Infiltration in Lanthanum Gadolinium Zirconate Pellets	Ivan Bedoya Trujillo
A07	Science Of Metrology With Electrons	839	Characterization of Mn Containing Precipitates Observed in 7XXX Series Al Alloys Using Aberration Corrected STEM	Robert E A Williams
A07	Science Of Metrology With Electrons	840	Zinc Addition on AlCoFeNi Multicomponent System Produced by Mechanical Alloying, Microstructural and Morphological Effect	Miguel Avila-Rubio
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	854	Analysis of surface on machinery grade steel Boriding	Yhoset Ricardo Nuñez Murguía
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	855	Chemical bonding state analysis with high energy-resolution carbon K-emission spectrum of soft materials obtained by soft X-ray emission spectrometer	Masaru Takakura
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	856	Effect of entropy on microstructure of Al <sub>x</sub> (CoCrMnMo) <sub>100-x</sub> (x=15, 30, 45, 60) high-entropy and medium-entropy alloys produced by mechanical alloying	Guadalupe Avila-Rubio
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	857	Effects of Processing Conditions on Powder Particle Size and Morphology in the Mechanical Milled H13 Alloy	José Antonio Betancourt-Cantera
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	858	Evaluation of microstructural changes in parenchymal tissues of potato during its convective drying by confocal scanning laser microscopy (CLSM)	Stephany Montserrat Gutiérrez Martínez
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	859	High-Resolution Atomic Force Microscopy Study of Protein Surface Conformations	Evgeny Dubrovin
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	860	Improvement in Optical Characterization on Ultra-Low Carbon Steels	José Sánchez-Gonzalez
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	861	Microstructure and mechanical properties of borided ASTM A709 steel by powder-pack boriding	Ángel Morales-Robles

A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	862	Stability Range of Ti-Zr Alloy for Dental Implants	Julia Mirza-Rosca
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	863	Surface characterization on agriculture steel boring	Gerardo Pérez Mendoza
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	864	TiN coating and Fe <sub>2</sub> B layer obtained by PVD and powder-pack boring treatments Formed on ASTM A1011 steel	Ángel Morales-Robles
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	865	Visualization and comparison of cellulose microfibrils images from cellulose derivatives aerogels in CLSM and PALM using conventional dyes	Susana Dianey Gallegos-Cerda
A10	Surface And Subsurface Microscopy And Microanalysis Of Physical And Biological Specimens	866	Wear response of A356-doped Ce for potential application in vehicle components	C.D. Gómez-Esparza
B02	3D Structures: From Macromolecular Assemblies To Whole Cells (3DEM FIG)	884	3D structure of the tail complex of E. coli bacteriophage DT57C	Olga Sokolova
B02	3D Structures: From Macromolecular Assemblies To Whole Cells (3DEM FIG)	885	Complex of GroEL- $\alpha$ -synuclein Resolved by Cryo-EM	Olga Sokolova
B02	3D Structures: From Macromolecular Assemblies To Whole Cells (3DEM FIG)	886	Identification of the NTD in hFACT complex by electron microscopy	Olesya Volokh
B02	3D Structures: From Macromolecular Assemblies To Whole Cells (3DEM FIG)	887	Structure Of The Head-tail Interface Part Of Myoviridae Bacteriophage TaPaz Revealed by Cryo-EM	Olga Sokolova
B03	Technical Advances In Cryo-EM	898	CryoDiscovery™: Federated Learning as a key tool for Cryogenic Electron Microscopy Image Analysis	Narasimha Kumar
B03	Technical Advances In Cryo-EM	900	CRYO-EM INFORMATION MANAGEMENT SYSTEM AND SAMPLE EVALUATION AT THE STANFORD-SLAC CRYO-EM CENTER	Htet Khant
B05	Challenges And Advances In Electron Microscopy Research And Diagnosis Of Diseases In Humans, Plants And Animals	907	Adherence of Candida albicans on cellulose and polyethylene terephthalate after 60 days of incubation observed by Scanning electron microscopy	Carlos Arzate-Quintana
B05	Challenges And Advances In Electron Microscopy Research And Diagnosis Of Diseases In Humans, Plants And Animals	908	FACT unfolds nucleosome into a nearly linear protein-DNA structure: electron microscopy analysis	Anastasiia Sivkina
B05	Challenges And Advances In Electron Microscopy Research And Diagnosis Of Diseases In Humans, Plants And Animals	909	Morphology of Coniophora eremophila exposed to silver and zinc oxide nanoparticles in Dextrose Sabouraud agar analyzed by scanning electron microscopy	Carlos Arzate-Quintana
B05	Challenges And Advances In Electron Microscopy Research And Diagnosis Of Diseases In Humans, Plants And Animals	910	SEM pollen morphology of columnar cacti Polaskia from Tehuacán-Cuicatlán Valley, Mexico	Laura E. Gómez-Lizárraga
B06	Imaging, Microscopy, and Micro/Nano-Analysis of Pharmaceutical, Biopharmaceutical, and Medical Health Products – Research, Development, Analysis, Regulation, and Commercialization	912	Microscopic Analysis of Particulates in Pharmaceutical Products: A Case Study	Youlong Ma
C04	Artificial Intelligence, Instrument Automation, And High-Dimensional Data Analytics For Microscopy And Microanalysis	956	"Push-Button Microscopy": Automated Instrument Alignment and Reciprocal-space Navigation using PyJEM	Surui Huang
C04	Artificial intelligence, instrument automation, and high-dimensional data analytics for microscopy and microanalysis	951	Finding features from microscopes to simulations via ensemble learning and atomic manipulation	Ayana Ghosh
C04	Artificial intelligence, instrument automation, and high-dimensional data analytics for microscopy and microanalysis	938	Quantifying Differences Between Machine Learning Classification Models Applied to Cancer Microscopy Data	William Lamberti
P01	Emerging Methods For Characterizing Hydrogen Effects In Metals And Alloys	961	Hydrogen-Assisted Cracking Behavior of a Fine-Grained Equiatomic CoCrFeNi High-Entropy Alloy	Taein Kong
P04	Mechanisms Of High Strain Rate Plastic Deformation: Plasticity And Microstructural Evolutions Of Adiabatic Shear Bands	965	Experimental Development of Fracture Analysis in AISI D2 Steel Subjected to Accelerated Aging Conditions	Misael Baez
P05	In Situ TEM Characterization Of Dynamic Processes During Materials Synthesis And Processing	976	Atomic imaging of superelasticity of 2-dimensional freestanding perovskite ferroelectric films	Huaxun Huyan
P05	In Situ TEM Characterization Of Dynamic Processes During Materials Synthesis And Processing	979	Local Structure and Crystallization Process in Mechanochemically Prepared Na <sub>3</sub> PS <sub>4</sub>	Hiroshi Nakajima
P06	Nanoscale optics with electrons and photons	982	Non-Classical Crystal Morphology and Secondary Phase Directed Growth of Tetragonal SnO Microcrystals	Koushik J
P08	Electron Microscopy Of Beam Sensitive Samples: The Trials And Tribulations Of Electron-Beam Sample Interactions	1008	Low-dose HRTEM Study of Stacking Fault Structures in Cubic Ice	Yulin Lin

P08	Electron Microscopy Of Beam Sensitive Samples: The Trials And Tribulations Of Electron-Beam Sample Interactions	1009	SEM image analysis on the formation of Porous Anodic Alumina Templates.	David Levi Quiroz Aguilera
P10	Advanced Imaging And Spectroscopy For Nanoscale Materials	1036	Study of Graphene and Thin Foils by a Time-of-Flight Spectrometer for Low Landing Energies	Ivo Konvalina
P10	Advanced Imaging And Spectroscopy For Nanoscale Materials	1039	Topotactic Phase Transformation of Single Crystalline Tetragonal SnO to Orthorhombic SnO <sub>2</sub>	Koushik J
P10	Advanced Imaging And Spectroscopy For Nanoscale Materials	1062	Morphological Characterization and Chemical Identification of TiO <sub>2</sub> Nanoparticles Doped with Ultrafine Metal Particles for Enhanced Photocatalytical Activity	Vasile-Dan Hodoroaba
P10	Advanced Imaging And Spectroscopy For Nanoscale Materials	1064	Synthesis and Characterization of Exfoliated Layered K <sub>2</sub> La <sub>2</sub> Ti <sub>3</sub> O <sub>10</sub> Perovskite Oxide	Zhiping Luo
P99	On Demand Physical Sciences Posters	1084	Evaluation of Lattice-Spacing of SiGe/Si by NBD using two-condenser-lens TEM	Junji Yamanaka
P99	On Demand Physical Sciences Posters	1101	SEM Study of a Ti-Ta-Sn Ternary Alloy by Powder Metallurgy	Abraham Mejia
P99	On Demand Posters		Object detection in SEM images using CNN: Geological application on size distribution of pyrites in Mudrocks	Priyanka Periwal
X90	Outreach: Microscopy In The Classroom	1113	Core shell structures in comparative study of the composition $x = 0.01$ (BaTi <sub>1-5x</sub> Nb <sub>4x</sub> O <sub>3</sub> ) prepared by the barium titanate route and the solid-state route	Ángel Morales-Robles