



# 2012 Ohio Inorganic Weekend Oral Presentations

8:00 a.m.–6:30 p.m.  
 Saturday, October 20, 2012  
 Wayne State University  
 Chemistry Building

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Office of the Vice President for Research,  
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8:00–8:25 a.m.	Coffee		
8:25–8:30 a.m.	Welcome from Wayne Raskind, Dean, College of Liberal Arts & Sciences, Wayne State University		
8:30–9:50 a.m.	Session Moderator: Matt Allen, Wayne State University		
8:30–8:50 a.m.	<b>T1</b>	Uniform Thin Films of CdSe and CdSe(ZnS) Core(shell) Quantum Dots by sol-gel Assembly: Effect of the Interfaces on Optoelectronic Properties	Lasantha Korala Wayne State University Advisor: Stephanie Brock
8:50–9:10 a.m.	<b>T2</b>	6,6'-Dihydroxy Terpyridine: A Proton-Responsive Bifunctional Ligand for Hydrogen Transfer	Cameron Moore University of Michigan Advisor: Nate Szymczak
9:10–9:30 a.m.	<b>T3</b>	Structural Manipulation of Fe <sub>2</sub> S <sub>2</sub> Hydrogenase- Inspired Electrocatalysts	Elizabeth Donovan Oakland University Advisor: Greg Felton
9:30–9:50 a.m.	<b>T4</b>	Kinetics and Mechanistic Studies on the Reactions of the Reactive Oxygen Species Hypochlorous Acid/Hypochlorite and Superoxide with Reduced Vitamin B <sub>12</sub> Complex Cob(II)alamin	Rohan Dassanayake Kent State University Advisor: Nicola Brasch
9:50–10:30 a.m.	Coffee Break Building Tour (Judy Westrick, Director of the Lumigen Instrument Facility)		

10:30–11:50 a.m.		Session Moderator: Nate Szymczak, University of Michigan		
10:30–10:50 a.m.	<b>T5</b>	Reactions of a Pd(II) Complex & Bromine: Toward Establishing the Relationship between Redox Potential & Chemical Oxidation	Allison Muldoon	University of Cincinnati Advisor: William Connick
10:50–11:10 a.m.	<b>T6</b>	Photo-mechanical Effects of Amorphous Polymers with Photochromic Ruthenium Complexes	Yuhuan Jin	Ohio University Advisor: Jeff Rack
11:10–11:30 a.m.	<b>T7</b>	Synthesis and Photophysical Properties of Air-Stable Benzoxaphospholes	Shanshan Wu	Case Western Reserve University Advisor: John Protasiewicz
11:30–11:50 a.m.	<b>T8</b>	Hydrogen-Terminated Germanane: An Air-Stable Germanium Graphane Analogue	Elisabeth Bianco	The Ohio State University Advisor: Joshua Goldberger
11:50 a.m.–1:30 p.m.		Lunch Break		
1:30–2:50 p.m.		Session Moderator: Greg Felton, Oakland University		
1:30–1:50 p.m.	<b>T9</b>	An Atom-Economical Route to <i>N</i> -Allylamines via the Hydroamination of Allenes	John Beck	University of Toledo Advisor: Joe Schmidt
1:50–2:10 p.m.	<b>T10</b>	Kinetic Analysis of High Efficiency Non-Coherent Photon Upconversion with Large Anti-Stokes Shifts	Fan Deng	Bowling Green State University Advisor: Felix Castellano
2:10–2:30 p.m.	<b>T11</b>	The Design of Two Sulfite/Nitrite Reductase Inspired Complexes for Electron Transfer and Substrate Reduction	Deidra Gerlach	University of Michigan Advisor: Nicolai Lehnert
2:30–2:50 p.m.	<b>T12</b>	Synthesis, Characterization and Application of Novel, Sterically Demanding Dipyrinatoaluminum Complexes	Chris Gianopoulos	University of Toledo Advisor: Mark Mason
2:50–3:30 p.m.		Coffee Break Building Tour (Judy Westrick, Director of the Lumigen Instrument Facility)		
3:30–4:50 p.m.		Session Moderator: Stas Groysman, Wayne State University		

3:30–3:50 p.m.	<b>T13</b>	Development of a Small Molecule Targeting Multiple Facets of Brain Disease	Akiko Kochi	University of Michigan Advisors: Sylvie Garneau-Tsodikova and Mi Hee Lim
3:50–4:10 p.m.	<b>T14</b>	Impact of Negative Thermal Expansion Material Cubic Zirconium Tungstate on Polycarbonate Nanocomposites	Xiaodong Gao	University of Toledo Advisor: Cora Lind
4:10–4:30 p.m.	<b>T15</b>	Evidence of Ni(0)-arene $\pi$ -complexes in Cross-Coupling Reactions and Their Impact on Chain-Growth Polymerizations	Zachary Bryan	University of Michigan Advisor: Anne McNeil
4:30–4:50 p.m.	<b>T16</b>	Modulating the Redox and Electronic Properties of a Series of Octahedral Cobalt(III) Complexes in Phenol Rich Ligands	Debashis Basu	Wayne State University Advisor: Cláudio Verani
4:50–5:05 p.m.		Coffee Break		
5:05–6:05 p.m.		Session Moderator: Jenn Stockdill, Wayne State University		
5:05–5:25 p.m.	<b>T17</b>	Characterization and Reduction of a Five-Coordinate Ferrous Non-Heme Iron Nitrosyl: Modeling the Fe <sub>B</sub> Site of Bacterial NO Reductase	Amy Speelman	University of Michigan Advisor: Nicolai Lehnert
5:25–5:45 p.m.	<b>T18</b>	Multifunctional Molecule to Target and Regulate Metal-Associated A $\beta$ Species and Reactive Oxygen Species in Alzheimer's Disease	Sanghyun Lee	University of Michigan Advisor: Mi Hee Lim
5:45–6:05 p.m.	<b>T19</b>	Bifunctional Electrolytes for Lithium-Ion Batteries	Mike Rectenwald	Case Western Reserve University Advisor: John Protasiewicz
6:05–6:25 p.m.	<b>T20</b>	X-Ray and MRI Bimodal Imaging Contrast Agents Based on Gadolinium-Bismuth Hexacyanoferrate(II)	Vindya Perera	Kent State University Advisor: Songping Huang
6:25–6:30 p.m.		Closing Remarks, Matt Allen, Wayne State University		