For favour of posting

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

Speaker: Professor George A. O'Doherty
Department of Chemistry
Northeastern University

Title: De Novo Asymmetric Synthesis of Natural Products for Stereochemical Structure Activity Relationship (S-SAR) Studies

Date: May 9, 2018 (Wednesday)

Time: 2:30 p.m.

Venue: L3
Science Centre

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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 Tiow-Gan Ong
Institute of Chemistry, Academia Sinica, Taipei

Title: Carbone and Catalysis

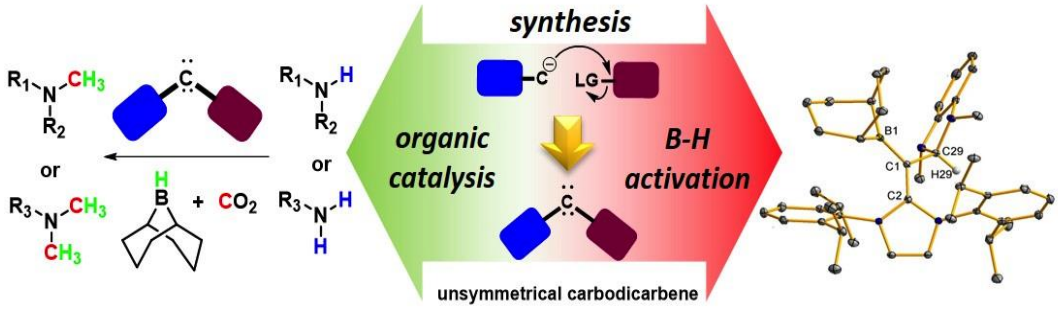
Date: May 10, 2018 (Thursday)

Time: 10:30 a.m.

Venue: L3, Science Centre

< Abstract >

Carbone is a special class of carbon compound with a structural CL_2 that feature a dicoordinated central carbon (0) bearing two lone pairs of electrons flanked by dative ligands (L) units. When L is an NHC or carbene, a particular carbone with a carbon→carbon dative bond is formed. This carbone species is classified as a carbodicarbene (CDC) with a formulation of NHC→C←NHC. Due to the two lone pairs on the central carbon, carbone or carbodicarbene has a strong σ-donating scaffold. In describe the development of a synthetic protocol for the preparation of carbodicarbenes with unsymmetrical side arms and investigate their late transition metal complexes and intrinsic reactivities. The ligand carbodicarbene is used for possible catalysis application and main group chemistry.



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Contact Person:
Prof. Michael F.Y. Kwong

For favour of posting

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

Speaker: Professor Jia Xie
School of Electrical and Electronic Engineering
Huazhong University of Science and Technology

Title: Natural polymer based energy storage materials and devices

Date: May 11, 2018 (Friday)

Time: 4:30 p.m.

Venue: L1
Science Centre

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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 Hyunwoo Kim
Department of Chemistry
Korea Advanced Institute of Science and Technology (KAIST)

Title: Geometrical Constraints in Design of Metal Ligands and Chiral Sensors

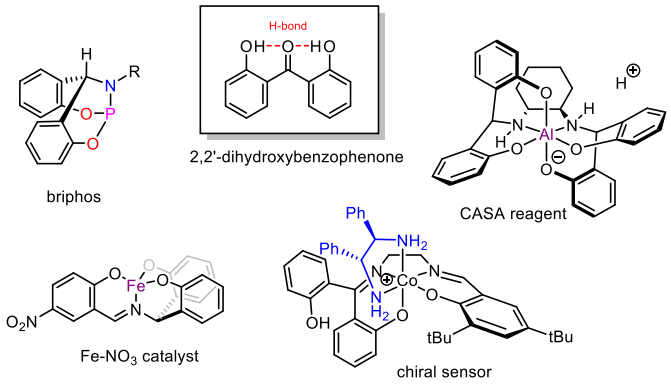
Date: May 18, 2018 (Friday)

Time: 4:30 p.m.

Venue: L1, Science Centre

< Abstract >

The so-called privileged ligands have been creatively used to enhance the catalytic performance of various transition metals. The ultimate goal of my research is to develop another class of privileged ligands for organo- and transition-metal catalysts. During the last several years of research, we have observed a remarkable reactivity of 2,2'-dihydroxybenzophenone, which is based on a new phosphorus ligand (briphos) and chiral sensors (CASA reagents). In order to explain the unexpected electronic properties of briphos ligands, we have proposed a new concept, geometric control, to modulate the ligand property in addition to conventional steric and electronic control. We have shown that the briphos ligand can be a tunable and scalable π–acceptor ligands for Rh-catalyzed conjugate additions of boronic acids and Pd-catalyzed dehydrative couplings of allylic alcohols. We also have reported that negatively charged octahedral Al complexes can be conveniently used for ^{1}H NMR chiral analysis of various charged molecules including amines and carboxylic acids as well as alcohols. In addition, a new Fe-NO_3 catalyst was developed and used for selective formation of cyclic carbonates from internal epoxides and CO_2.



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Contact Person:
Prof. Gavin C. Tsui

For favour of posting

The Chinese University of Hong Kong

Seminar

Jointly Organized by

Department of Chemistry
School of Life Science

（普通話主講）

Speaker: Professor Jianji Wang (王鍵吉教授)
School of Chemistry and Chemical Engineering (化學化工學院)
Henan Normal University (河南師範大學)

Title: CO_2 响應離子液體的設計及應用

Date: 21 May, 2018 (Monday)

Time: 2:30 p.m.

Venue: L3
Science Centre

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Contact Person:
Prof. Zuowei Xie

For favour of posting

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

Speaker: Professor Kazuaki Ishihara
Graduate School of Engineering
Nagoya University

Title: Rational Design of High Performance Catalysts Based on Acid–Base Combination Chemistry

<< Abstract >>

We have studied on rational design of high performance catalysts based on acid–base combination chemistry. In this lecture, two topics are focused. One is "Cooperative catalytic system of chiral Lewis base catalysts and Lewis acids for enantioselective halocyclizations."[1] The other is "Highly active chiral strong Brønsted acid–base salt catalysts for several enantioselective reactions."[2]

References

1. (a) Sakakura, A.; Ukai, A.; Ishihara, K. *Nature* **2007**, *445*, 900. (b) Sawamura, Y.; Nakatsuji, H.; Sakakura, A.; Ishihara, K. *Chem. Sci.* **2013**, *4*, 4181. (c) Nakatsuji, H.; Sawamura, Y.; Sakakura, A.; Ishihara, K. *Angew. Chem. Int. Ed.* **2014**, 53, 6974. (d) Lu, Y.; Nakatsuji, H.; Okumura, M.; Yao, L.; Ishihara, K. to be submitted.
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Date: May 28, 2018 (Monday)

Time: 10:30 a.m.

Venue: L3, Science Centre

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Contact Person:
Prof. Y.Y. Yeung

For favour of posting

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

Speaker: Professor Kazuaki Ishihara
Graduate School of Engineering
Nagoya University

Title: Rational Design of High Performance Catalysts Based on Acid–Base Combination Chemistry

<< Abstract >>

We have studied on rational design of high performance catalysts based on acid–base combination chemistry. In this lecture, two topics are focused. One is "Cooperative catalytic system of chiral Lewis base catalysts and Lewis acids for enantioselective halocyclizations."[1] The other is "Highly active chiral strong Brønsted acid–base salt catalysts for several enantioselective reactions."[2]

References

1. (a) Sakakura, A.; Ukai, A.; Ishihara, K. *Nature* **2007**, *445*, 900. (b) Sawamura, Y.; Nakatsuji, H.; Sakakura, A.; Ishihara, K. *Chem. Sci.* **2013**, *4*, 4181. (c) Nakatsuji, H.; Sawamura, Y.; Sakakura, A.; Ishihara, K. *Angew. Chem. Int. Ed.* **2014**, 53, 6974. (d) Lu, Y.; Nakatsuji, H.; Okumura, M.; Yao, L.; Ishihara, K. to be submitted.
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Date: May 28, 2018 (Monday)

Time: 10:30 a.m.

Venue: L3, Science Centre

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Contact Person:
Prof. Y.Y. Yeung

For favour of posting

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

Speaker: Professor Kazuaki Ishihara
Graduate School of Engineering
Nagoya University

Title: Rational Design of Amidation and Esterification Catalysts Based on Acid–Base Combindation Chemistry

<< Abstract >>

We have studied on rational design of high performance catalysts based on acid–base combination chemistry. In this general lecture, two topics are focused. One is "Boronic Acid Catalysts for Dehydrative Condensation between Carboxylic Acids and Amines."[1,2] The other is "Acid–base Combined Catalysts for Esterification (acylation, transesterification, and dehydrative condensation)."[1,3–6]

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1. For a review article, see: Ishihara, K. *Tetrahedron* **2009**, *65*, 1085 (***Tetrahedron Report***).
2. For Boronic acid catalysts, see: (a) Ishihara, K.; Ohara, S.; Yamamoto, H. *J. Org. Chem.* **1996**, *61*, 4196. (b) Sakakura, A.; Ohkubo, T.; Yamashita, R.; Akakura, M. Ishihara, K. *Org. Lett.* **2011**, *13*, 892. (c) Yamashita, R.; Sakakura, A.; Ishihara, K. *Org. Lett.* **2013**, *15*, 3654. (d) Lu, Y.; Wang, K.; Ishihara, K. *Asian J. Org. Chem.* **2017**, *6*, 1111. (e) Ishihara, K.; Lu, Y. *Chem. Sci.* **2017**, *7*, 1276. (f) Wang, K.; Lu, Y., Ishihara, K. *Chem Commun.* **2018**, just accepted (**DOI**: 10.1039/C8CC02558D).
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Date: May 29, 2018 (Tuesday)

Time: 2:30 p.m.

Venue: L1, Science Centre

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Contact Person:
Prof. Y.Y. Yeung