

Central States Microscopy and Microanalysis Society

Fall 2018 Meeting
“Bringing Material Science into Focus”

Tuesday October 30th, 2018
University of Missouri • 171 Bond Life Sciences Center • Columbia, Missouri

- 8:00 - 8:50 **REGISTRATION:** REFRESHMENTS
- 8:50 - 9:00 **WELCOME AND OPENING REMARKS:** DEANA GRANT, HOST & PRESIDENT OF CSMMS
- 9:00 - 9:20 XIAOQING HE, MU ELECTRON MICROSCOPY CORE, “APPLICATIONS OF TRANSMISSION ELECTRON MICROSCOPY TO MATERIALS SCIENCE”
- 9:20 - 9:40 VELAPHI THIPE, MU DEPARTMENT OF CHEMISTRY, “GREEN NANOIMMERSIONS: NANOAG AND NANOPD/PT FORMULATIONS AS A POTENTIAL FOR SUNSCREEN OINTMENT AND HYDROGEN STORAGE TOWARDS EFFICIENT ENERGY”
- 9:40 - 10:00 MAAKAVAB ARIVU, MISSOURI SCIENCE AND TECHNOLOGY, “MICROSTRUCTURAL ANALYSIS OF NANOSTRUCTURED KANTHAL-D, A FERAL ALLOY”
- 10:00 - 10:15 BOB PASSERI, HITACHI HIGH TECHNOLOGIES-AMERICA
- 10:15 - 10:30 **BREAK:** REFRESHMENTS GRACIOUSLY SPONSORED BY NCI & LEICA (THANKS DUSTIN MAXWELL!)
- 10:30 - 10:50 ALEC PICKETT, MU PHYSICS & ASTRONOMY, “SOLUTION PROCESSED ZNO AND PVDF-TRFE THIN FILMS IN FIELD EFFECT TRANSISTORS”
- 10:50 - 11:10 TARA SELLY, MU GEOLOGICAL SCIENCES, “MICRO-COMPUTED TOMOGRAPHIC ANALYSIS OF TERMINAL EDIACARAN TUBICULOUS TAXA PROVIDES INSIGHT INTO POSSIBLE EARLY EUMETAZOAN PHYLOGENY”
- 11:10 - 11:30 AHMED JASIM, MU CHEMICAL ENGINEERING, “COATING OF METALS OXIDES ON NANO-SUBSTRATES”
- 11:30 - 11:50 TAHER HAJILOUNEZHAD, MU MECHANICAL & AEROSPACE ENGINEERING, “IN-SITU PROCESS-STRUCTURE-PROPERTY EVALUATION OF CARBON NANOTUBE FORESTS”
- 11:50 – 12:00 Paul Carpenter, MAS Announcements
- 12:00 - 1:30 **LUNCH:** GRACIOUSLY SPONSORED BY THERMOFISHER SCIENTIFIC (THANKS DEAN KROGMAN/TERRY GLAAB!)
- 1:30 - 2:30 MSA TOUR SPEAKER: C. BARRY CARTER, “THE FUTURE OF EM AND WHY WE MUST REMEMBER THE PAST”
- 2:30 - 2:50 **BREAK:** GRACIOUSLY SPONSORED BY HITACHI (THANKS BOB PASSERI!)
- 2:50 - 3:10 RAUL FLOREZ, MISSOURI SCIENCE AND TECHNOLOGY, “Assessment of Oxygen Uptake in Ion Irradiated ZrC”
- 3:10 - 3:30 PAUL CARPENTER, WASHINGTON UNIVERSITY, “Quantitative Electron-probe Microanalysis and Compositional Mapping of a Vanadium-Steel Slag”
- 3:30 - 3:50 Yang Zhao, Missouri Science and Technology, Characterization of Polymeric Nanoparticles and Applications in Enhancing Foam Stability”
- 3:50 - 4:00 **CLOSING:** ANNOUNCEMENT OF STUDENT AWARD WINNER - CSMMS LEADERSHIP

Central States Microscopy and Microanalysis Society presents
October 30th, 2018
171 Bond Life Sciences Center, Columbia Missouri

Fall 2018 Meeting

“The Future of EM and Why We Must Remember the Past”

With Microscopy Society of America Guest Speaker

C. Barry Carter, Ph.D.

C. Barry CARTER is a Professor at the University of Connecticut in Storrs, CT. He holds a B.A., M.A. and Sc.D. from Cambridge University, an M.Sc. from Imperial College, London, and a D. Phil. From Oxford University. After 6 years in Oxford (3 as a postdoc.) he moved to Cornell where he spent 14 years leaving as a full Professor. He then spent 16 years as Professor and the 3M Endowed Multidisciplinary Chair in the Department of Chemical Engineering and Materials Science at the University of Minnesota and 5 years as Head of UConn's Department of Chemical, Materials and Biomolecular Engineering. He is a CINT Distinguished Affiliate Scientist at Sandia National Lab (1 of 4). He had earlier held visiting positions at LANL (as the Bernd T. Matthias Scholar), Chalmers (as the 2004 Jubilee Professor), NIMS in Tsukuba, Bristol University, Max Planck Institute in Stuttgart, the Institute for Physical Chemistry in Hannover and the Ernst Ruska Center in Jülich. He has been awarded a Guggenheim Fellowship and the Alexander von Humboldt Senior Award. Other awards include the Ceramic Education Council (ACerS) Outstanding Educator Award Oct. 2014, a JSPS Fellowship (May 2014), the MSA Distinguished Physical Scientist (August 2013) and the ACerS Roland B Snow Award (1989, 1993, 1995, 2000-2002). He is a Fellow of AAAS, MRS, MSA, ACerS and RMS and an elected Member of CASE (the Connecticut Academy of Science & Engineering). He served as the 1997 President of MSA, as the 2003-2010 General Secretary of the IFSM, as the (2011-2014) President of IFSM (he is the current Vice-President (2015-2018)). He is the co-author of two textbooks *Transmission Electron Microscopy: A Textbook for Materials Science*, with Dave Williams and *Ceramic Materials; Science and Engineering* with Grant Norton and the Editor-in-Chief of the *Journal of Materials Science (IF=2.371)*, a journal that was cited >36,000 times in 2014. *Transmission Electron Microscopy: Diffraction, Imaging, and Spectrometry*, Edited with Dave Williams has been published in 2016. His research interests focus on the application of different microscopies to understand how the structure and chemistry of materials determine their properties and behavior. He is currently working on several projects including a study of the deformation of Ta and its growth in thin-film form, electrospinning of TiO₂, lithiation of nanomaterials, especially Sn whiskers and MoS₂, for battery applications, and how the crystallization dynamics control the properties of phase-change materials.



DIRECTIONS

MU Bond Life Sciences Center
1201 Rollins Street
Columbia, Missouri 65211-7310

<https://bondlsc.missouri.edu/contact/>

Parking

Parking is available either using the link below to reserve parking in the Virginia Avenue Garage, or limited metered parking is located at the Virginia Avenue Surface Lot (adjacent to garage). Both are located just one block south of the Bond Life Sciences Center.

<https://mu.nupark.com/events/Events/Register/db3f56a2-ef07-4fa3-9390-d31a2779195c>

