NSFC-BHKAEC Joint Symposium on Chemistry for New Frontiers

G/F, CYM Chemistry Building — **28 July 2019**
P2 & P3, CYM Physics Building — **29-31 July 2019**

Jointly Organized by:
National Natural Science Foundation of China (NSFC), Beijing-Hong Kong Academic Exchange Centre (BHKAEC), State Key Laboratory of Synthetic Chemistry, Department of Chemistry, The University of Hong Kong

NSFC-BHKAEC Joint Symposium on Chemistry for New Frontiers

28–31 July, 2019

Scientific Program

Sunday, 28 July 2019

Venue: Ground Floor Lobby, Chong Yuet Ming Chemistry Building, Department of Chemistry

14:00 – 18:00 Registration

18:00 – 20:00 Welcoming Reception

Monday, 29 July 2019

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building (Live)

Theatre P3, Chong Yuet Ming Physics Building (Video)

9:00 – 9:30 Opening Ceremony

Session 1 (Synthetic Chemistry)

Chair: Prof. Chi-Ming Che (The University of Hong Kong)

9:30 – 10:15 *Catalytic Alkane Functionalizations and Polyethylene Degradation*

Prof. Zheng Huang (Shanghai Institute of Organic Chemistry)

10:15 – 10:45 Coffee Break

Session 2A (Functional Materials)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Dr. Yufeng Wang (The University of Hong Kong)

10:45 – 11:15 *Nonporous Adaptive Crystals (NACs) for Separation and Adsorption*

Prof. Feihe Huang (Zhejiang University)

11:15 – 11:45 *Optical Manipulation for Functional Nanorobots*

Dr. Jinyao Tang (The University of Hong Kong)

11:45 – 12:15 *Engineering of Carbon and Silk Materials toward Flexible and Wearable Electronics*

Dr. Yingying Zhang (Tsinghua University)

Session 2B (Physical Chemistry and Computational Chemistry)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Prof. David Lee Phillips (The University of Hong Kong)

10:45 – 11:15 *Machine Learning for Resolving Global Potential Energy Surface and Predicting Catalysis*

Prof. Zhi-Pan Liu (Fudan University)

11:15 – 11:45 *Computational-Aided Design of New Energy Conversion Materials*

Prof. Jinlan Wang (Southeast University)

11:45 – 12:15 *Multi-Dimensional Characterizations of Small Molecule – DNA Interactions and Protein Folding by Single-Molecule Manipulation and Spectroscopy*

Dr. Jinqing Huang (The Hong Kong University of Science and Technology)

12:15 – 14:00 Lunch Break

Session 3A (Functional Materials)
Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Dr. Jinyao Tang (The University of Hong Kong)

14:00 – 14:30 *De Novo Design and Facile Synthesis of Covalent Organic Frameworks: A Two-in-One Strategy*
Prof. Long Chen (Tianjin Univeristy)

14:30 – 15:00 *Valleytronics in 2D Semiconductors*
Prof. Wang Yao (The University of Hong Kong)

15:00 – 15:30 *From Curved Polycyclic Aromatics to Electronic Materials*
Prof. Qian Miao (The Chinese University of Hong Kong)

Session 3B (Chemical Biology)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Dr. Xiang David Li (The University of Hong Kong)

14:00 – 14:30 *Chemical-Assisted Sequencing of Epigenetic Nucleic Acid Modifications*
Prof. Chengqi Yi (Peking University)

14:30 – 15:00 *Targeting the Roots of Hepatocellular Carcinoma by Exploiting Stemness as a Cancer Cell Vulnerability*
Dr. Stephanie Kwai-Yee Ma (The University of Hong Kong)

15:00 – 15:30 *Engineering DNA Nanostructures and Nanodevices for Drug Delivery System*
Prof. Baoquan Ding (National Center for NanoScience and Technology)

15:30 – 16:00 Coffee Break

Session 4A (Synthetic Chemistry)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Prof. Pauline Chiu (The University of Hong Kong)

16:00 – 16:30 *Water-Splitting Catalysts in Natural and Artificial Photosynthesis*
Prof. Chunxi Zhang (Institute of Chemistry, CAS)

16:30 – 17:00 *Controlled Functionalization of Carborane*
Prof. Zuowei Xie (The Chinese University of Hong Kong)

17:00 – 17:30 *Cooperative Copper(I)-Catalyzed Radical-Involved Asymmetric Reactions*
Prof. Xin-Yuan Liu (Southern University of Science and Technology)

17:30 – 18:00 *Remote Asymmetric Control in Organocatalysis*
Prof. Jianwei Sun (The Hong Kong University of Science and Technology)

Session 4B (Chemical Biology)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Dr. Xiaoyu Li (The University of Hong Kong)

16:00 – 16:30 *Uncovering Metallo-proteomics in Microbes: Novel Way to Overcome Antimicrobial Resistance?*

Prof. Hongzhe Sun (The University of Hong Kong)

16:30 – 17:00 *When Chemistry Meets Epigenetics: Chemical Approaches to Decipher Histone Modifications*

Dr. Xiang David Li (The University of Hong Kong)

17:00 – 17:30 *Towards Synthetic Biologics*

Prof. Xuechen Li (The University of Hong Kong)

17:30 – 18:00 *Enzyme-Catalysed [6+4] Cycloadditions in the Biosynthesis of Natural Products*

Prof. Huiming Ge (Nanjing University)

Close of the First Day

Tuesday, 30 July 2019

Session 5 (Chemical Biology)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building (Live)

Theatre P3, Chong Yuet Ming Physics Building (Video)

Chair: Dr. Xiaoyu Li (The University of Hong Kong)

9:30 – 10:15 *Novel Fluorescent Probes for Detection and Molecular Imaging of Reactive Oxygen Species*

Prof. Dan Yang (The University of Hong Kong)

10:15 – 10:45 Coffee Break

Session 6A (Synthetic Chemistry)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Prof. Pauline Chiu (The University of Hong Kong)

10:45 – 11:15 *Chemical Reactions under High Pressure*

Prof. Kuo Li (Center for High Pressure Science & Technology Advance Research)

11:15 – 11:45 *Axial Chirality Chemistry: Asymmetric Catalysis and Applications*

Prof. Bin Tan (Southern University of Science and Technology)

11:45 – 12:15 *Catalytic CO_2 Reduction Based on Earth-Abundant Metal Complexes*

Prof. Tai-Chu Lau (City University of Hong Kong)

Session 6B (Functional Materials)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Prof. Dan Li (Jinan University)

10:45 – 11:15 *Synthesis and Characterizations of Graphdiyne and its Derivatives*
Prof. Yongjun Li (Institute of Chemistry, CAS)

11:15 – 11:45 *Active Patchy Colloids with Shape-Tunable Dynamics*
Dr. Yufeng Wang (The University of Hong Kong)

11:45 – 12:15 *Fluorooxoborates: Novel Candidates for Deep-UV Nonlinear Optical Materials*
Prof. Shilei Pan (Xinjiang Technical Institute of Physics & Chemistry, CAS)

12:15 – 14:00 Lunch Break

14:00 – 15:30 Poster Session

15:30 – 16:00 Coffee Break

Session 7 (Functional Materials)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building (Live)
Theatre P3, Chong Yuet Ming Physics Building (Video)

Chair: Prof. Dan Li (Jinan University)

16:00 – 17:00 *Meeting with NSFC Representatives*

17:00 – 17:45 *From Simple Discrete Metal-Ligand Motifs to Supramolecular Assembly, Nanostructures and Functions*
Prof. Vivian Wing-Wah Yam (The University of Hong Kong)

Close of the Second Day

Wednesday, 31 July 2019

Session 8A (Synthetic Chemistry)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Dr. Edmund Chun-Ming Tse (The University of Hong Kong)

9:30 – 10:00 *Artificial Photosynthesis for Chemical Transformation*
Prof. Li-Zhu Wu (Technical Institute of Physics and Chemistry, CAS)

10:00 – 10:30 *Zwitterion-Catalyzed Halogenation Reactions*
Prof. Ying-Yeung Yeung (The Chinese University of Hong Kong)

Session 8B (Physical Chemistry and Computational Chemistry)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Prof. Jinqing Huang (The Hong Kong University of Science and Technology)

9:30 – 10:00 *Multiscale Simulation of Graphene Growth on Metal Surfaces*

Prof. Zhenyu Li (University of Science and Technology of China)

10:00 – 10:30 *Ultrafast Time-Resolved Spectroscopic Studies of the Photophysics and Photochemistry of New Materials for Applications in Biology, Chemistry and Medicine*

Prof. David Lee Phillips (The University of Hong Kong)

10:30 – 11:00 Coffee Break

Session 9A (Functional Materials)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Dr. Jinyao Tang (The University of Hong Kong)

11:00 – 11:30 *Two-Dimensional Covalent Organic Frameworks with Hierarchical Porosities*

Prof. Xin Zhao (Shanghai Institute of Organic Chemistry, CAS)

11:30 – 12:00 *Studies on Complex Supramolecular Assembly Behaviours of Functional Pi-conjugated Molecules*

Prof. Dahui Zhao (Peking University)

12:00 – 12:30 *Photo-activated Phosphorescence of Organometallic Complexes*

Dr. Wei Lu (Southern University of Science and Technology)

Session 9B (Physical Chemistry and Computational Chemistry)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Prof. David Lee Phillips (The University of Hong Kong)

11:00 – 11:30 *Coherent Real-space Charge Transport in Organic Solar Cells*

Prof. Guanhua Chen (The University of Hong Kong)

11:30 – 12:00 *Constructing Markov State Models to Elucidate the Functional Conformational Changes of Complex Biomolecules*

Prof. Xuhui Huang (The Hong Kong University of Science and Technology)

12:00 – 12:30 *Computational Exploration of Chemical Reactions and Molecular Interactions: From Organic Molecules to Metal-Organic Frameworks*

Dr. Hajime Hirao (City University of Hong Kong)

12:30 – 14:00 Lunch Break

Session 10A (Physical Chemistry and Computational Chemistry)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building

Chair: Prof. Xuhui Huang (The Hong Kong University of Science and Technology)

14:00 – 14:30 *Trajectory-Based Approaches for Quantum Statistics and Dynamics of Nonadiabatic System*

Prof. Jian Liu (Peking University)

14:30 – 15:00 *First-principles Studies of Dissolved Carbon in Supercritical Aqueous Fluids: Reactions and Raman Spectroscopy*

Prof. Ding Pan (The Hong Kong University of Science and Technology)

15:00 – 15:30 *Recent Development of State-to-State Quantum Reactive Scattering Theory*

Prof. Zhigang Sun (Dalian Institute of Chemical Physics, CAS)

Session 10B (Chemical Biology)

Venue: Lecture Theatre P3, Chong Yuet Ming Physics Building

Chair: Prof. Hongzhe Sun (The University of Hong Kong)

14:00 – 14:30 *Drugging the Undruggable: Biomimetic Chemical Intervention Based on PTMs*

Prof. Cheng Luo (Shanghai Institute of Materia Medica, CAS)

14:30 – 15:00 *DNA-Encoded Library and its Applications*

Dr. Xiaoyu Li (The University of Hong Kong)

15:00 – 15:30 *Pharmacological Validation of Untargeted Kinases with Small Molecules*

Prof. Xianming Deng (Xiamen University)

15:30 – 16:00 *Developing Fluorescent Probes and Peptide-based Materials for Biological Applications*

Dr. Hongyan Sun (City University of Hong Kong)

16:00 – 16:30 Coffee Break

Session 11 (Physical Chemistry and Computational Chemistry)

Venue: Lecture Theatre P2, Chong Yuet Ming Physics Building (Live)

Theatre P3, Chong Yuet Ming Physics Building (Video)

Chair: Prof. Xuhui Huang (The Hong Kong University of Science and Technology)

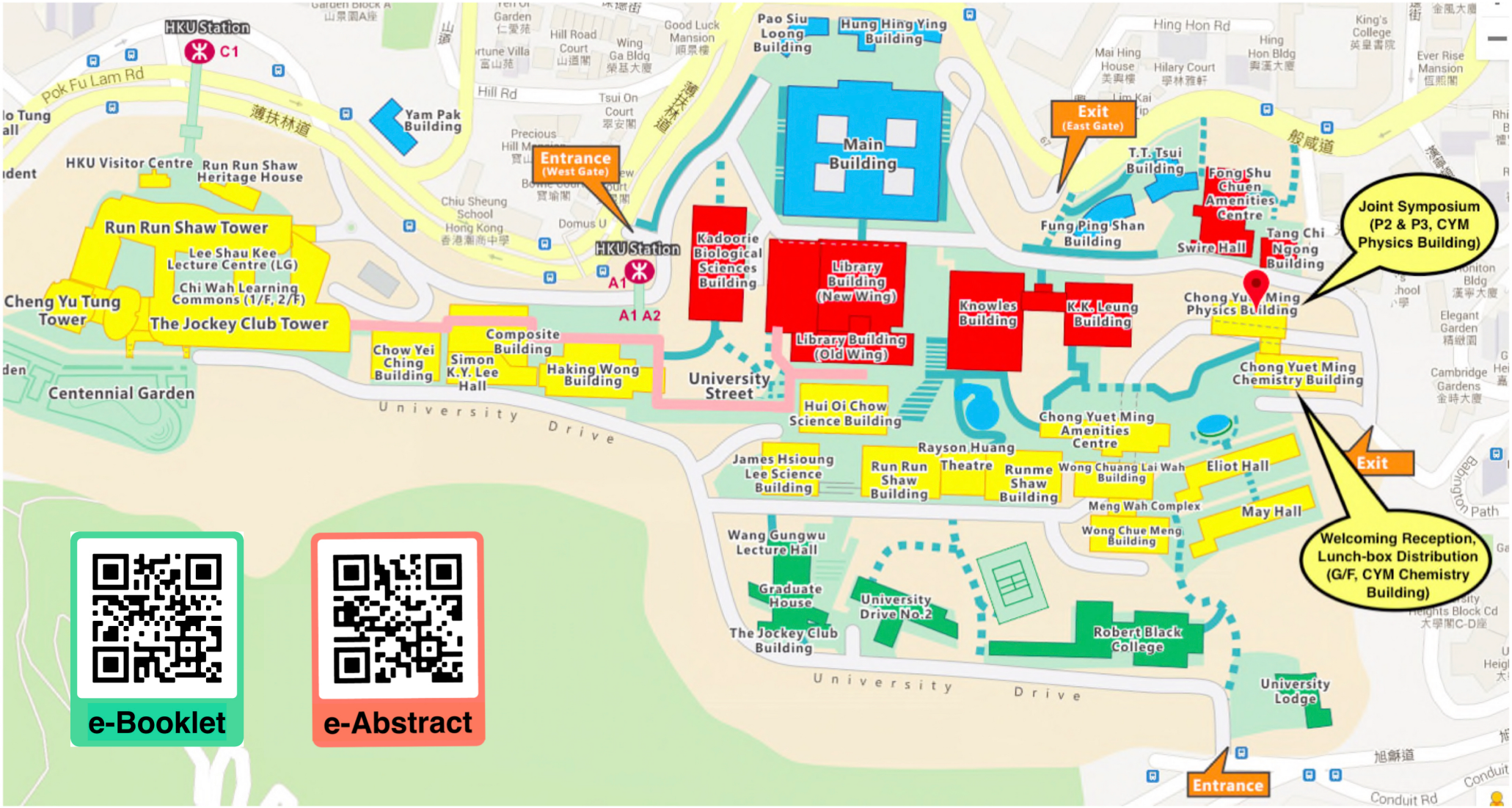
16:30 – 17:15 *Mediating Surface Reactions with Molecular Assembly Strategy*

Prof. Kai Wu (Peking University)

17:30 – 17:45 Closing Remarks: Prof. Chi-Ming Che (HKU)

Close of the Symposium

HKU Campus Map



Wifi Network: Wi-Fi.HK via HKU (No password needed)

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