Scientific Program

Oct. 20th Thursday

DuoGongNeng Hall of Conference Center

| Opening | 15:20-15:25 | Welcome Address by the President of Beijing University of Chemical and Technology |
|--|-------------|---|
| Ceremony Chair: | 15:25-15:30 | Opening Address by the Director of Department of Organic Chemistry of National Science Foundation of China |
| Prof. Jun Nie (The Dean of College of Science) | 15:30-15:35 | Opening Address by the Dean of Shenzhen Graduate School of Peking University, Prof. Yundong Wu |
| | 15:35-15:40 | Opening Address by Prof. Michael B. Hall |

Group Photo

The Gate of Conference Center

DuoGongNeng Hall of Conference Center

| Keynote | | Yundong Wu | New Mechanistic Insights on the Selectivity of |
|---------|-------------|------------------------|--|
| Lecture | 16:00-16:45 | Shenzhen Graduate | Transition-Metal- Catalyzed Organic Reactions: The |
| Chair: | | School of Peking Univ. | Role of Computational Chemistry |
| Weihai | 16:45-17:30 | Zhenfeng Xi | Synthesis of Metallaaromatics from Dilithio Reagents |
| Fang | | Peking Univ. | and Low-Valent Metal Salts |

17:30-19:00 Dinner

The 3rd Floor of ZhaoDai Restaurant

DuoGongNeng Hall of Conference Center

| Invited Lecture | 19:00-19:30 | Djamaladdin G. Musaev <i>Emory Univ.</i> | Computational Insights in Complexity of Chemical Catalysis | | |
|----------------------------------|---------------------------------|---|--|--|--|
| Chair: Daniel A. Singleton | 19:30-20:00 | Decai Fang Beijing Normal Univ. | Pd Catalytic Reaction Mechanism: Directing Groups, Solvent and Oxidation State | | |
| | 20:00-20:15 Coffee Break | | | | |
| Invited Lecture | 20:15-20:45 | ShiLu Chen Beijing Inst. of Technology | How is Methane Formed and Oxidized Reversibly When Catalyzed by Ni-containing Methyl-Coenzyme M Reductase? | | |
| Chair: Wenhua Sun | 20:45-21:15 | Wenhong Yang Inst. of Chem., Chinese Academy of Science | Catalytic Activities of Transition Metal Complexes in Ethylene Oligo/Polymerization | | |

Oct. 21st Friday

DuoGongNeng Hall of Conference Center

| Keynote Lecture | 8:30-9:15 | Shigeyoshi Sakaki Kyoto Univ. | Crucial Role of Lewis Acid in Enhancing Reactivity of Organometallic Complex | | |
|-------------------------|---------------------------------|---|---|--|--|
| Chair: Yundong Wu | 9:15-10:00 | Fahmi Himo Stockholm Univ. | Quantum Chemical Modeling of Mechanisms and Selectivities in Homogeneous Catalysis | | |
| | 10:00-10:15 Coffee Break | | | | |
| Invited | 10:15-10:45 | Zhi-Xiang Yu Peking Univ. | Mechanism of [5+2+1] Reaction of Ene-Vinylcyclopropanes and Carbon Monoxide | | |
| Lecture Chair: | 10:45-11:15 | Evert Jan Meijer Univ. of Amsterdam | Modeling Catalytic Reactions in an Aqueous Environment | | |
| Jeremy Harvey; | 11:15-11:45 | Yu Lan Chongqing Univ. | Mechanistic Study of Organometallic Reactions Based on Density Functional Theory Calculations | | |
| Zhuofeng Ke | 11:45-12:15 | Agustí Lledós Univ. Autònoma de Barcelona | New Radical Pathways in Organometallic Reactions | | |

12:15-13:30 Lunch

The 3rd Floor of ZhaoDai Restaurant

DuoGongNeng Hall of Conference Center

| | 1 | | | |
|---------------------------------|-------------|---------------------------------|--|--|
| | 13:30-14:00 | ZhiXiang Wang Univ. of Chinese | Computational Developments of Strategies for H ₂ Activation and Hydrogenation: The Prediction Power | |
| Invited | 13.30 14.00 | Academy of Sciences | of Computations | |
| Lecture Chair: | 14:00-14:30 | Jeremy N. Harvey | Computational Modelling of the Kinetics of | |
| Feliu | 14.00 14.50 | KU Leuven | Homogeneous Catalysis: Progress and Challenges | |
| Maseras; | 14:30-15:00 | Jing Ma | Noncovalent Bond-mediated Reactions in Solutions | |
| Shixuan | 14.50 15.00 | Nanjing Univ. | Noncovalent Bona-mediated Reactions in Solutions | |
| Du | | Rong-Zhen Liao | Quantum Chemical Modeling of Water Oxidation | |
| | 15:00-15:30 | Huazhong Univ. of | Catalysis | |
| | | Science and Tech. | | |
| 15:30-15:45 Coffee Break | | | | |
| | 15:45 16:15 | Paul W. Ayers | Conceptual Tools for Noninnocent Ligands | |
| Invited | 15:45-16:15 | McMaster Univ. | Conceptual loois for Nonlinhocent Ligands | |
| Lecture | 16:15-16:45 | Ganglong Cui | DFT Studies on Photo-Induced Reactions Mediated by | |
| Chair: | 10.13-10.45 | Beijing Normal Univ. | Ruthenium- and Iridium-Containing Catalysts | |
| Agustí | | Feliu Maseras | How are the electrons transferred in oxidative | |
| Lledós; | 16:45-17:15 | The Barcelona Inst. of | | |
| | | Science and Tech. | coupling? | |

17:15-18:30 Dinner

The 3rd Floor of ZhaoDai Restaurant

DuoGongNeng Hall of Conference Center

| Invited | 18:30-19:00 | Siwei Bi Qufu Normal Univ. | Theoretical Rationalization of Kinetic Experimental Phenomena involved in Gold-Catalyzed Cyclization of 2-Alkynyl-N- Propargylanilines |
|--------------------------------|-------------|---|--|
| Lecture Chair: Evert Jan | 19:00-19:30 | Jiaxi Xu Beijing Univ. of Chem. Tech. | Chemoselectivity in the Copper-Catalyzed Reaction of Diazoacetamide Derivatives |
| Meijer | 19:30-20:00 | Xinhao Zhang Shenzhen Graduate School of Peking Univ. | A Combined IM-MS/DFT Study on the Role of N-Protected Amino Acid Ligand in Pd-Catalyzed C-H Activation |

20:00-21:30 **Poster Section**

DuoGongNeng Hall of Conference Center

Oct. 22nd Saturday

DuoGongNeng Hall of Conference Center

| 8:30-9:00 | Jun Li Tsinghua Univ. | Single-Atom Catalysis (SAC): Bridging Heterogeneous and Homogenous Catalysis |
|---|---|---|
| 9:00-9:30 | Jinlan Wang | Two-Dimensional Materials for Hydrogen Evolution |
| | Southeast Univ. | Reaction |
| | Shixuan Du | Functionalization of Noble-metal Surfaces for |
| 9:30-10:00 | Inst. of Phys., Chinese | |
| | Academy of Science | Hydrogen Dissociation |
| | 10:00-10:1 | 5 Coffee Break |
| | Zhenyang Lin | Carbon versus Carbon–Boron Coupling Reactions of |
| 10:15-10:45 | The Hong Kong Univ. | Primary, Secondary and Tertiary Alkyl Bromides |
| | of Science and Tech. | |
| | Raghavan B. Sunoj | Cooperative Asymmetric Dual Catalysis, Machanism |
| ir: 10:45-11:15 Kiang | Indian Inst. of Tech. | Cooperative Asymmetric Dual Catalysis: Mechanis |
| | Bombay | and Selectivity |
| | Ruiqin Zhang | Carbon and Carbon Nitride Quantum Dots for |
| kuan 11:15-11:45 City University Hong | City University Hong | , |
| | Photoelectrochemical Applications | |
| 11:45-12:15 | Xinzheng Yang | Computational Design of Base Metal Complexes for |
| | Inst. of Chem., Chinese | Catalytic Hydrogenation of Carbon Dioxide |
| | Academy of Science | |
| | 9:00-9:30 9:30-10:00 10:15-10:45 10:45-11:15 | 8:30-9:00 Tsinghua Univ. 9:00-9:30 Jinlan Wang Southeast Univ. Shixuan Du 1nst. of Phys., Chinese Academy of Science 10:00-10:1 Zhenyang Lin The Hong Kong Univ. of Science and Tech. Raghavan B. Sunoj Indian Inst. of Tech. Bombay Ruiqin Zhang City University Hong Kong Xinzheng Yang Inst. of Chem., Chinese |

12:15-13:30 Lunch

The 3rd Floor of ZhaoDai Restaurant

DuoGongNeng Hall of Conference Center

| Invited Lecture Chair: Zhenyang Lin; Jing Ma | 13:30-14:00 | Daniel A. Singleton Texas A&M Univ. | Identification and Control of Dynamic Effects on Selectivity | |
|--|-------------|-------------------------------------|---|--|
| | 14:00-14:30 | Cunyuan Zhao Sun Yat-Sen Univ. | Theoretical Study on the Hydrolysis Mechanism of Phosphoesters Catalysed by Metal Complexes | |
| | 14:30-15:00 | Zexing Cao Xiamen Univ. | QM/MM Insight into the Importance of Nonchemical Steps in Enzymatic Catalysis | |
| | 15:00-15:30 | Shuhua Li Nanjing Univ. | Homolytic Cleavage of B-B Bond via the Cooperative Catalysis of Two Lewis Bases: Computational Design and Experimental Verification | |
| 15:30-15:45 Coffee Break | | | | |
| Keynote Lecture Chair: Jun Li | 15:45-16:30 | Michael B. Hall Texas A&M Univ. | Intriguing Aspects of Non-innocent Ligands in Transition Metal Complexes | |
| | 16:30-17:15 | Weihai Fang Beijing Normal Univ. | Mechanism of the Enantioselective Intramolecular Enone [2+2] Photocycloaddition Reaction Explored by the CASPT2//CASSCF calculation | |

18:00-20:30 Banquet

The 2nd floor of XianHeng Restaurant

Poster Awards and Conference Closing by Prof. Weihai Fang and Prof. Michael Hall