For favour of posting

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

Speaker: Professor Liang Gaolin
Department of Chemistry
University of Science and Technology of China

Title: Employing Self-Assembly For Biomedical Imaging Applications

Date: March 7, 2019 (Thursday)

Time: 11:00 a.m.

Venue: Room 158
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: (1) Professor Redouane Borsali

(2) Professor Serge Cosnier

University Grenoble Alpes, CNRS
France

Title: (1) Carbohydrate Block Copolymer Self-Assemblies: Nanoparticles and Highly Nanostructured Thin Films

(2) Biomaterials based on carbon nanotubes and polymers for the design of electrochemical biosensors and enzymatic fuel cells

Date: March 8, 2019 (Friday)

Time: 2:00 p.m.

Venue: LT2
Lady Shaw Building

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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 Burkhard König
Faculty of Chemistry and Pharmacy
University of Regensburg
Germany

Title: Visible Light Photocatalysis: Basic concepts, recent advances and future perspectives

Date: March 15, 2019 (Friday)

Time: 4:30 p.m.

Venue: L1
Science Centre

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Contact Person:
Prof. K.S. Chan

For favour of posting

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

Speaker: Professor Junji Ichikawa
Department of Chemistry
University of Tsukuba
Japan

Title: Metal-Catalyzed C–F Bond Activation via Fluorine Elimination

Date: March 22, 2019 (Friday)

Time: 4:30 p.m.

Venue: L1
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
Faculty Distinguished Lecture Series

Speaker: Professor Gregory C. Fu
Norman Chandler Professor of Chemistry
Department of Chemistry and Chemical Engineering
California Institute of Technology

Title: Nucleophilic Substitution Reactions: A Radical Alternative to S_N1 and S_N2 Reactions

<< Abstract >>

Classical methods for achieving nucleophilic substitutions of alkyl electrophiles (S_N1 and S_N2) have limited scope and are not generally amenable to enantioselective variants that employ readily available racemic electrophiles. In this presentation, we will describe how the combination of radical chemistry and transition-metal catalysis has opened the door to addressing the challenges of reactivity and of enantioselectivity in nucleophilic substitution reactions of secondary and tertiary alkyl electrophiles.

Date: March 25, 2019 (Monday)

Time: 4:30 p.m.

Venue: L1, Institute of Chinese Studies

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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 Chien-Hong Cheng
Department of Chemistry
National Tsing Hua University
Taiwan

Title: Metal-Catalyzed C-H Functionalization for the Direct Synthesis of Pyridinium-Type Compounds and Their Application

Date: March 27, 2019 (Wednesday)

Time: 4:30 p.m.

Venue: L1
Science Centre

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Contact Person:
Prof. Henry N.C. Wong

香港中文大學
院士講座系列

The 8th Lecture Series by Academia Sinica Academicians
第八屆中央研究院院士講座系列

Jointly Organized by
Department of Chemistry and Office of Academic Links (China)

Speaker: **Professor Chien-Hong Cheng, Division of Mathematics and Physical Sciences, Academia Sinica**
中央研究院數理科學組　鄭建鴻院士

Title: **Metal-Catalyzed C-H Functionalization for the Direct Synthesis of Pyridinium-Type Compounds and Their Application**

Date: **Wednesday, 27 March 2019**

Time: **16:30 – 18:00**

Venue: **L1, Science Centre**

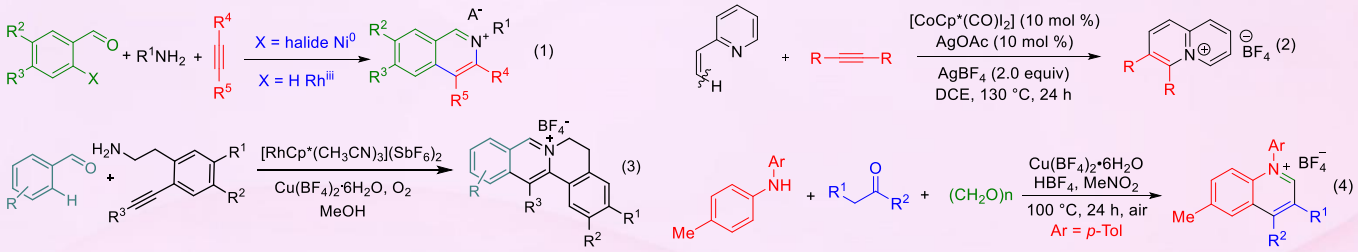
Registration: **http://www.cuhk.edu.hk/oalc/as_2019/**

Speaker's Resume

Chien-Hong Cheng, University of Rochester, Ph.D., (1978), Professor of Chemistry, National Tsing Hua University (1984), Chairman, Department of Chemistry, NTHU (1990–93), Director General, Department of Natural Sciences, National Science Council, Taiwan (2006–09), Senior Vice President for Academic Affairs, NTHU (2010~2014), President, Chemical Society Located in Taipei (2011–2012). He has received several awards including Outstanding Research Award of National Science Council (1988, 1991 and 1994); Chinese Culture and Academic Foundation Award (1993); Fellow of National Science Council (1995–2001); Chemical Society (Taiwan) Award (2001); Ministry of Education Science Award (2002); Chair Professor, National Tsing Hua University (2003-); National Chair Professor (2004, 2009), Ministry of Education; Fellow of Royal Society of Chemistry (2009); Hou Chin-Dwei Foundation Outstanding Achievement Award (2010), JSPS Lectureship Award (2012) , Professor Chau-Ting Chang Memorial Lectureship (2013), TECO Award (2014), Y.Z. Hsu Scientific Award (2016), The 32rd list Academician of Academia Sinica (2018). Research Interests: (I) Transition metal-catalyzed organic reactions. (II) Electroluminescent materials and devices.

Metal-Catalyzed C-H Functionalization for the Direct Synthesis of Pyridinium-Type Compounds and Their Application

Quaternary ammonium salts and their derivatives are found in many natural products and are known for their diverse biological activities including antimalarial, anti-arrhythmic, antitumor, inhibitory, antileukemia, antibacterial, anti-inflammatory, and cytotoxicity. However, almost no direct methods are known for the synthesis of the salts. We have developed several methods for the synthesis of a wide range of quaternary ammonium salts using transition metal complexes as the catalysts. Earlier, we observed a nickel-catalyzed regioselective synthesis of substituted isoquinolinium halides from o-halobenzaldehydes, amines and alkynes in an atom economy fashion (eq 1). The isoquinolinium salts can be readily converted to the corresponding isoquinolones for further applications. Next, we employed benzaldehydes, amines and alkynes via Rh(III)- or Co(III) catalyzed C-H activation to make similar isoquinolinium salts (eqs 2 and 3). Some natural products can be readily prepared by the catalytic reactions. Very recently, we used Cu(II) salt and dioxygen as the oxidizing catalyst and reagent for the synthesis of quinolinium salts from anilines, aldehydes and ketone (or alkynes) and an acid (see eq 4).



Language: Mandarin / English

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Enquiries: 394-34412 / 39947

For favour of posting

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

Speaker: Prof. Tiger H. Tao
State Key Laboratory of Transducer Technology
Shanghai Institute of Microsystem and Information Technology
CAS

Title: The perfect marriage of bioelectronics and biomaterials via advanced manufacturing

Date: March 28, 2019 (Thursday)

Time: 2:30 p.m.

Venue: Room C4, Lady Shaw Building

< Abstract >

A paradigm shift for implantable medical devices lies at the confluence between regenerative medicine, where materials remodel and integrate in the biological milieu, and technology, through the use of recently developed material platforms based on biomaterials and bioresorbable technologies such as optics and electronics. The union of materials and technology in this context enables a class of biomedical devices that can be optically or electronically functional and yet harmlessly degrade once their use is complete. The talk will discuss the use of silk protein as a sustainable material in transient optics and photonics, electronics and optoelectronic applications. The favorable properties of the material certainly make a favorable case for the use of silk, yet serve as a broad inspiration to further develop biological foundries for both the synthesis and processing of Nature's materials for high technological applications.

Prof. Tiger H. Tao received his Ph.D. in Mechanical Engineering with the Best Dissertation Award from Boston University, in 2010. His research interests have mainly focused on terahertz metamaterials using MEMS technology. After graduation, Dr. Tao joined the Department of Biomedical Engineering at Tufts University as a Postdoctoral Associate and then as a Research Assistant Professor. He is currently a Professor at Shanghai Institute of Microsystem and Information Technology, CAS and his research interests focus on green nanotechnology, micro/nano- technology enhanced novel electronic and photonic devices for biomedical applications. Dr. Tao has published over 60 papers in peer-reviewed scientific journals including Science (cover), Nature, Nature Photonics (cover), Nature Nanotechnology (cover), Nature Communications, PNAS, Advanced Materials (cover), Small (cover) and Physical Review Letters.

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Contact Person:
Prof. To Ngai