

2016 CCMR Symposium Poster List

1.	<p>Cultural heritage under the electron microscope at Cornell <i>Barnaby Levin, Kayla Nguyen, Megan Holtz, Malcolm Thomas, Don Werder, John Grazul, David Muller*</i></p>
2.	<p>Speckle statistics and decoherence in Fluctuation Electron Microscopy <i>Aram Rezikyan¹, Z. Jibben³, B. Rock², G. Zhao⁴ and M. M. J. Treacy²</i> ¹ Corning Inc., Corning, NY 14831 ² Dept. of Physics, Arizona State University, Tempe, AZ 85287 ³ Ira A. Fulton School of Engineering, Arizona State University, Tempe, AZ 85287 ⁴ Dept. of Structural Biology, University of Pittsburgh School of Medicine, Pittsburgh, PA 15260</p>
3.	<p>Propagation of Disorder in Epitaxially Connected Quantum Dot Solids from Atomic to Micron Scale <i>Benjamin H. Savitzky, Robert Hovden, Kevin Whitham, Jun Yang, Frank Wise, Tobias Hanrath and Lena F. Kourkoutis*</i></p>
4.	<p>Imaging Fields and Domains in Lorentz Scanning Transmission Electron Microscopy with a High Dynamic Range, High-Speed Electron Microscopy Pixel Array Detector (EMPAD) <i>Kayla Nguyen, Prafull Purohit, Mark W. Tate, Emrah Turgut, Ajay K. Yadav, Celesta Chang, Michael Cao, Robert Hovden, Lena F. Kourkoutis, Gregory D. Fuchs, Ramamoorthy Ramesh, Sol M. Gruner, David A. Muller*</i></p>
5.	<p>Making Quantum Measurements: New Incoherent Imaging Modes with Pixel Array Detector <i>Celesta Chang, Michael C. Cao, Kayla X. Nguyen, Mark W. Tate, Prafull Purohit, Sol M. Gruner, David A. Muller*</i></p>
6.	<p>Chiral spin texture in B20 FeGe films <i>Emrah Turgut, Albert Park, Kayla Nguyen, Robert M. Hovden, Lena F. Kourkoutis, David A. Muller, Gregory D. Fuchs*</i></p>
7.	<p>Mapping Atomic Lattice Modulations in Charge Ordered Systems at Room and Cryogenic Temperatures <i>Ismail El Baggari, Robert Hovden, Ben Savitzky, Alemayehu S. Admasu, Jaewook Kim, Sang-Wook Cheong, and Lena F. Kourkoutis*</i></p>
8.	<p>Imaging Local Polarization and Domain Boundaries with Picometer-Precision Scanning Transmission Electron Microscopy <i>Megan E Holtz, Julia A Mundy, Charles M. Brooks, Jarrett A. Moyer, Hena Das, Alejandro F. Rebola, Celesta S. Chang, Robert Hovden, Elliot Padgett, Craig J. Fennie, Peter Schiffer, Dennis Meier, Darrell G. Schlom, David A. Muller*</i></p>
9.	<p>Impurities Diffusion via Extended Defects in Oxide Thin Films Probed by Aberration-Corrected STEM-EELS <i>David J. Baek, Di Lu, Yasuyuki Hikita, Harold Y. Hwang, and Lena F. Kourkoutis*</i></p>
10.	<p>Nanoscale Cryo-STEM Characterization of Intact internal Solid-Liquid Interfaces Enabled by Cryo-FIB Lift-Out <i>Michael Zachman, Emily Asenath-Smith, Zhengyuan Tu, Seung-Ho Yu, Héctor D. Abruña*, Lynden A. Archer, and Lena F. Kourkoutis*</i></p>
11.	<p>Analyzing Size and Shape of Hybrid Nanomaterials with Cryo-TEM and Cryo-STEM <i>Katherine A. Spoth, Yao Sun, Kai Ma, Ulrich Wiesner, and Lena Kourkoutis*</i></p>
12.	<p>Quantitative 3D Structural Analysis of Fuel Cell Catalysts and Carbon Supports by Cryo-STEM Tomography <i>Elliot Padgett, Nina Andrejevic, Zhongyi Liu, Koji Moriyama, Ratandeep Kukreja, Swami Kumaraguru, Wenbin Gu, Yi Jiang, Veit Elser, David A. Muller*</i></p>
13.	<p>Understanding the Vesicular Architecture of Rhodobacter sphaeroides using Cryo-Focused Ion Beam Milling and Cryo-Electron Tomography <i>Jade M. Noble, J. Lubieniecki, J. Plitzko, H. Engelhardt, W. Baumeister, and L. F. Kourkoutis*</i></p>
14.	<p>An Open Platform for Tomographic Visualization of 3D Materials <i>Robert Hovden, Yi Jiang, Elliot Padgett, Shawn Waldon, Marcus D. Hanwell, David A. Muller*</i></p>
15.	<p>Reliability of Sparsity-Exploiting Reconstruction Algorithms for Imaging 3-D Nanoscale Structures <i>Yi Jiang, Nina Andrejevic, Elliot Padgett, David A. Muller*</i></p>
16.	<p>STM Reveals the Spontaneous Formation of Self-Assembled Monolayers on TiO₂ in Air and Solution: Implications for Metal Oxide Photoreactivity and CO₂ Photoreduction" <i>Erik S. Skibinski, William J. I. DeBenedetti, Anqi Song, Amnon G. Ortoll-Bloch, and Melissa A. Hines*</i></p>

*Principal Investigator

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17.	<p>In Situ Atomic Force Microscopy of Growing Calcite Reveals Interaction Mechanisms for Charged Particles <i>Coit Hendley, Dr. Lee Fielding, Professor Steven Armes, and Professor Lara Estroff*</i></p>
18.	<p>Radial mapping of elastic properties in bicomponent, Islands-in-the-sea micro fibers using Atomic Force Microscopy (AFM) <i>Marion Schelling, Professor Hinestroza*</i></p>
19.	<p>Nanoscale magnetic resonance imaging using magnetic resonance force microscopy <i>Corinne E. Isaac, Hoang Long Nguyen, Christine M. Gleave, Pamela, Nasr, Elizabeth Curley, Jonilyn L. Yoder, Eric W. Moore, Lei Chen, and Prof. John A. Marohn*</i></p>
20.	<p>Magnetic Properties of Mosaic Crystals of Hematite <i>Abby R. Goldman, Emily Asenath-Smith, Lara A. Estroff *</i></p>
21.	<p>Characterizing the Structure-Function Relationship of the Meniscal Enteses via Microstrain Mapping and Raman Spectroscopy <i>Alexander J Boys, Jennie AMR Kunitake, Gavisha R Waidyaratne, Itai Cohen, Lawrence J Bonassar, Lara A Estroff*</i></p>
22.	<p>Self-Assembled Monolayers as Nucleating Surfaces to Study Early Formation Pathways of Crystallographic Polymorphs <i>Zihao Zhang, Katherine P. Barteau, Professor Lara A. Estroff*, Professor Ulrich B. Wiesner*</i></p>
23.	<p>Synthesis, Electrospinning and Characterization of thermoresponsive Polymers <i>Eduarne Gonzalez, and Margaret Frey *</i></p>
24.	<p>Search and Rescue (SAR) Hoist Cable Alternatives - Challenges in Replacing Steel with Polymer Fibers <i>Professor Leigh Phoenix*, Sarah Choe, Timothy Lai, Matias Werner and Alex Deyhim (ADC)</i></p>
25.	<p>Polysaccharide based "Green" Composites <i>Namrata Patil and Anil Netravali*</i></p>
26.	<p>Carbon Nanofibers with Tailored Mesopores for Li-S and Zn-Br Flow Batteries <i>Brian P. Williams, Yong L. Joo*</i></p>
27.	<p>Gyroidal Silicon (Oxy)Nitride Monoliths: A Mesoscale Matrix for Bicontinuous Hybrids <i>Ethan Susca, Peter Beaucage, Margaret Hanson-Clarke, Ulrike Werner-Zwanziger, Ulrich Wiesner, and Lara Estroff*</i></p>
28.	<p>Directly Deposited Silicon/Graphene Nanofiber Anodes for High Performance Lithium-ion Batteries <i>Ghazal Shoorideh, Yong L. Joo*</i></p>
29.	<p>Polymer/Ceramic Nanofiber Separators for Li-ion Batteries <i>Soshana A. Smith, Yong L. Joo*</i></p>
30.	<p>Thin Film Li-Sulfur Batteries with Highly Loaded Sulfur via Air-Controlled Electropray <i>Jaehyuk Lee, Yong L. Joo*</i></p>
31.	<p>Controlling the Placement of Carbon Nanotubes and Graphene Nanoribbons in Polymer Nanofibers for Li-ion Battery Anode Application <i>Yevgen Zhmayev, Shubham Pinge, Ghazal Shoorideh, Yong L. Joo*</i></p>
32.	<p>Graphene Oxide involved Air-Controlled Electropray for Ultrauniform, Ultrafast, Instantly-Dry, and Binder-Free Electrode Fabrication <i>Ling Fei, Sang H. Yoo, Rachel Villamayor, Yong L. Joo*</i></p>
33.	<p>Self-Healing Properties of Protein Resin with Soy Protein Isolate-Loaded Poly(d,l-lactide-co-glycolide) Microcapsules <i>Joo Ran Kim, and Professor Anil N. Netravali*</i></p>
34.	<p>Photo/stress/time Sensitive Nanomaterials for Webbing Products <i>Mani Korah, Prabhleen Kaur, Hongshen Liu, Yong L. Joo*</i></p>
35.	<p>Cathode Processes in the Carbon Arc Discharge for Nanotube Synthesis <i>Yao-Wen Yeh, Yevgeny Raitsev*, and Nan Yao, Department of Electrical Engineering, Princeton University</i></p>
36.	<p>Probing Short Range A-site Cation Ordering and Local B-site Distortion via Aberration-Corrected STEM/EELS <i>Suk Hyun Sung, David J. Baek, Di Lu, Yasuyuki Hikita, Harold Y. Hwang, and Lena F. Kourkoutis*</i></p>

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