(Young Scholar's Forum, Sep, 25th, 2020)

School of Chemistry and Chemical Engineering

Time: 8:20a.m.–11:20a.m., Sep, 25th, 2020
Venue: Room 405, Shaw Engineering Building, Wushan Campus

Announced by School of Chemistry and Chemical Engineering

Agenda:

8:20a.m.–8:30a.m. Opening ceremony: speech by Dean Zhengguo Zhang

8:30 a.m.- 11:20a.m.

Title1: Developing novel materials for high temperature proton exchange membrane fuel cell

Speaker：Dr. Yi Cheng

Title2: Investigation on the enhanced heat and mass transfer performance of liquid desiccant air-dehumidification technology.

Speaker：Dr. Chuanshuai Dong

Title3: Controllable synthesis of photocatalytic materials with high efficiency and their catalytic application in heterogeneous catalysis

Speaker：Dr. Tingting Hou

Title4: An investigation into the development of efficient catalytic materials for deNOx and deSOx applications

Speaker：Dr. Liam John France

Title5: Efficiently Catalytic Conversion of Lignin to chemicals

Speaker：Dr. Zhenping Cai

Title6: The Application of the Fix-potential Method in the Electrochemical Reactions Simulation

Speaker：Dr. Guoping Gao

Title7: Merging Photoredox with Boron & Gold-Catalyzed Alkyne Cascade Reactions

Speaker：Dr. Chao Shu

Title8: Porous Metal-Organic Frameworks: Rigid and Soft Pores

Speaker：Dr. Yong Yan

Title9: Main-Group Elements Joining Hands with Transition Metals

Speaker：Dr. Jiliang Zhou

Title10: The Potential Power of Plasmonic Hot Carriers: Reform the Catalytic Activity Trend of Transition Metal

Speaker：Dr. Linan Zhou

[Biography]

（1）Dr. Yi Cheng, got his Bachelor and Master degree in Environmental Engineering at Central South University, and received his PhD in Chemical Engineering at Curtin University in 2015 under supervision of Professor San Ping Jiang. He worked as a postdoctoral research fellow in Curtin University from Dec. 2014 to Nov. 2018. His researches are focus on functional materials for renewable energy storage and conversion with special attention on proton exchange membrane fuel cells, which include tuning the atom arrangement of nanoparticles, controlling the size to achieve high synergistic effect between the nanoparticles or nanoclusters with the functionalized agents, and further pushing the size to limited “size”-single atoms to achieve high catalytic performance for a number of reactions. He has published more than 50 refereed journal papers, of which 30 are first/corresponding-authored papers including 3 journal cover illustrations, 2 papers as the hot paper of J. Mater. Chem. A 2018/2016, and one paper was awarded as Shi Changxu Best Paper Award (International Union of Materials Research Societies). He has 12 papers with IF> 10, and 14 papers with IF>8 and 38 papers in Elsevier Q1 journals. The journal papers (first/corresponding-authored) are published in: Adv. Mater. (1), Adv. Sci. (1), Appl. Catal. B-Environ. (3), J. Mater. Chem. A (3), J. Power Sources (1), ACS Appl. Mater. Inter. (2), Chem. Comm., Small methods (1), Chem. Eur. J. (1), Electrochim. Acta (2), Bioresour. Technol. (1), Int. J. Hydrog. Energy (3), ChemCatChem (1), RSC Adv. (1), ChemElectroChem (1), Pro. Nat. SCI-Mater. (1), Energy & Environ. Mater. (1), ACS Appl. Energy Mater. (1), Chin. J. Nonferrous Met. (1). He also has 5 Chinese Patent on single atom synthesis. According to google scholar, my H-index is 22 with a total citation count of over 1500.

（2）Dr. Dong received his B.S. in Petroleum Engineering at China University of Petroleum in 2012 and obtained Ph.D. in Built Environment and Energy Engineering from the Hong Kong Polytechnic University, Hong Kong, China in 2018. From 2018.07 to 2018.12, he is a postdoctoral researcher at the Hong Kong Polytechnic University. From 2018.12 to present, he is a postdoctoral researcher at South China University of Technology with the supervisor of Prof. Zhang Lizhi. His research interest is the enhanced heat and mass transfer performance of liquid desiccant air-dehumidification technology. He has published 22 SCI papers (first author: 13 with 8 in JCR Top Journal). After joining SCUT, as PI, he has received 4 national and provincial research projects and 2 other project. He has also received the “Pearl River Talent Program”. The total amount of the funds is 1,560,000 RMB.

（3）Dr. Tingting Hou received her B.S. in chemistry at Zhengzhou University in 2013 and obtained Ph.D. in Organic Chemistry from Dalian Institute of Chemical Physics, Chinese Academy of Sciences in 2018. From 2018.10 to present, she is a postdoctoral researcher at Materials Physics, Central South University. Her research focuses on the interdisciplinary area across material science, chemistry, physicals, and engineering to develop superior photocatalysts based on defective oxides and plasmatic metals for photocatalytic conversion of CO2 and N2, as well as lignin. She has published 16 SCI papers (first author: 10). Her work on selective cleavage of C-C bond for lignin β-1 model has been selected as the American Chemical Society (ACS) Editors' Choice for May 10, 2017.

（4）Dr Liam John France received his BSc in Chemistry with a year in industry at Nottingham Trent University in 2006 and obtained his PhD in Chemistry (Catalysis) from Glasgow University, United Kingdom in 2011. He has served as a post-doctoral researcher at Oxford University (2011-2015) before taking up a similar role at South China University of Technology in 2016. His research interests are largely focused upon understanding the fundamental aspects of heterogeneous catalysis, with a specific emphasis upon sustainable and environmental applications. To date, he has co-authored 20 SCI articles and 1 book chapter (First author: 6; Corresponding author: 3; Highly cited papers (30+): 3). In 2007, his work devoted toward the development of novel zeolite-organic hybrid catalysts was awarded a poster prize at an internationally attended British Zeolite Association Conference.

（5）Dr. Cai received his B.S. in Chemical Engineering (Pharmaceutical Engineering) at Huaqiao University in 2010 and obtained Ph.D. in Chemical Engineering (Industrial Catalysis) from South China University of Technology in 2016. From 2018.10 to present, he is a postdoctoral researcher at Department of Chemical Engineering, Norwegian University of Science and Technology. His research interests are biomass catalytic conversion. He has published 12 SCI papers (first /corresponding author: 6; chem: 1). His work on catalytic conversion of lignin to diethyl maleate has been highlighted by GEE.

（6）Dr. Guoping Gao obtained Ph.D. in Energy & Process Engineering from Queensland University of Technology, Australia in 2017. From 2017.06 to present, he is a postdoctoral researcher at Lawrence Berkeley National Laboratory，USA. His research interests are engineering materials for clean energy conversion reactions and storage via first-principle calculation and fix-potential method development and application in electrochemical reactions simulation. He has published 47 SCI papers (first author: 20, journal cover papers: 1, ESI highly cited papers: 10). His work on single-atom catalyst for visible-light reduction of CO2 has been cited by 480 publications.

（7）Dr. Chao Shu received his B.S. in Anhui Normal University in 2011 and obtained Ph.D. in organic chemistry from Xiamen University in 2017. From 2017.09 to present, he is a postdoctoral researcher at School of Chemistry, University of Bristol. His research interests are visible-light photoredox catalysis and transition metal catalysis. He has published 30 SCI papers (first author: 17, ESI highly cited papers: 3).

（8）Dr. YAN Yong received his B.S. and Ph.D degrees both in chemistry from Lanzhou University in 2006, and the University of Nottingham in 2011, respectively. From December 2011 to present, he worked as a postdoctoral researcher at the University of Nottingham, the University of Manchester, and the University of Liverpool. His research interests are mainly focused on the frontiers of functional framework materials involving novel design and synthesis of new structures, structural characterisations from single-crystal and powder X-ray diffraction, in situ studies of substrate-loaded porous systems by a variety of advanced techniques such as synchrotron X-ray/neutron diffraction/scattering/spectroscopy methods, and catalysis applications. He has published 28 SCI papers (first author: 11, journal cover papers: 1, ESI highly cited papers: 2).

（9）Dr. Jiliang Zhou received his B.S. in Chemistry at Shandong University in 2010 and obtained Ph.D. in Organic Chemistry from Shanghai Institute of Organic Chemistry in 2015. From 2016.09 to present, he is a postdoctoral researcher in University of Toronto and Texas A&M University. His research interests are rare-earth metal complexes and unique Lewis acids. He has published 25 SCI papers (first author: 10, frontispieces: 1, journal cover papers: 4). His work on a phosphorus Lewis superacid has been highlighted by Chemistry World News.

（10）Dr. Linan Zhou received his B.S. in Chemistry at Peking University in 2012 and obtained his Ph.D. degree in Chemistry from Rice University, USA in 2018. From 2019.01 to 2019.03, he continued his postdoctoral research at Rice. His research interests are surface plasmon resonance (SPR) and related application, especially focusing on gas-solid heterogeneous plasmonic photocatalysts and fundamental understanding of hot-carrier-mediated chemistry and kinetics. He has published 21 SCI papers (first author: 4, ESI hot paper:1, ESI highly cited papers: 2). His work on quantifying the contribution of hot-carrier-mediated and thermal reaction in plasmonic photocatalysis received the Elsevier Reaxy PhD award and was reported by famous international media Deutsche Welle. He has an issued patent, which is licensed to venture fund startup company, Syzygy Plasmonics, and is under the process of commercialization. Since 2019.03, he joins Syzygy Plasmonics as the Chief Scientist and helps the company make significant development.