For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Jason England
School of Physical and Mathematical Sciences
Nanyang Technological University

Title: A talk of two halves: ligand redox noninnocence in highly oxidized carbodicarbene complexes, and exploring the oxidative reactivity of superoxocopper(II)

<< Abstract >>

Work on two superficially unrelated topics will be presented. The first revolves around the synthesis and assignment of the electronic structures of a series of highly oxidized Fe, Co and Cr complexes supported by a neutral carbodicarbene (CDC) ligand. More specifically, redox series comprised of [M(L)2]n+, where M = Fe, Co and Cr; and n = 2 – 5. CDCs, also referred to as bent allenes, possess two pairs of largely non-bonding electrons at their central C-atom. In principle, both of these pairs of electrons can interact with a single metal centre, one via -donation and the other by -donation (to form a metal-carbon double bond). However, the high energy of the latter pair of electrons, also, renders CDC ligands potentially redox active. Based upon a combination of spectroscopic measurements and DFT calculations, these two possibilities will be discussed. The second topic will detail some of our efforts to synthesize and study the reactivity of superoxocopper(II) complexes, which are evidenced to be active species in several enzymes that are responsible for substrate C-H and O-H bond oxidation reactions. Model (small molecule) complexes containing this moiety tend to be highly unstable and are, overwhelmingly, studied at temperatures ≤ -80 C. Using a ligand design approach, we were able to endow a series of superoxocopper(II) complexes with unprecedented stability, whilst retaining significant reactivity with substrates. This allows for the possibility of extensive mechanistic studies of substrate oxidation.

Date: July 10, 2019 (Wednesday)

Time: 10:30 a.m.

Venue: Room 106, Y.C. Liang Hall

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Contact Person:
Prof. H.K. Lee

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The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Lei Zhou
School of Chemistry and Chemical Engineering
Sun Yat-Sen University

Title: Picking two out of three: visible light promoted dual C-F bond cleavage in a CF3 group

Date: July 11, 2019 (Thursday)

Time: 2:30 p.m.

Venue: Room 106
Y.C. Liang Hall

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Contact Person:
Prof. Gavin C. Tsui

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

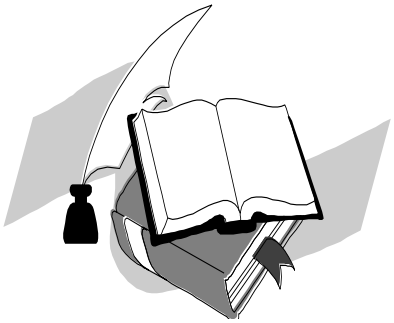
Speaker: Professor Jian Zhou
School of Chemistry and Molecular Engineering
East China Normal University

Title: Enantioselective Functionalization of Fully Substituted C=N Double Bond

Date: July 12, 2019 (Friday)

Time: 2:30 p.m.

Venue: Room 103
Y.C. Liang Hall



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Contact Person:
Prof. Gavin C. Tsui

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Kazuo Takimiya
Department of Chemistry
Tohoku University

Title: Design of Thienoacene Based Organic Semiconductors: from Molecules to Molecular Solids

Date: July 15, 2019 (Monday)

Time: 2:30 p.m.

Venue: Room G04
Y.C. Liang Hall

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Contact Person:
Prof. Qian Miao

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Daniel Tomasz Gryko
Institute of Organic Chemistry
Polish Academy of Sciences

Title: Pyrrolo[3,2-b]pyrroles - Electron-rich Functional Heterocycles

Date: July 17, 2019 (Wednesday)

Time: 10:30 a.m.

Venue: Room 103
Y.C. Liang Hall

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Contact Person:
Prof. Qian Miao

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

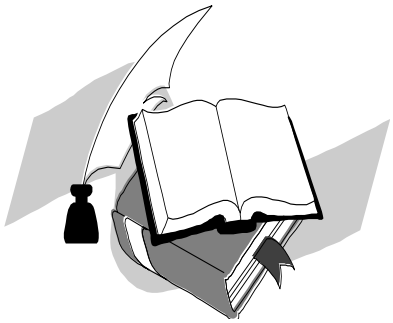
Speaker: Professor Qingxia Liu
Faculty of Engineering
University of Alberta

Title: Coalescence or Bounce? How Surfactant Adsorption in Milliseconds Affects Bubble Collision

Date: July 19, 2019 (Friday)

Time: 2:30 p.m.

Venue: Room 103
Y.C. Liang Hall



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Contact Person:
Prof. To Ngai

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Leaf Huang
Eshelman School of Pharmacy
University of North Carolina at Chapel Hill

Title: Targeting Tumor Microenvironment for Immunotherapy

Date: July 24, 2019 (Wednesday)

Time: 10:30 a.m.

Venue: L1
Institute of Chin Studies

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Contact Person:
Prof. Jiang Xia

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Professor Peter Metz
Fakultät Chemie und Lebensmittelchemie
Organische Chemie I
Technische Universität Dresden
Germany

Title: Total Synthesis of Terpenoid Natural Products

Date: July 24, 2019 (Wednesday)

Time: 2:30 p.m.

Venue: Room G03
Y.C. Liang Hall

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Contact Person:
Prof. Michael F.Y. Kwong