

2023 SoCal Organometallics Meeting

Saturday June 3, 2023



University of California, Riverside

Sponsored by: UCR Chemistry Department, Catapower, Chevron Phillips Chemical, and San Geronio and Southern California ACS sections.

| | |
|----------------------|--|
| 11:00 – 11:55 | Arrival/Lunch <i>(provided)</i> |
| 11:55 | Introduction (Ana Bahamonde) |
| | Session 1 Session Chair: Robert Bradley (Bahamonde group) |
| 12:00 | <i>Development of an Asymmetric Electrochemical-NHK Reaction using Multivariate Linear Regression Analyses</i> Arianne Hunter, Caltech (Reisman group) |
| 12:20 | <i>Synthesis of Silicon-Germanium and Germanium Adamantane Clusters</i> Imex Aguirre Cardenas, UC Riverside (Su group) |
| 12:40 | <i>Preparation of cationic bipyridyl ligands via a C–H trimethylamination approach and their influence on the physical properties of transition metal</i> Ryan King, UC Irvine (Yang group) |
| 1:00 | <i>Iridium-Based Di-, Tri-, Tetra-, and Pentanuclear Polyhydride Clusters: CO₂ Hydrogenation and Hydride Reactivity</i> Valeriy Cherepakhin, USC (Williams group) |
| 1:20 | <i>A Fenton Inspired Method to Synthesize Diarylmethanes</i> Robert Crowley III, UC Riverside (Kou group) |
| 1:40 | <i>Synthesis and reaction chemistry of a terminal nickel carbyne</i> Ritchie Hernandez, UCSD (Figueroa group) |
| 2:00 | <i>Enantioselective Hydroalkenylation and Hydroalkynylation of Alkenes Enabled by a Transient Directing Group</i> Amit Simlandy, The Scripps Research Institute (Engle group) |

| | |
|-------------|--|
| 2:20 | <i>Flash: Cobalt Phosphinothiolate Complex for Homogeneous Electrocatalytic Reduction of CO₂ to Formic Acid and Syngas</i> David Velazquez, USC (Marinescu group) |
| 2:30 | <i>Flash: Exploring Charge Transfer/ Transport in Tetraaryl Osmium Complexes</i> Luana Zagami, USC (Inkpen group) |
| 2:40 | <i>Flash: A Shortcut to Alkylidenes - Photoinduced Isomerization of β,β'-Disubstituted Tungstacyclopentane Complexes Through Metal-Assisted Hydrogen Atom Migrations</i> René Riedel, UC Riverside (Schrock group) |

2:50 – 3:20

Coffee Break

Session 2

Session Chair: Tim Siu (Su group)

| | |
|-------------|--|
| 3:20 | <i>A rapid electrochemical method to recycle carbon fiber reinforced plastics using carbon-centered radicals</i> Y. Justin Lim and Zehan Yu, USC (Williams and Nutt groups) |
| 3:40 | <i>Accessing Enantioenriched α-aryl O-heterocycles using Ni/Ir Photoredox Catalyzed Cross Coupling</i> Brennan McManus, UC Riverside (Bahamonde group) |
| 4:00 | <i>Solvent and Charge Effects on the Redox Behavior of Heterobimetallic Salen-Crown Complexes</i> Nadia Leonard, UC Irvine (Yang group) |
| 4:20 | <i>New Approaches to Actinide-Carbon Multiple Bonds</i> Thien Nguyen, UCSB (Hayton group) |
| 4:40 | <i>Breaking Kinetic Record for Cysteine Bioconjugation with Organometallic Reagents</i> Evan Doud, UCLA (Spokoyny group) |
| 5:00 | <i>CAAC-Cu Catalysis Enables Rapid Synthesis of Complex Small Molecules</i> Skyler Mendoza, The Scripps Research Institute (Engle group) |
| 5:20 | <i>The Positional Effects on the Optimization of an Immobilized Re Tricarbonyl Catalyst</i> Jeremiah Choate, USC (Marinescu group) |
| 5:30 | <i>Flash: Conductance Trends in $[n]$staffanes</i> Ashley Pimentel, UC Riverside (Su group) |
| 5:40 | <i>Flash: An Organometallic Strategy for Peptide Macrocyclization</i> Nima Adhami, UCLA (Spokoyny group) |
| 5:50 | <i>Flash: Organometallic Coordination Networks Containing Low-Valent Metal Nodes and Isocyanide Linkers</i> Adam Grippo, UCSD (Figueroa group) |

6:00-8:00pm

Dinner/Poster Session

Poster Presentations

| # | Presenter | Institution | Title |
|----|--|-------------------------|--|
| 1 | Garrett Musil | UCSD (Stauber group) | Fe(II)-Anchored Glycosylated Cages for Use in Biological Molecular Recognition |
| 2 | Lang Cheng Hung | UCR (Bahamonde group) | Accessing Enantioenriched α -aryl O-heterocycles using Ni/Ir Photoredox Catalyzed Cross Coupling |
| 3 | Andrew Rander | USC (Williams group) | Dehydrogenation of Ethanol For Next Generation Fertilizers |
| 4 | Leo Morag | UCLA (Diaconescu group) | Examination of a bimetallic redox-responsive catalyst for the coupling of carbon dioxide and epoxides |
| 5 | Kimberly Sharp, Vaishnavi Nair, and Jay Barbor | Caltech (Stoltz group) | Development of a Ni-Catalyzed N–N Coupling for the Synthesis of Hydrazides |
| 6 | Christian M Johansen | Caltech (Peters group) | Catalytic reduction of cyanide to ammonia and methane at a mono-nuclear Fe-site |
| 7 | Ashley Pimentel | UCR (Su group) | Conductance Trends in [n]staffanes |
| 8 | Clarabella Li | UC Irvine (Yang group) | Investigating Redox-Active Guanidines for CO ₂ Capture |
| 9 | Kevin Liang | UCR (Bahamonde group) | Nickel Photoredox Nitrogen Funtionization of Indoles |
| 10 | Andrea Stegner | Caltech (Reisman group) | Development of a Ni-catalyzed cross-electrophile fragment coupling for the synthesis of isodocarpin |
| 11 | Kali Flesch and Ruby Chen | Caltech (Stoltz group) | Divergent Catalysis: Catalytic Asymmetric [4+2] Cycloaddition of Palladium Enolates |
| 12 | Thomas Czyszczon-Burton | USC (Inkpen group) | Silver-Halogen Contacts for Single Molecule Conductance Measurements |
| 13 | Ana Garcia | UC Irvine (Yang group) | Exploration of heterobimetallic complexes for CO ₂ activation |
| 14 | Yashna Khakre | USC (Marinescu group) | Dithiolene-based Metal-Organic Frameworks for Hydrogen Evolution from Water |
| 15 | Robert Bradley | UCR (Bahamonde group) | Mechanistic studies of amide arylation under mild conditions enabled by nickel-photoredox catalysis |
| 16 | Linh Le | Caltech (Agapie group) | C-C coupling and site differentiation in reaction with CO in a FeS cluster model of FeMoco |
| 17 | Melissa Ramirez | Caltech (Stoltz group) | Development of an Enantioselective Ni-Catalyzed α -Spirocyclization of Lactones |
| 18 | Milan Maji | UCR (Schrock group) | Syntheses of Tungstacyclopentanes from Dienes and Their Photochemical Conversions to Alkylidenes |
| 19 | Luana Zagami | USC (Inkpen group) | Exploring Charge Transfer/ Transport in Tetraaryl Osmium Complexes |
| 20 | Adam Samuel | USC (Marinescu group) | Exogenous Acid and its Effects on Electrocatalytic CO ₂ Reduction with a Cobalt Aminopyridine Complex |
| 21 | Olivia Taylor | UCR (Bahamonde group) | Harnessing machine learning to streamline reaction optimization |
| 22 | Nima Adhami | UCLA (Spokoyny group) | An Organometallic Strategy for Peptide Macrocyclization |
| 23 | David Velazquez | USC (Marinescu group) | Co phosphinothiolate complex for homogeneous electrocatalytic reduction of CO ₂ to Formic Acid & Syngas |
| 24 | Adam Grippo | UCSD (Figueroa group) | Organometallic Coordination Networks Containing Low-Valent Metal Nodes and Isocyanide Linkers |
| 25 | Daniel Bím | Caltech (Hadt group) | Inspecting the Structure-Function Relationships in Nickel–Bipyridine Photoredox Catalysis |
| 26 | Hootan Roshandel | UCLA (Diaconescu group) | Redox active Ti complexes for the polymerization of cyclic esters and epoxides |
| 27 | Viet Tran | UCSD (Figueroa group) | Building a ruthenium analogue of a well studied iron system |
| 28 | Caitlyn Cruz | CPP (Stieber group) | Reactivity of bidentate N-heterocyclic nickel complexes with various CO ₂ sources |
| 29 | A. J. Chavez | USC (Williams group) | Self-Pressurizing Dehydrogenation of A Formic Acid Based Media |
| 30 | Hunter N. Pauker | UCI (Nielsen group) | Data Directed Optimization of Catalysts |
| 31 | Yin Pok Wong | UCLA (Diaconescu group) | Using Classifiers to Predict Catalyst Design for Polyketone Microstructure |