Scientific Program of the 3rd EOC Symposium

Transition Metal Catalysis for Organic Synthesis

[17 talks, 35 minutes for each speaker]

Thursday, July 14, 2016

12:00 - 17:00 **Registration** and check in
(爱大会馆 AiDa Hotel, inside Balitai Nankai campus)

18:00 - 20:00 **Banquet**
(汇高酒店 Huigao Garden Hotel, outside of campus)

Friday, July 15, 2016

8:00 - 8:10 **Opening Remarks** by Prof. Qi-Lin Zhou
(Dean of Chemistry College, Nankai University)

Location: 4th floor, building A, Lianhelou

天南联合楼A座四楼报告厅

Invited Lectures（IL01-IL17）

Session I. Chair: *Bing-Tao Guan*

8:10 - 8:45 **Shengming Ma** (Fudan University & SIOC, China)
IL01: Enantioselective Construction of Axially Chiral Allenes

8:45 - 9:20 **Jianbo Wang** (Peking University, China)
IL02: Recent Advances in Carbene-Based Coupling Reactions

9:20 - 9:55 **Jonathan Ellman** (Yale University, USA)
IL03: C-H Functionalization for the Efficient Assembly of Heterocycles and Amines

9:55 - 10:25 **Coffee Break** (& conference picture and posters setup)

Session II. Chair: *Mengchun Ye*

10:25 - 11:00 **Naoto Chatani** (Osaka University, Japan)
IL04: Chelated-Assisted Functionalization of C-H Bonds

11:00 - 11:35 **Yong Tang** (SIOC, China)
IL05: Methylene Manolate-Based Reactions

11:35 - 12:10 **Yong-Qiang Tu** (Lanzhou University & Shanghai Jiaotong University, China)
IL06: Rearrangement Reaction and Application to Natural Product Synthesis

12:20 - 14:00 **Lunch** (谊园餐厅 Yiyuan Restaurant)

Session III. Chair: *Xiaochen Wang*

14:00 - 14:35 **Yian Shi** (Nanjing University, China)
IL07: Catalytic Selective C-X Bond Formation

14:35 - 15:10 **Igor Larrosa** (University of Manchester, UK)
IL08: Pd, Ag and Au in C-H Activation: Reactivity and Selectivity Control in the Synthesis of Biaryls

15:10 - 15:45 **Magnus Rueping** (RWTH Aachen University, Germany)
IL09: Visible Light Driven Catalysis - Concepts and Applications

15:45 - 17:00 **Poster Exhibitions**

Session IV. Chair: *Pingping Tang*

17:00 - 17:35 **Tomislav Rovis** (Colorado State University, USA)
IL10: Rh(III) Catalysis for C-H Activation

17:35 - 18:10 **Erik Alexanian** (University of North Carolina, Chapel Hill, USA)
IL11: Catalytic C–C Formations Using Alkyl Halides

18:30 - 20:00 **Dinner** (谊园餐厅 Yiyuan Restaurant)

20:30 - 22:00 **Cruise Tour on Haihe River**
(gathering for bus in front of Yiyuan Restaurant)

Saturday, July 16, 2016

Session V. Chair: *Shou-Fei Zhu*

8:00 - 8:35 **Xumu Zhang** (South University of Science and Technology, China)
IL12: From Innovative Ligands to Commercial Manufacture

8:35 - 9:10 **Lutz Ackermann** (Georg-August-Universitaet Goettingen, Germany)
IL13: Ruthenium(II)-Catalyzed C–H Activation and Beyond

9:10 - 9:45 **Matthew Sigman** (Utah University, USA)
IL14: Bringing Modern Data Analysis Tools to Prediction in Catalyst Discovery

9:45 - 10:05 **Coffee Break**

Session VI. Chair: *Guangxin Liang*

10:05 - 10:40 **Kenichiro Itami** (Nagoya University, Japan)
IL15: Creation of Molecular Nanocarbons by C-H Functionalization

10:40 - 11:15 **Zhi-Xiang Yu** (Peking University, China)
IL16: Versatile Vinylcyclopropanes in Synthesizing Ring Compounds

11:15 - 11:50 **Qi-Lin Zhou** (Nankai University, China)
IL17: Catalytic Asymmetric Hydrogenation and Kinetic Resolution

11:50 - 12:10 **Closing Remarks**

12:20 - 14:00 **Lunch** (谊园餐厅 Yiyuan Restaurant)

14:00 **City Tour** (optional)

Invited Posters (IP01-IP11)

IP01: When Isocyanide Chemistry Meets Silver Catalysis
Xihe Bi (*Northeast Normal University*)

IP02: The Palladium-Catalyzed MCRs of CO_2 Towards 2-Quinolinone
Jiang Cheng (*Changzhou University*)

IP03: New Catalytic Reactions Directed by a Novel Cyclometalated Pd(II) Complex
Hanmin Huang (*University of Science of Technology of China*)

IP04: Palladium-Catalyzed Enantioselective Heck Arylation of Indoles and Ketones
Yi-Xia Jia (*Zhejiang University of Technology*)

IP05: Free-radical Promoted C-C/Si Formation via Selective C-H/Si-H Functionalization
Zhong-Quan Liu (*Lanzhou University*)

IP06: Catalytic Transformations of Phenol-Derived Biaryls by Using a Cooperative C–H Activation/Dearomatization Strategy
Xinjun Luan (*Northwest University*)

IP07: PIP Auxiliary in C–H Functionalization: Mechanistic Studies and Synthetic Applications
Bing-Feng Shi (*Zhejiang University*)

IP08: Ligand Development for Green Synthesis of Chiral Drugs and Natural Products
Wenjun Tang (*Shanghai Institute of Organic Chemistry*)

IP09: Manganese-Catalyzed Transformations of Inert C–H Bonds
Congyang Wang (*Chinese Academy of Sciences*)

IP10: NHC-Catalyzed Enantioselective Synthesis of Atropisometric Pyranones
Jian Wang (*Tsinghua University*)

IP11: Synthetic Application via Visible Light-Promoted Nitrogen-Centered Radicals
Shouyun Yu (*Nanjing University*)

Posters (P01-P32)

P01: Cu(I)-Catalyzed Hydroamination Cyclization of Homopropargylic Amine and Freidel-Crafts Alkylation with Indole
Hao Chen, Lingyan Liu*, Weixing Chang and Jing Li*

P02: Systemic Acquired Resistance Based Novel Pesticide Development for Plant Protection
Lai Chen, Yu-Jie Zhu, Xiao-Feng Guo, Xiao-lin Qian, Liu-Yong Ma, Nai-Lou Zhang, Hai-Xia Wang, and Tetyana V. Beryozkina, Vasiliy A. Bakulev and Zhi-Jin Fan*

P03: Benzo[a]carbazole-Functionalized Zn Porphyrin Donor–π–acceptor Dyes for Efficient Dye-sensitized Solar Cells
Huan-Huan Gao, Xing Qian, Wen-Ying Chang, Yi-Zhou Zhu and Jian-Yu Zheng*

P04: Synthesis of Conjugated Polycyclic Molecules by Rh-Catalyzed Multiple C-H Activation and Annulation Reactions
Qingmei Ge, Bin Li and Baiquan Wang*

P05: AgSbF6-Catalyzed Intramolecular Difunctionalization of Alkynes to Afford Structurally Diverse 2,3-Fused Indoles
Yuanqiong Huang, Yan Yang, Hongjian Song, Yuxiu Liu and Qingmin Wang*

P06: Sequential Domino Annulation Reactions: Highly Efficient Strategy for the Construction of Polycyclic Skeletons
Penghao Jia, Erqing Li, Jie Zheng, Ling Liang, Hongxia Zhao and You Huang*

P07: Photoredox-Mediated Minisci C-H Alkylation of N-Heteroarenes Using Boronic Acids and Hypervalent Iodine
Guoxing Li, Cristian A. Morales-Rivera, Yaxin Wang, Fang Gao, Gang He, Peng Liu* and Gong Chen*

P08: Chiral Phosphine-Catalyzed Asymmetric [4+1] Annulation of Polar Dienes with Allylic Carbonates: Highly Enantioselective Synthesis of Substituted Cyclopentenes
Hanyuan Li, Jiesi Luo and Zhengjie He*

P09: Two Zn^{II} and Cd^{II} Complexes Based on Tetrazole-heterocyclic Ligand Accompanied by in situ Ligand Formation
Qin Li, Tong-Liang Hu and Xian-He Bu*

P10: Hydroamination Cyclization-Povarov Cascade Reactions of Homopropargylic Amine with Electron-rich Olefins
Qiangqiang Liu, Lingyan Liu*, Weixing Chang and Jing Li*

P11: Stereoselective Synthesis of α-Amino(phenyl)menthol(phenyl)-phosphinic via a Double Chiral Auxiliary Approach
Shuang Liu and Zhiwei Miao*

P12: Efficient Bifunctional Catalysis for Incorportion of Atmospheric CO_2 into Heterocycles
Xi Liu, Mei-Yan Wang and Liang-Nian He*

P13: Synthesis of an Iron Silylidene Complex and Its Catalytic Application for Hydrosilylation of Ketones and Aldehydes under Solvent-Free Conditions
Ke Lou, Xingchao Fan, Haiyan Cui and Chunming Cui*

P14: Encapsulation of Platinum in Fullerenes: Is that Possible?
Lei Mu, Shumei Yang and Xianglei Kong*

P15: Silylene-Cobalt-Catalyzed Selective Borylation of Heteroarenes, CF_3 and F-Substituted Arenes by Direct C–H Bond Activation
Hailong Ren, Yunping Bai and Chunming Cui*

P16: Enantioselective Copper-Catalyzed Intramolecular N–H Bond Insertion: Synthesis of Chiral 2-Carboxy Tetrahydroquinolines
Yuan-Yuan Ren, Xiao-Guang Song, Shou-Fei Zhu* and Qi-Lin Zhou*

P17: Mild Oxidation of Functionalized Pyrrolidines to γ -Lactams by p-Benzoquinones
Hao-Jie Rong, Yong-Feng Cheng, Fan-Fan Liu, Shu-Jian Ren and Jin Qu*

P18: Tetraphenylphosphonium Tetrafluoroborate/1,1,1,3,3,3-hexafluoroisopropanol (Ph_4PBF_4/HFIP) Effecting Efficient Epoxide-Initiated Cation-Olefin Polycyclizations
Yan Tian and Jin Qu*

P19: Antifungal Agents Targeting Acetohydroxyacid Synthase
Li Wang, Yu-Ting Lee, Chang-Jun Cui, James A. Fraser, Luke W Guddat and Jian-Guo Wang*

P20: Copper-Catalyzed Trifluoromethylation and Bicyclizations of 1,7-Enyne Leading to Fused Polycycles
Qiang Wang, Hongjian Song, Yuxiu Liu, Haibin Song, and Qingmin Wang*

P21: A Visible-Light-Promoted Radical Reaction System for Azidation and Halogenation of Tertiary Aliphatic C−H Bonds
Yaxin Wang, Guoxing Li, Guohui Yang, Gang He and Gong Chen*

P22: Nickel-Catalyzed Hydroacylation of Styrenes with Simple Aldehydes: Reaction Development and Mechanistic Insights
Li-Jun Xiao, Xiao-Ning Fu, Min-Jie Zhou, Jian-Hua Xie, Li-Xin Wang, Xiu-Fang Xu* and Qi-Lin Zhou*

P23: Rhodium-Catalyzed Annulation of Tertiary Aniline N-Oxides to N-Alkylindoles: Regioselective C−H Activation, Oxygen-Atom Transfer, and N-Dealkylative Cyclization
Hong Xu, Huanan Wang, Baiquan Wang and Bin Li*

P24: Transition-Metal-Free Oxidative Fluorination of Alkylsilanes by Fluoride Ions
Peng Xu, Feng Wang, Guilan Fan, Xiufang Xu* and Pingping Tang*

P25: The Annulation Reaction of Spiro-Oxindolyl Nitrocyclopropanes with Huisgen Zwitterions: Facile Access to Pyrazolo[3,4-b]indoles
Changjiang Yang, Zijian He and Zhengjie He*

P26: Structures of Hydrated Lanthanum Oxide Ions in the Gas Phase: Investigated by IRPD Spectroscopy and Theoretical Calculations
Shumei Yang, Ruxia Feng, Lei Mu and Xianglei Kong*

P27: Palladium and Nickel-Catalyzed Hydrocarboxylation of Alkynes with Formic Acid
Feng-Hua Zhang, Jing Hou, Ming-Lei Yuan, Jian-Hua Xie and Qi-Lin Zhou*

P28: An Efficient Approach to Construct Spirocyclicrhodanine Derivatives via Phosphine-catalyzed [3+2] Cycloaddition or One-pot Sequential [3+2]/[3+2] Cycloaddition
Jiayong Zhang and Zhiwei Miao*

P29: Palladium-Catalyzed β-C(sp^3)−H Arylation of Phthaloyl Alanine with Hindered Aryl Iodides: Synthesis of Complex β-Aryl α-Amino Acids
Xuekai Zhang, Gang He and Gong Chen*

P30: Iron-Catalyzed Regioselective Transfer Hydrogenative Couplings of Unactivated Aldehydes with Simple Alkenes
Yanlong Zheng and Mengchun Ye*

P31: Enantioselective Total Synthesis of (−)-Hamigeran B and (–)-4-Bromohamigeran B
Min-Jie Zhou, Han Lin, Li-Jun Xiao, Hong-Ming Yu, Jian-Hua Xie* and Qi-Lin Zhou*

P32: Silver(I)-Catalyzed Thermodynamically Favorable Conversion of Carbon Dioxide Under Mild Conditions
Zhi-Hua Zhou, Qing-Wen Song and Liang-Nian He*