Florida Inorganic and Materials Symposium 2019 (FIMS 2019)

presented by the

University of Florida
Department of Chemistry

October 11 - October 12, 2019

2019 Drago Lecturer

Dr. Mark Hampden-Smith

Dr. Hampden-Smith received his PhD in Inorganic/ Materials Chemistry from Queen Mary College, London in 1984, followed by two postdoctoral positions in catalysis (Univ of Guelph and Indiana Univ). He held a chemistry faculty position at the Univ of New Mexico from 1988-1998 focused on Materials Chemistry. In addition to receiving a number of awards, he was the 10th most cited Materials Scientist worldwide for 1990-1994, published ~250 papers, and authored and edited several books. He then left UNM to co-found a start-up company in electronic and energy materials, Superior MicroPowders, which was subsequently purchased by Cabot Corporation in 2003. Mark went on to become Global Technology Director in Cabot Performance Materials and, in 2016, joined Saint Gobain where he is currently VP of R&D for Ceramic Materials. He holds ~120 issued US Patents.

Vice President, R & D
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Northborough, MA, USA

October 11th (Friday)

1:00 pm	Check-in and coffee	JHH 2nd Floor
1:45 pm	Welcome speech - Dr. George Christou	
	Session 1 — Alok Singh	JHH 221
1:50 pm	Bochuan Song (UF): Synthesis of Well-defined Heterogeneous Catalysts using Atomic Layer Deposition	
2:10 pm	Will Henderson (UF): The Influence of Amide Connectivity on the Homochiral Self-Assembly of [2.2]Paracyclophanes	
2:30 pm	Qingpu Wang (FSU): Self-Organization of Complex Membranes in Microfluidic Devices	
2:50 pm	Coffee break	
	Session 2 — Christopher Brewer	JHH 221
3:10 pm	Nathan Ou (UF): Synthesis of Organometallic Precursors for Chemical Vapor Deposition	

3:30 pm	Zhihui Miao (UF): Polyacetylene without Chain Ends
3:50 pm	Dallas Mann (FSU): Electrocatalytic Water Oxidation Over $AlFe_2B_2$
4:10 pm	Coffee break
	Session 3 — Yu-Hsuan Shen JHH 221
4:40 pm	Jacob Lessard (UF): Vinylogous Urethane Vitrimers: Reprocessable Thermosets
5:00 pm	David Fairchild (UCF): A Solid Solution Approach for Redox Active Metal Organic Frameworks with Tunable Redox Conductivity
5:20 pm	Zach VanOrman (FSU): Triplet Fusion Upconversion Beyond Conventional Quantum Dots
5:40 pm	Will Buratto (UF): Multinuclear Iron-Sulfide Complexes as Synthetic Models of Biological Iron-Sulfur Complexes
6:00 pm	**WINE AND CHEESE RECEPTION** **21 & above only** JHH 2nd Floor

October 12th (Saturday)

8:10 am	Breakfast (JHH 2nd Floor) and poster preparation (JHH 1st Floor)
	Session 4 — Steven LoCicero JHH 221
8:40 am	Shreedevi Kumar (UF): Manganese Dioxide Nanoparticles Protect Cartilage from Inflammation-Induced Oxidative Stress
9:00 am	Daniel Dickerson (FAMU): Development of a Laboratory for *in situ* Monitoring of Gas-Surface Reactions
9:20 am	Joshua Silverman (FIU): Coordination Chemistry of the Rhodizonate and Croconate Oxocarbons with Toxic Metals: Structural and Spectroscopic Studies
9:40 am	Coffee break
	Session 5 — Devender Singh JHH 221
9:50 am	Sayak Das Gupta (UF): Ce/Mn Clusters from Reductive Aggregation: Unusual Long-Range Ferromagnetic Mn---Mn Exchange Coupling through Ce(IV)

10:10 am	Harsh Vardhan (USF): Pore Surface Engineering of Covalent Organic Frameworks for Pivotal Organic Conversions	
10:30 am	Robert Stewart (FSU): Evidence for Direct Exchange Coupling through Mn-Ce-Mn Pathways	
10:50 am	Coffee break and FIMS Picture	
11:30 am	**Drago Session — Dr. George Christou**	JHH 221

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Dr. Mark Hampden-Smith
A Pirate Story

12:30 pm	**Lunch**	
1:30 pm	Poster Session	
3:00 pm	Take down posters	
	Session 6— Ethan Fisher	JHH 221
3:10 pm	Megan Aubin (UCF): Direct Measurement of Nanosized Li Dendrite Growth Stress by *in situ* TEM	
3:30 pm	Matthew Mancini (NCF): Constant Cooling Rate Cycles for Glass Transition Determination via Differential Scanning Calorimetry	
3:50 pm	Alyssa Henderson (FSU): Order-Disorder Transition in the $S = 1/2$ Antiferromagnets Claringbullite & Barlowite	
4:10 pm	Coffee break	
	Session 7— Victoria Lorenzo	JHH 221
4:20 pm	Shuyao Zhang (USF): Gold Catalyzed Oxidative Coupling for Carbon-carbon Bond Formation	
4:40 pm	Carl Conti (FSU): Probing Carrier Density in Plasmonic ITO Nanocrystals via ^{119}Sn ssNMR	
5:00 pm	Alex Jess (UF): Nanoparticle-based Processing for Thin-film Chalcogenide Semiconductors	
5:20 pm	Mark Schnepper (UCF): Inverse Chromatography to Characterize Drug Concentration Losses to *in vitro* Systems	
5:40 pm	Presentation of poster prizes Closing remarks by Dr. George Christou	