4th Year Public Talk – Schedule 2023-2024

Fall 2023

Thursday, September 7th - 1:00 pm – OM10

Speaker: Guanyu Wang (Moitessier/Mittermaier) Title: Covalent Drug Discovery for Pandemic Preparedness: An Integrated Approach Against Coronaviruses Moderator: Hui Wen Yong (Kakkar)

Monday, September 11th - 1:00 pm – OM10

Speaker: Yiram Kim (Li) Title: Efficient and Sustainable Synthesis of Value-Added Boron and Nitrogen Compounds through Modern Methodologies Moderator: Daliah Farajat (Li)

Thursday, September 14th - 1:00 pm – OM10

Speaker: Florencia Fungo (Cosa) Title: Lipid peroxidation in bacteria as seen with new eyes: A friend or foe? Moderator: Simon Edelmann (Lumb)

Monday, September 18th - 1:00 pm – OM10

Speaker: Nicolas Gastellu (Simine) Title: Simulation of electronic transport in mesoscale amorphous graphene Moderator: Anthony Izzotti (Gleason)

Thursday, September 21st - 1:00 pm – OM10

Speaker: Alexander Logozzo (Preston) Title: Physical properties and chemical transformations of aerosol particles in metastable states Moderator: Florencia Fungo (Cosa)

Monday, September 25th - 1:00 pm – OM10

Speaker: Anthony Izzotti (Gleason) Title: Study of a Diverted Organocatalytic Cope Rearrangement and Reinvestigation of the [14+2]-Cycloaddition Moderator: Galen Suh (Bohle)

Thursday, September 28th - 1:00 pm – OM1

Speaker: Yu Wang (Simine) Title: Quantum dynamics via Monte Carlo in phase space Moderator: Alexander Logozzo (Preston)

Monday, October 2nd - 1:00 pm - OM10

Speaker: Galen Suh (Bohle) Title: Structural Variation and Coformer Diversity of Late Row, Bulky, Non-planar Organopnictogen Derivatives Moderator: Nicolas Gastellu (Simine)

Thursday, October 5th - 1:00 pm – OM10

Speaker: Derek Meng (Lumb) Title: A Redox-Neutral Biomimetic Total Synthesis of Podophyllotoxin Moderator: Yu Wang (Simine)

Monday, October 16th - 1:00 pm – OM10

Speaker: Cory Ruchlin (Perepichka) Title: Photophysics of Exotic Excited States in Organic Materials Moderator: Chunling Lan (Auclair)

Thursday, October 19th - 1:00 pm – OM10

Speaker: Sepideh Kaviani (Sleiman) Title: Exploring DNA-Amphiphiles Assemblies: From Formation to Applications in Biology Moderator: Zhizhong Gao (Gleason)

Monday, October 23rd - 1:00 pm – OM10

Speaker: Shipeng Jia (McCalla) Title: Exploring Composition and Doping Effects in Sodium-Ion Batteries: A High-Throughput Study Moderator: Cory Ruchlin (Perepichka)

Thursday, October 26th - 1:00 pm – OM10

Speaker: Chunling Lan (Auclair) Title: Harnessing the Catalytic Ability of 1,5,7-Triazabicyclo-[4.4.0]dec-5-ene (TBD): Synthetic Methodologies and Applications in Medicinal Chemistry Moderator: Fangzhou Zhao (Sleiman)

Thursday, November 9th - 1:00 pm – OM10

Speaker: Siyi Luo (Li) Title: Hydrazine mediated formation or functionalization of unsaturated system Moderator: Guanyu Wang (Moitessier/Mittermaier)

Monday, November 13th - 1:00 pm – OM10

Speaker: Fangzhou Zhao (Sleiman) Title: DNA-Small Molecule Branching Scaffolds: Design, Synthesis, and Applications in Template-Assembled Mini Proteins Moderator: Micaela Belleperche (McKeague)

Thursday, November 16th - 1:00 pm – OM10

Speaker: Simon Edelmann (Lumb) Title: A 1,2-phenol isomerization through an oxygenation/deoxygenation strategy Moderator: Siyi Luo (Li)

Thursday, November 23rd - 1:00 pm – OM10

Speaker: Micaela Belleperche (McKeague) Title: Design and application of fluorescent aptamer switches Moderator: Derek Meng (Lumb)

Monday, December 4th - 1:00 pm – OM10

Speaker: Hui Wen Yong (Kakkar) Title: Functional Polymers for Biomedical Applications Moderator: Sarah Yassine (Mauzeroll)

Monday, December 11th - 1:00 pm – OM10

Speaker: Linda Bechnak (Friscic) Title: The role of liquid in organic transformations studied by resonant acoustic mixing Moderator: Cameron Lennox (Friscic)

Thursday, December 14th - 1:00 pm – OM10

Speaker: Cameron Lennox (Friscic) Title: Mechanochemistry by Resonant Acoustic Mixing (RAM) Moderator: Linda Bechnak (Friscic)

Winter 2024

Monday, January 8th - 1:00 pm – OM10

Speaker: Cuihan Zhou (Arndtsen) Title: The Light Induced Metal Catalyzed Carbonylative Synthesis of Alkyl Isocyanates or Acyl Electrophiles, and 1,3-Dipolar Cycloaddition Reactions with Mesoionic Oxygenbased Dipoles Moderator: Alexander Hebert (McCalla)

Monday, January 15th - 1:00 pm – OM10

Speaker: Nathaniel Leslie (Mauzeroll) Title: Automated Estimation of Kinetics from Scanning Electrochemical Microscopy Images Moderator: Cuihan Zhou (Arndtsen)

Thursday, January 18th - 1:00 pm – OM10

Speaker: Ethan Anderson (McCalla/Khaliullin) Title: High-throughput Studies of Li-La-Zr-O Garnet Solid Electrolytes Moderator: Alexander Al-Feghali (Blum/Cosa)

Monday, January 22nd - 1:00 pm - OM10

Speaker: Kaleena Basran (Luedtke) Title: Mechanistic insight into click chemistry within DNA Moderator: Nathaniel Leslie (Mauzeroll)

Thursday, January 25th - 1:00 pm – OM10

Speaker: Chenghao Liu (Perepichka) Title: TBD Moderator: Lucia Youssef (Harrington)

Thursday, February 1^{st} - 1:00 pm – OM10

Speaker: Sarah Yassine (Mauzeroll) Title: Developing Quantitative Corrosion Methods Adapted to Compact Tension Specimens for Standardized Crack Growth Tests Moderator: Chenghao Liu (Perepichka)

Monday, February 5th - 1:00 pm – OM10

Speaker: Tyler Brown (Sleiman) Title: Stabilization of Functional DNA Nanomaterials through Minimal Photochemical Methods Moderator: Shi Yin (Cosa)

Thursday, February 8th - 1:00 pm – OM10

Speaker: Alexander Al-Feghali (Blum/Cosa) Title: Bottom-up Fabrication & Individual Characterization of Virus-Templated Plasmonic Nanomaterials Moderator: Ethan Anderson (McCalla/Khaliullin)

Monday, February 12th - 1:00 pm – OM10

Speaker: Alexander Hebert (McCalla) Title: Combinatorial investigation of layered transition metal oxide cathode materials for Li-ion batteries Moderator: Sepideh Kaviani (Sleiman)

Thursday, February 22nd - 1:00 pm – OM10

Speaker: Andy Yin (Cosa) Title: Photoinduced electron transfer based photoswitching agents, photostabilizers and self-healing dyes for single molecule microscopy and fluorogenic probes for cellular reactive oxygen species detection Moderator: Kaleena Basran (Luedtke)

Thursday, February 29th - 1:00 pm – OM10

Speaker: Lucia Youssef (Harrington) Title: Exploring the Functional Gradients in Mussel Byssus Moderator: Tyler Brown (Sleiman)