

## 第十一届国际介观结构材料研讨会

The 11th International Mesostructured Materials Symposium

# 会议程序册 Conference Program

Organization

International Mesostructured Materials Association

Dalian University of Technology

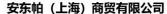
中国•大连 Dalian, China

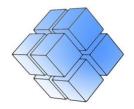
2021年9月5-8日 September 05-08, 2021



### 会议鸣谢







北京彼奥德电子技术有限公司



荷兰艾维 IVIUM 电化学工作站











北京英格海德分析技术有限公司





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#### Welcome

The International Mesostructured Materials Association (IMMA) and Dalian University of Technology (DUT), cordially invite you to participate in the 11<sup>th</sup> International Mesostructured Materials Symposium (IMMS-11). It is the first time in 15 years in China after IMMS-5 in Shanghai. The purpose of this innovative and comprehensive symposium is to introduce the latest research and development on science and applications of mesostructured materials.

IMMA was created by a decision of the International Advisory Board of the 2nd International Symposium on Mesoporous Molecular Sieves (ISMMS 2000), at the occasion of ISMMS 2000 held in Québec City. The IMMS series is the most influential international academic conference in the field of mesoscopic structural materials. The IMMS has greatly promoted the



communication and cooperation among researchers in the field of mesostructured materials.



DUT is the first formal university of a new type founded by the government on the eve of the founding of the People's Republic of China. DUT keeps fostering elites, promoting science and technology, inheriting excellent cultures and guiding the social climate as its mission, adheres to DUT spirit of "Unity and Progress, Truth and Innovation". DUT has formed a multi-disciplinary system which focuses on science and engineering and

coordinates science, engineering, etc. DUT dedicates itself to the creation, discovery, impart and application of knowledge, and endeavors to undertake social responsibilities to serve the country and the world.

I would like to take this opportunity to thank our speakers, sponsors, and volunteers all together to make this international symposium possible under the global and national COVID-19 travel restrictions. We look forward to an exceptional onsite and online gathering for sharing the cutting-edge advances at the frontiers of mesostructured materials research. We sincerely hope you enjoy the meeting with your colleagues, friends in the mesostructured materials community in-person or virtually - in 3D or in 2D in Dalian!

Warm regards,

Chair Person: An-Hui Lu

On behalf of the IMMS-11 Organizing Committee





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#### **About IMMS-11**

The IMMS-11 will be the first event that proceeds in hybrid form in IMMS history. Both the online and onsite programs is taking place at the scheduled time (September 05-08, 2021). The onsite venue is the International Finance Conference Center, Dalian, China. This IMMS-11 brings leading scientists and professionals from all over the world to facilitate communication and exchanges of the latest science and technology developments in the field of mesoscopic structural materials.



#### **Onsite IMMS-11**

IMMS-11 aims to showcase the latest progress in the field of mesoscopic structural materials, and to discuss the responsibilities, opportunities and challenges of mesoscopic functional materials in the new era of energy reform and sustainable development. The topics of the symposium covers all the aspects of mesostructured materials, including Materials Synthesis, Advanced Characterizations, Adsorption and Catalysis, Biology and Sensor, Energy Storage and Conversion, Mesostructured Materials and Beyond and Young Scientist Forum.

#### **Online IMMS-11**

Considering the special situations of COVID-19, scholars abroad and from high- or medium-risk areas in China cannot attend the onsite event. The organizing committee of the IMMS-11, working with our technical partner decided to adopt a hybrid of online and onsite programs to ensure that the symposium proceeds smoothly. For the virtual conference, all the presentations will be webcast to maximize the academic exchange under global COVID-19 influences.



#### **Committee**

#### **Organization**

International Mesostructured Materials Association Dalian University of Technology

#### Chair

An-Hui Lu (Dalian University of Technology)

#### **Secretary General**

Guang-Ping Hao (Dalian University of Technology)

#### **Session Chairs**

Materials Synthesis

Wei Li (Fudan University)

Ben Liu (Sichuan University)

**Adsorption and Catalysis** 

Ying Wan (Shanghai Normal University)

Pei Yuan (Fuzhou University)

**Materials Characterization** 

Yanhang Ma (Shanghai Tech University)
Jun Xu (Wuhan Institute of Physics and

Mathematics, CAS)

**Energy Storage and Conversion** 

Zhen-An Qiao (Jilin University)

Morgen Stefik (University of South Carolina)

**Biology and Sensor** 

Xiaomin Li (Fudan University) Yu Chen (Shanghai University)

Young Scientist Forum and Materials Beyond

Guang-Ping Hao (Dalian University of Technology)

Dong Gu (Wuhan University)

Jinwoo Lee (KAIST)

#### **Scientific Committee**

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Jianlin Shi (Shanghai Institute of Ceramics, CAS)

Xiaojun Peng (*Dalian University of Technology*)

Rong Cao (Fujian Institute of Research on the Structure, CAS)

Qiang Xu (Southern University of Science and Technology)

Jinping Li (*Taiyuan University of Technology*)

Shunai Che (Shanghai Jiao Tong University)

Zheng Hu (Nanjing University)

Weiguo Song (Institute of Chemistry, Chinese Academy of Sciences)

Feng-Shou Xiao (*Zhejiang University*)

Liqiang Mai (Wuhan University of Technology)

An-Hui Lu (Dalian University of Technology)

Peng Wu (East China Normal University)



Chunying Duan (Dalian University of Technology)

Zhiyong Tang (National Center for Nanoscience and Technology)

Xianfeng Li (Dalian Institute of Chemical Physics, CAS)

Wei Wang (Lanzhou University)

Ying Wan (Shanghai Normal University)

Qihua Yang (Dalian Institute of Chemical Physics, CAS)

Tierui Zhang (Technical Institute of Physics and Chemistry, CAS)

#### **International Advisory Board**

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Morgan Stefik (University of South Carolina)

Andreas Stein (University of Minnesota)

#### **Local Organizing Committee**

An-Hui Lu	Guang-Ping Hao	Lei He	Yun-Zhe Du
Xiao-Ling Dong	Wen-Duo Lu	Chen-Yu Liu	Rui-Jun Fan
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Shangru Zhai	Dongqi Wang	Yi Liu	Bingbing Sun
Qiang Fu	Yanqiang Huang	Aiqin Wang	Quan Shi
Ying-Ya Liu	Dehui Deng	Canghai Ma	De-Cai Guo
Yanhui Yi	Zhong-Shuai Wu	Jiaxu Liu	Rongfu Wen



### **Contact Information**

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### **Notice of Participation**

#### 主持人须知:

- 1. 主会场: 9月6日上午开幕式及大会报告,8日上午大会报告及闭幕式。
- 2. 分会场: 9月6日下午以及7日全天,根据主题征文情况,共设7个分会场。
- 3. 大会报告(Plenary-PLE)每场 35 分钟,提问 5 分钟;分会主题报告(Keynote-KN)每场 25 分钟,提问 5 分钟;邀请报告(Invited speaker-INV)每场 15 分钟,提问 5 分钟; 口头报告(Oral talk-O)每场 8 分钟,提问 2 分钟。

#### 参会人须知:

- 1. 本次会议所有报告全程网络转播,如报告人不同意线上转播,请提前告知会务组。
- 2. 为保证会场秩序和参会代表的安全,会议期间请您随身佩戴代表证。
- 3. 报告人请在报告开始前 20 分钟将 PPT 拷贝到会场计算机,如自带计算机,请提前 到演讲台调试。组委会承诺不复制并在报告后删除 PPT。
- 4. Poster 展区设置在 2 楼大厅, 展示时间为 9 月 7 日 15:00-19:00。
- 5. 本次会议设置"优秀报告奖"、"优秀墙报奖"、颁奖典礼在闭幕式上举行。
- 6. 在会场中,请将手机等通讯设备调至振动或静音,请勿大声喧哗,禁止吸烟。
- 7. 参会期间,请注意个人人身及财产安全,请勿携带易燃易爆危险物品进入会场。

#### 防疫须知:

在疫情特殊时期,请各位参会人员注意以下事项,并严格遵守防疫规则:

- 1. 来连前 72 小时,请扫描下方二维码填写线上防疫信息收集表。
- 2. 进入会场时需出示国务院行程码或者辽事通健康码, 并测量体温。
- 3. 开会期间,除主持人以及报告人外请全程佩戴口罩。
- 4. 会场门口放置应急口罩及消毒液,如有需要可联系现场的工作人员领取使用。
- 5. 14 天内有国内中高风险等疫情重点地区旅居史和接触史的报告人做线上报告。
- 6. 会议人员出现咳嗽、呼吸困难等不适症状或检测发现体温≥37.3°C,请立即联系会议负责人,启动应急处置,安排就医排查,并及时上报。



### **IMMS-11 Agenda**

Da	ate	Time			Content			
Sou	. 6	08:00-08:30			Welcome Speec			
Sep. 6 08:30-09:10 Joyous 09:40 09:50			PLE-1 Karen Edler					
Gothering 09:10-09:50					PLE-2 Jianlin SI			
	ace	10:20-11:00			PLE-3 Yusuke Y			
		11:00-11:40			PLE-4 Bao-Lian	Su	Otamana and	
Sess	ions	Materials Synthesis	Materials Characterization	Adsorption and Catalysis A	Adsorption and Catalysis B	Biology and Sensor	Energy Storage and Conversion	Young Scientist Forum
Loca	ation	Conference Chamber 8	Conference Chamber 9	Joyous Gathering Palace A	Joyous Gathering Palace B	Conference Chamber 7	International Conference Hall	Amphitheater 1
		KN-101 Shunai Che	KN-201 Junliang Sun (Online)	KN-301 Rong Cao	KN-311 Yanze Du	KN-401 Zhi Ping (Gordon) Xu (Online)	KN-501 Liqiang Mai	KN-601 Landong Li
		INV-101 Angang Dong	INV-201 Peng Guo	KN-302	KN-312	INV-401 Dalong Ni	, ,	INV-601
	14:00 I 15:40	INV-102 Zhangxiong Wu	INV-202 Yihan Zhu (Online)	Lin-Bing Sun	Yanqin Wang	INV-402 Jingjing Wan	INV-501 Dongliang Chao	Xuezhi Duan
		INV-103	O-201 Ningdong Feng	INV-301 You Han	INV-314 Fujian Liu	O-401 Jiefei Wang	INV-502 Pengfei Zhang	INV-602 Wei Qi
		Yongsheng Li	O-202		O-308	O-402	O-501	
			Yuying Gao	INV-302	Zhangjing Zhang	Han Lin	Xiao-Ling Dong	INV-603
		O-101 Hao Lv	O-203 Yonghe Li (Online)	Yong Luo	O-309 Chao Liu	O-403 Tiancong Zhao	O-502 Bowen Jin	Haibo Zhu
Sep. 6			KN-202 Zheng Jiang	KN-303 Weiguo Song	KN-313 Xinyong Li (Online)	KN-402 Chengzhong Yu	KN-502 Zhiyong Tang	INV-604 Wenfu Yan
		INV-104 Hengquan Yang	INV-203	KN-304 Gang Fu	KN-314 Aiqin Wang	INV-403	(Online)	INV-605 Guidong Yang
	16:00	INV-105 Cuiling Li	Dong Su	INV-303 Jianan Zhang	INV-315 Yongquan Qu	Jiwei Cui	INV-503 Qianrong Fang	INV-606 Jing Xiao
	18:00	INV-106 Liang Wang	INV-204 Shenhui Li	INV-304 Jun Huang	INV-316 Wenshuai Zhu	O-404 Liang Chen O-405	INV-504 Yiyong Mai (Online)	INV-607 Kui Xie
	-	O-102 Hailong Xiong	INV-205 Zhengyang Zhou	INV-305 Lingzhi Wang	O-310	Wencheng Wu O-406	INV-505	INV-608 Yanhui Yi
		O-1 <u>0</u> 3	O-204	O-301	Ren Su	Yannan Yang	Fengshou Yu	INV-609
		Yuan Fang	Xiao Chen	Jianfeng Liu				Yunqian Dai
		KN-103 Dan Wang	KN-203 Yu Han (Online)	KN-305 Ya-Huei (Cathy) Chin (Online)	KN-315 Wei Wang	KN-403 Quan Yuan	KN-503 Feng Li	INV-610 Liang Wang
		INV-107 Hai-Long Jiang	INV-206 Bingwen Hu	KN-306	KN-316	INV-404 Daishun Ling	INV-506 Xiaoxin Zou	INV-611 Xiaodong Zhuang
Sep. 7	08:30 I 09:40	INV-108 Weihua Chen	INV-207 Lu Han	Peng Wu	Dingsheng Wang (Online)	INV-405 Jing Wei	INV-507 Liang Zhou	INV-612 Jiacheng Wang
		INV-109 Haoquan Zheng	INV-208 Xi Liu	INV-306 Fuwei Li	INV-317 Xingang Li O-311 Yu-Ting Lan	O-407 Chen-Yu Liu O-408 Minfeng Huo	INV-508 Jianwei Nai	INV-613 Jian-Ke Sun
		O-104 Pengpeng Qiu	O-205 Tu Sun	INV-307 Hao Jiang	O-312 Yueqiang Cao	O-409 Jia Tian (Online)	O-503 Ling-Yu Dong	O-601 Yuenan Zheng

Da	ite				Content			
Sess	ions	Materials Synthesis	Materials Characterization	Adsorption and Catalysis A	Adsorption and Catalysis B	Biology and Sensor	Energy Storage and Conversion	Young Scientist Forum
Loca	ation	Conference Chamber 8	Conference Chamber 9	Joyous Gathering Palace A	Joyous Gathering Palace B	Conference Chamber 7	International Conference Hall	Amphitheater 1
		KN-104	INV-209 Libo Li	KN-307 Xiangchen Fang	KN-317 Yingxu Wei	KN-404 Yonghui Deng	KN-504 Yongsheng Hu	INV-614 Zhikun Zheng
		Liping Wen	INV-210 Wei Liu			KN-405		INV-615 Xiao Feng
Sep. 7	10:00 I	INV-110 Li-Hua Chen	INV-211 Jun Xu	KN-308 Zhimin Liu	INV-318 Jing Zhang	Chung-Yuan Mou (Online)	INV-509 Yan Yu	INV-616 Yang Su
	12:00	INV-111	O-206	INV-308 Canghai Ma	O-313 Guihua Zhu	INV-406	INV-510	INV-617
		Zhijie Yang	Shilei Xue	O-302 Meiqi Gao	O-314 Xin-Yu Yang	Ping'an Ma	Junjie Ge	Qi Sun
		O-105 Guo Du	O-207 Shaobo Han	O-303 Li Xu	O-315 Mingyuan Zheng	INV-407	INV-511	INV-618
	-	O-106	O-208	O-304	O-316	Wenpei Fan	Baojiang Jiang	Pengcheng Gao
		Wei Zhang	Yi Zhou	Xufang Qian	Zhankai Liu			
		KN-105 Zheng Hu	INV-212 Shutao Xu	KN-309 Qihua Yang	KN-318 Yawen Zhang (Online)	KN-406 Xian-Zheng Zhang	KN-505 Tierui Zhang	INV-619 Heqing Jiang
	-	INV-112 Chong Peng	INV-213 Weili Dai	INV-309 Lijuan Song	KN-319 Dehui Deng	INV-408 Bingbing Sun	INV-512 Gengfeng Zheng	INV-620 Dong Gu INV-621
	14:00	INV-113	Weiping Zhang	INV-310		INV-409	INV-513	Chunjiang Jia
	15:40	Jianping Yang	O-209 Zhenfeng Pang	Ying-Ya Liu	INV-319 Hiromi Yamashita	Yin Fang	Yingying Lv	INV-622
		INV-114	O-210 Yu Wang	O-305 Qin Yue	(Online)	INV-410	INV-514	Jiahong Pan
		Huanrong Li	O-211 Zijia Wang	O-306 Shangru Zhai	O-317 Yue Wang	Chun Xu	Qing Han	INV-623
Sep. 7		O-107 Minhan Li	O-212 Jie Zhu	O-307 Yiming Niu	O-318 Jiahao Ren	INV-411 Peter Hesemann (Online)	O-504 Xiao-Fei Yu	Rong-Zhen Liao
·		KN-106 Qiang Xu	INV-215 Xueqian Kong	KN-310 Jian Liu	KN-320 Fengyu Zhao	· com recomann (crimic)	KN-506 Huabin Xing	INV-624 Yuchun Zhi
		INV-115 Yi Liu	INV-216 Jiaxu Liu		KN-321 Johannes A. Lercher		INV-515	INV-625
	16:00 I 18:00	INV-116	INV-217 Kuizhi Chen	INV-311 Li Song	(Online)		Jijing Xu	Yitao Dai
	10.00	O-108	O-213 Pan Gao	INV-312 Martin Hartmann (Online)	INV-320 Guanghui Zhang		INV-516 Wei Xing	
	-	Xiangcun Li O-109 Shiying Li O-110 Nicole Abdou (Online)	O-214 Yin-Shan Meng	INV-313 Xi Liu	O-319 Yuanyuan Yue O-320 Yanru Zhu		INV-517 Mingfei Shao	
Se		08:30-09:10	08:30-09:10 PLE-5 Ferdi Schüth					
Sep Joye		09:10-09:50			PLE-6 De Chen			
Gathe	ering	10:20-10:50 11:00-11:20	PLE-7 Dongyuan Zhao Award Ceremony					
Pala	ace	11:20-11:30		Closing Remarks				



### **Plenary Lecture**

Monday, Se	ptember 6, 2021 Location: Joyous Gathering Palace
Chair: An-H	ui Lu Dalian University of Technology
08:20-08:30	Welcome Speech
Chair: Dong	yuan Zhao Fudan University
08:30-09:10	Karen Edler University of Bath (Online)
PLE-1	Mesostructured Metal Oxides from Deep Eutectic Solvents
09:10-09:50	Jianlin Shi Shanghai Institute of Ceramics, Chinese Academy of Sciences
PLE-2	Mesoporous Silica Nanoparticle-Based Nanocatalytic Medicine for Tumor Therapy
09:50-10:20	Group Photo and Tea Break
Chair: Jianli	in Shi Shanghai Institute of Ceramics, Chinese Academy of Sciences
10:20-11:00	Yusuke Yamauchi The University of Queensland (Online)
PLE-3	Materials Space-Tectonics: A New Conceptual Paradigm for Conductive Porous Architectures
11:00-11:40	Bao-Lian Su University of Namur
PLE-4	Hierarchy in Mesostructured Materials: Enhancing Performance Beyond Limits
Wednesday	September 8, 2021 Location: Joyous Gathering Palace
Chair: Bao-	Lian Su University of Namur
08:30-09:10	Ferdi Schüth Max Planck Institute (Online)
PLE-5	Designed Catalytic Nanomaterials
09:10-09:50	De Chen Norwegian University of Science and Technology (Online)
PLE-6	Multifunctional Porous Materials for Process Intensification
09:50-10:20	Tea Break
Chair: An-H	ui Lu Dalian University of Technology
10:20-11:00 PLE-7	Dongyuan Zhao Fudan University Interfacial Assembly for the Synthesis of Novel Hierarchical Functional Mesoporous Materials
11:00-11:20	Award Ceremony
11:20-11:30	Closing Remarks



### **Topic Lecture**

### **Session 1: Materials Synthesis**

Monday, Se	ptember 6, 2021 Location: Conference Chamber 8
Chair: Feng	-Shou Xiao, Hengquan Yang
14.00 14.20	Shunai Che Shanghai Jiao Tong University
14:00-14:30 KN-101	Library Creation of Ultrasmall Multi-Metallic Nanoparticles Confined in Mesoporous MFI Zeolites Directed by $\pi$ - $\pi$ Interactions of Amphiphilic Molecules
14:30-14:50	Angang Dong Fudan University
INV-101	Functional Nanocrystal Superlattices and Derivatives
14:50-15:10	Zhangxiong Wu Soochow University
INV-102	Solid-State Nanocasting for Controllable Synthesis of Functional Ordered Mesoporous Carbons and Their Catalytic Applications
15:10-15:30	Yongsheng Li East China University of Science and Technology
INV-103	Predictable Synthesis of Hierarchically Mesoporous Materials and Their Potential Biomedical Applications
15:30-15:40	Hao Lv Sichuan University
O-101	Aqueous Synthesis of Noble Metal Mesoporous Nanoparticles by the Utilization of the Novel Surfactants
15:40-16:00	Tea Break
Chair: Shun	ai Che, Angang Dong
16:00-16:30	Feng-Shou Xiao Zhejiang University
KN-102	Design and Synthesis of Mesostructured Zeolite Crystals
16:30-16:50	Hengquan Yang Shanxi University
INV-104	Pickering Emulsion Droplets for Synthesizing Carbon Microspheres with Controlled Interior Structures and Their Catalytic Applications
	Cuiling Li Beijing Institute of Technology
INV-105	Mesoporous Metals for Confined Electrocatalysis
17:10-17:30	Liang Wang Zhejiang University of Technology
INV-106	Mesoporous Metallic Electrocatalysts
17:30-17:40	Hailong Xiong University of Science and Technology of China
O-102	Polymer-Oriented Self-Assembly towards Mesoporous Materials for Energy Storage
17:40-17:50	Yuan Fang Donghua University
O-103	Incorporating Cobalt Nanoparticles in Nitrogen-Doped Mesoporous Carbon Spheres through Composite Micelles Assembly for High-Performance Lithium-Sulfur Batteries



	ptember 7, 2021 Location: Conference Chamber 8
Chair: Lipin	g Wen, Li-Hua Chen
08:00-08:30	Dan Wang Institute of Process Engineering, Chinese Academy of Sciences
KN-103	Hollow Multi-Shelled Structure: A Promising Novel Materials
08:30-08:50	Hai-Long Jiang University of Science and Technology of China
INV-107	Microenvironment Modulation in Metal-Organic Framework-Based Catalysis
08:50-09:10	Weihua Chen Zhengzhou University
INV-108	Optimizing Solid Electrolyte Interphase via Rational Pore Design Enabling High- Performance Anode in Sodium-Ion Batteries
09:10-09:30	Haoquan Zheng Shaanxi Normal University
INV-109	Design and Catalytic Performance of Hierarchically Structured Materials with Heterogeneous Interface
09:30-09:40	Pengpeng Qiu Donghua University
<b>O-104</b>	Oriented Assembly of Nanostructured Functional Mesoporous Materials from Organic-Inorganic Composite Monomicelles
09:40-10:00	Tea Break
Chair: Dan	Wang, Hai-Long Jiang
10:00-10:30	<b>Liping Wen</b> Technical Institute of Physics and Chemistry, Chinese Academy of Sciences
KN-104	The Raising of Bioinspired Asymmetric Micro-Nanopore Membrane
10:30-10:50	Li-Hua Chen Wuhan University of Technology
INV-110	Hierarchically Porous Zeolite Single Crystals for High Catalytic Efficiency
10:50-11:10	Zhijie Yang Shandong University
INV-111	Self-Assembled Porous Nanoparticle Superlattices
44.40 44.00	Guo Du Nankai University
11.10 11.20	
11:10-11:20 <b>O-105</b>	Polyelectrolyte-Surfactant Mesomorphous Complex Templating: A Versatile Approach for Hierarchically Porous Polymer and Carbon Materials



Tuesday, Se	ptember 7, 2021 Location: Conference Chamber 8
Chair: Qian	y Xu, Yi Liu
14:00-14:30	Zheng Hu Nanjing University  Mesestructured, Carbon, Nanocagos: A New Platform for Advanced Energy
KN-105	Mesostructured Carbon Nanocages: A New Platform for Advanced Energy Conversion and Storage
14:30-14:50	<b>Chong Peng</b> Sinopec Dalian (Fushun) Research Institute of Petroleum and Petrochemicals
INV-112	Novel Zeolite Catalysts for Hydrocracking Light Cycle Oil into High Octane Gasoline
14:50-15:10	Jianping Yang Donghua University
INV-113	Porous Carbon-Based Electrocatalysts for Nitrate Reduction
15:10-15:30	Huanrong Li Hebei University of Technology
INV-114	Phosphors Derived from Silver-Exchanged Zeolites
15:30-15:40	Minhan Li Donghua University
O-107	Residual Chlorine Induced Cationic Active Species on A Porous Copper Electrocatalyst for Highly Stable Electrochemical CO <sub>2</sub> Reduction to C2+
15:40-16:00	Tea Break
Chair: Zhen	g Hu, Chong Peng
16:00-16:30	Qiang Xu Southern University of Science and Technology
KN-106	Metal-Organic Frameworks for Catalysis and Energy
16:30-16:50	Yi Liu Dalian University of Technology
INV-115	Meso-Structure Controlled Synthesis of Molecular Sieve Membranes towards Superior Separation Performances
16:50 17:10	Wei Luo Donghua University
16:50-17:10 INV-116	
INV-116	Enhancement in Sintering Driving Force Derived from In-situ Ordered Structural Collapse of Mesoporous Powders
	Collapse of Mesoporous Powders
17:10-17:20 <b>O-108</b>	Collapse of Mesoporous Powders  Xiangcun Li Dalian University of Technology
17:10-17:20	Collapse of Mesoporous Powders  Xiangcun Li Dalian University of Technology  Porous Membranes Design and Energy Storage
17:10-17:20 <b>O-108</b> 17:20-17:30	Collapse of Mesoporous Powders  Xiangcun Li Dalian University of Technology  Porous Membranes Design and Energy Storage  Shiying Li Institute of Coal Chemistry, Chinese Academy of Sciences  Control of MFI Crystal Assembly for Enhancing Catalytic and Adsorption



### **Session 2: Materials Characterization**

Monday, Se	ptember 6, 2021 Location: Conference Chamber 9
Chair: Zhen	g Jiang, Dong Su
14:00-14:30	Junliang Sun Peking University (Online)
KN-201	有机多孔材料结构确定
14:30-14:50	Peng Guo Dalian Institute of Chemical Physics, Chinese Academy of Sciences
INV-201	Structural Characterizations of Industrial Zeolites by Powder X-ray Diffraction and Electron Crystallography
14:50-15:10	Yihan Zhu Zhejiang University of Technology (Online)
INV-202	低剂量电子显微技术微尺度表征应用进展
15:10-15:20	<b>Ningdong Feng</b> Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences
O-201	Efficient and Selective Photocatalytic $CH_4$ Conversion to $CH_3OH$ with $O_2$ by Controlling Overoxidation on $TiO_2$
15:20-15:30	Yuying Gao Dalian Institute of Chemical Physics, Chinese Academy of
O-202	Sciences Nano-Imaging Studies of Plasmonic Photocatalysis
15:30-15:40	Yonghe Li Zhejiang University of Technology (Online)
O-203	Imaging of PTB7:PC <sub>71</sub> BM-Based Photoactive Layers in A Scanning Electron Microscope: Methodology Aspects and Nanomorphology by Correlative SEM and STEM
15:40-16:00	Tea Break
Chair: Peng	Guo
16:00-16:30	<b>Zheng Jiang</b> Shanghai Synchrotron Radiation Facility, Shanghai Advanced Research Institute, Chinese Academy of Science
KN-202	The Application of Synchrotron Radiation X-ray Spectroscopy in Energy Materials
16:30-16:50	Dong Su Institute of Physics, Chinese Academy of Sciences
INV-203	能源材料中相转化与界面结构的电子显微学分析
16:50-17:10	<b>Shenhui Li</b> Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences
INV-204	Solid State NMR Characterization of the Host-Guest Interaction in the Gaseous Adsorption and Chemical Separation on MOFs
17:10-17:30	<b>Zhengyang Zhou</b> Shanghai Institute of Ceramics, Chinese Academy of Sciences
INV-205	To Determine Mesoscopic Long-Range Order in Aperiodic Crystals with Diffraction Technique
17:30-17:40	Xiao Chen Tsinghua University
O-204	A Single-Molecule Van Der Waals Compass



Tuesday, Se	ptember 7, 2021 Location: Conference Chamber 9
Chair: Libo	Li, Wei Liu
08:00-08:30	Yu Han King Abdullah University of Science and Technology (Online)
KN-203	Advancing High-Resolution TEM Imaging of Electron Beam-Sensitive Materials from Impossible to Routine
08:30-08:50	Bingwen Hu East China Normal University
INV-206	Magnetic Resonance for Metal-Ion Batteries: From NMR to EPR
08:50-09:10	Lu Han Tongji University
INV-207	Electron Crystallographic Investigation of Crystals on the Mesostructural Scale
09:10-09:30	Xi Liu Shanghai Jiao Tong University
INV-208	Applications of Atomically-Resolved Secondary Electron Imaging Technique in Nanomaterials
09:30-09:40	Tu Sun Shanghai Tech University
O-205	Atomic-Level Characterization of Dynamics of a 3D Covalent Organic Framework by Cryo-Electron Diffraction Tomography
09:40-10:00	Tea Break
Chair: Bing	wen Hu, Lu Han
10:00-10:20	Libo Li Taiyuan University of Technology
INV-209	Light Hydrocarbons Separation in Metal-Organic Framework: Synthesis and Performance Regulation
10:20-10:40	Wei Liu Dalian Institute of Chemical Physics, Chinese Academy of Sciences
INV-210	Electron Microscopy Attempts for Beam-Sensitive Materials
10:40-11:00	Jun Xu Nankai University
INV-211	Multinuclear Solid-State NMR Studies of Porous Materials
11:00-11:10	Shilei Xue Malvern Panalytical
O-206	多功能 X-射线衍射系统对金属有机骨架化合物(MOFs)的多种表征方法
11:10-11:20	Shaobo Han Dalian Institute of Chemical Physics, Chinese Academy of Sciences
O-207	环境电镜对催化剂微观结构的原位表征
11:20-11:30	环境电镜对催化剂微观结构的原位表征 Yi Zhou Shanghai Tech University



Tuesday, Se	ptember 7, 2021 Location: Conference Chamber 9
Chair: Xueq	ian Kong, Jiaxu Liu
14:00-14:20	Shutao Xu Dalian Institute of Chemical Physics, Chinese Academy of Sciences
INV-212	Investigation of Adsorption and Diffusion in Porous Materials by (HP) <sup>129</sup> Xe NMR and PFG NMR Spectroscopies
14:20-14:40	Weili Dai Nankai University
INV-213	Lewis Acidic Sites Confined in Zeolites: Characterization and Application
14:40-15:00	Weiping Zhang Dalian University of Technology
INV-214	Solid-State NMR Characterization on the Microstructure and Acidity of Zeolite Catalysts
15:00-15:10	Zhenfeng Pang Zhejiang University
O-209	A Molecular View of Ligand on CdSe Nanocrystals
15:10-15:20	Yu Wang South China University of Technology
O-210	Ligand Engineering of Nanocrystal Self-assembly Advanced by in Situ Liquid-Cell TEM
15:20-15:30	<b>Zijia Wang</b> Center for High Pressure Science & Technology Advanced Research
O-211	Structural Evolution of Zeolites Under High Pressure
15:30-15:40	Jie Zhu Dalian University of Technology
O-212	The Dynamics of Iron Catalysts during CO <sub>2</sub> Hydrogenation to Hydrocarbons
15:40-16:00	Tea Break
Chair: Shuta	ao Xu, Weili Dai
16:00-16:20	Xueqian Kong Zhejiang University
INV-215	Tracing Defects in Metal-Organic Frameworks by Nuclear Magnetic Resonance
16:20-16:40	Jiaxu Liu Dalian University of Technology
INV-216	Dual-Beam Fourier Transform Infrared Spectrometer: Applications and Potentials in Heterogeneous Catalysis
16:40-17:00 INV-217	<b>Kuizhi Chen</b> Dalian Institute of Chemical Physics, Chinese Academy of Sciences
114V-27/	The Discovery of Partially Bonded Al (IV) in Zeolites by 35.2 T NMR
17:00-17:10	Pan Gao Dalian Institute of Chemical Physics, Chinese Academy of Sciences
O-213	固体 NMR 用于 OXZEO 催化合成气转化反应机理研究
17:10-17:20	Yin-Shan Meng Dalian University of Technology
<b>O-214</b>	Experimental Determination of Magnetic Anisotropy in Lanthanide Metallocene Single-Molecule Magnet



### **Session 3: Adsorption and Catalysis A**

Chair: Weiguo Song, Jianan Zhang  14:00-14:30 KN-301 Rong Cao Fujian Institute of Research on the Structure of Matter, Classification Porous Framework Based Catalysts for CO <sub>2</sub> Conversion  14:30-15:00 Lin-Bing Sun Nanjing Tech University KN-302 Cuprous Adsorbents: Valence Modulation and Stabilization  15:00-15:20 You Han Tianjin University ReaxFF Force Field Development and Application in Catalytic Reaction  15:20-15:40 Yong Luo Beijing University of Chemical Technology	hinese
KN-301  Academy of Sciences  Porous Framework Based Catalysts for CO <sub>2</sub> Conversion  14:30-15:00  Lin-Bing Sun Nanjing Tech University  KN-302  Cuprous Adsorbents: Valence Modulation and Stabilization  15:00-15:20  You Han Tianjin University  ReaxFF Force Field Development and Application in Catalytic Reaction  Yang Luc Poijing University of Chamical Technology	hinese
Porous Framework Based Catalysts for CO <sub>2</sub> Conversion  14:30-15:00 Lin-Bing Sun Nanjing Tech University  KN-302 Cuprous Adsorbents: Valence Modulation and Stabilization  15:00-15:20 You Han Tianjin University  INV-301 ReaxFF Force Field Development and Application in Catalytic Reaction	
KN-302 Cuprous Adsorbents: Valence Modulation and Stabilization  15:00-15:20 You Han Tianjin University  INV-301 ReaxFF Force Field Development and Application in Catalytic Reaction  Yang Lue Reijing University of Chamical Technology	
15:00-15:20 You Han Tianjin University  INV-301 ReaxFF Force Field Development and Application in Catalytic Reaction  Your Luc Poijing University of Chamical Technology	
INV-301 ReaxFF Force Field Development and Application in Catalytic Reaction	
Vona Luo Poiiina University of Chemical Technology	
15:20-15:40 Yong Luo Beijing University of Chemical Technology	
INV-302 Dispersion Behaviors of Droplet Impacting on Wire Mesh and Pr Intensification by Surface Micro/Nano-Structure	rocess
15:40-16:00 <b>Tea Break</b>	
Chair: Rong Cao, Lin-Bing Sun	
16:00-16:30 Weiguo Song Institute of Chemistry, Chinese Academy of Sciences	
KN-303 Single Atom Catalysts with Mesoporous Structure	
16:30-17:00 Gang Fu Xiamen University	
KN-304 Mechanisms for Spatial Separation Hydrogenation	
17:00-17:20 Jianan Zhang Zhengzhou University	
INV-303 Confinement Engeering for Electrocatalyst Design Regulated by Chemical Environment	
17:20-17:40 Jun Huang The University of Sydney (Online)	
INV-304 Tailoring Mesoporous Zeolites for Efficient Catalysts in Sustainable Proce	esses
17:40-18:00 Lingzhi Wang East China University of Science and Technology	
INV-305 Understanding the C-H Activation Mechanism of Photocatalytic Non-Oxi Methane Coupling	idative
18:00-18:10 Jianfeng Liu Beishide Instrument	
O-301 多孔材料吸附分离性能评价方法	



Tuesday, Se	ptember 7, 2021 Location: Joyous Gathering Palace A
Chair: Zhim	in Liu, Canghai Ma
08:00-08:30	Ya-Huei (Cathy) Chin University of Toronto (Online)
KN-305	Catalytic Requirements for Hydrogen Attack Reactions in Fuel and Chemical Syntheses
08:30-09:00	Peng Wu East China Normal University
KN-306	Design Synthesis of Large-Pore or New Zeolites from Layered Precursors
09:00-09:20	Fuwei Li Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences
INV-306	Heterogeneous Catalytic Construction and Transformation of C=O/CO Bonds in Oxygen-Containing Compounds
09:20-09:40	Hao Jiang East China University of Science and Technology
INV-307	Interface Engineering of Noble-Metal-Free Electrocatalysts Toward Efficient Water Splitting
09:40-10:00	Tea Break
Chair: Peng	Wu, Fuwei Li
10:00-10:30	<b>Xiangchen Fang</b> Sinopec Dalian (Fushun) Research Institute of Petroleum and Petrochemicals
KN-307	Study on the Structure-Activity Relationship of Hydrogenation Catalysts
10:30-11:00	Zhimin Liu Institute of Chemistry, Chinese Academy of Sciences
KN-308	Porous Polymer Catalysts for Transformation of Carbon Dioxide
11:00-11:20	Canghai Ma Dalian University of Technology
INV-308	Engineering Nanoporous Morphology of Advanced Membranes for CO <sub>2</sub> Capture
11:20-11:30	Meiqi Gao Shanghai Normal University
O-302	Self-Enhancing Catalytic Activity of Mesoporous Titania Supported Pt Nanoclusters
44 00 44 40	Li Xu Jiangsu University
11:30-11:40 <b>O-303</b>	Design of Non-Precious Metal Catalysts for Oxygen Reduction Reaction and Oxygen Evolution Reaction
11:40-11:50	Xufang Qian Shanghai Jiao Tong University
O-304	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Activation by Mesoporous Carbon/Nano-Iron for Organic Pollutant Removal



Tuesday, Se	ptember 7, 2021 Location: Joyous Gathering Palace A
Chair: Jian	Liu, Li Song
14:00-14:30	Qihua Yang Dalian Institute of Chemical Physics, Chinese Academy of Sciences
KN-309	Synthesis of Covalent Organic Frameworks for Photocatalysis: Mediating the Charge Separation
14:30-14:50	<b>Lijuan Song</b> China University of Petroleum (EastChina), Liaoning Petrochemical University
INV-309	Identification of Mass Transfer Properties of Zeolite Materials at Mesoscopic Scale
14:50-15:10	Ying-Ya Liu Dalian University of Technology
INV-310	Flow Synthesis of ZIF-67: A Recyclable Approach
15:10-15:20	Qin Yue University of Electronic Science and Technology of China
O-305	Colloidal Interface Assembly for Functional Core-Shell Mesoporous Materials
15:20-15:30	Shangru Zhai Dalian Polytechnic University
O-306	Ordered PMS Activator for Efficient Organic Pollutant Degradation
15:30-15:40	Yiming Niu Institute of Metal Research, Chinese Academy of Sciences
O-307	In-Situ Probing the Microstructure and Structure-performance Relationship of Acetylene Selective Hydrogenation Catalysts
15:40-16:00	Tea Break
Chair: Qihua	a Yang, Lijuan Song
16:00-16:30	Jian Liu Dalian Institute of Chemical Physics, Chinese Academy of Sciences
KN-310	Mesostructured Micro/Nano-Reactors for Sustainable Catalysis
16:30-16:50	Li Song University of Science and Technology of China
INV-311	Synchrotron-Based Multispectral Probing Electrocatalysts
16:50-17:10	Martin Hartmann Friedrich-Alexander-Universität Erlangen-Nürnberg (Online)
INV-312	Controlled Release and Selective Adsorption of Carbamazepine with Mesoporous Silica Materials
17:10-17:30	Xi Liu Shanghai Jiao Tong University
INV-313	Chemical Environment Induced Re-Dispersion of Ag Nanoparticles Visualized by Using In-situ TEM Techniques



### **Session 3: Adsorption and Catalysis B**

Monday, Se	ptember 6, 2021 Location: Joyous Gathering Palace B
Chair: Aiqin Wang, Wenshuai Zhu	
14:00-14:30 <b>KN-311</b>	<b>Yanze Du</b> Sinopec Dalian (Fushun) Research Institute of Petroleum and Petrochemicals
	Zeolite Innovation for the Transformation and Upgrading of Refining Industry
14:30-15:00	Yanqin Wang East China University of Science and Technology
KN-312	NbO <sub>x</sub> -Based Catalysts: Synthesis and Application in Lignin/Aromatic Plastics Conversion
15:00-15:20	Fujian Liu Fuzhou University
INV-314	Ordered Mesoporous Materials for Selective Elimination of Gaseous Sulfides
15:20-15:30	Zhangjing Zhang Fujian Normal University
O-308	Flexibility in Crystalline Porous Materials
15:30-15:40	Chao Liu East China Normal University
O-309	Interfacial Assembly of Metal-Organic Frameworks for Catalysis
15:40-16:00	Tea Break
Chair: Yanzo	e Du, Fujian Liu
16:00-16:30	Xinyong Li Dalian University of Technology
KN-313	Surface-Interface Charge-Transfer Process on the Heterogeneous Catalysis by In Situ Spectroscopy
16:30-17:00	Aiqin Wang Dalian Institute of Chemical Physics, Chinese Academy of Sciences
KN-314	Single-Atom Catalysis: Coordination Structure and Dynamic Behavior of M-N-C Materials
17:00-17:20	Yongquan Qu Northwestern Polytechnical University
INV-315	Insights into Hydrogen Spillover for Electrocatalytic Hydrogen Evolution
17:20-17:40	Wenshuai Zhu Jiangsu University
INV-316	Ultra-Deep Desulfurization of Diesel Based on Adsorption-Catalytic Oxidation Tandem Method
17:40-17:50	Ren Su Soochow University
O-310	Surface Hydroxylated Ni <sub>3</sub> Fe-MOF-OH Bifunctional Electrocatalyst with Enhanced Adsorption of Nitroarenes and Anilines for Paired N-N Coupling



Tuesday, Se	ptember 7, 2021 Location: Location: Joyous Gathering Palace B
Chair: Yingx	cu Wei, Jing Zhang
08:00-08:30	Wei Wang Lanzhou University
KN-315	Constructing Crystalline Organic Frameworks via Covalent Assembly
08:30-09:00	Dingsheng Wang Tsinghua University (Online)
KN-316	Metal Nanocatalysis
09:00-09:20	Xingang Li Tianjin University
INV-317	Controlling Product Selectivity of Fischer-Tropsch Synthesis via Tuning Adsorbability of Carbon Species on Metal Sites
09:20-09:30	Yu-Ting Lan Shenyang Normal University
O-311	Highly Dispersed Silver Nanoparticles Supported on HAP Catalyst with Different Morphology for CO Oxidation
09:30-09:40	Yueqiang Cao East China University of Science and Technology
O-312	Kinetics-Assisted Design and Taming of Catalytic Active Sites for Selective Hydrogenation
09:40-10:00	Tea Break
Chair: Wei V	Vang, Xingang Li
10:00-10:30	Yingxu Wei Dalian Institute of Chemical Physics, Chinese Academy of Sciences
KN-317	Water-Induced Structural Dynamic Process of Molecular Sieve
10:30-10:50	Jing Zhang Liaoning Petrochemical University
INV-318	Surface Phase Junction Engineering for Boosting Photocatalytic Activity
10.50.11.00	Guihua Zhu Donghua University
10:50-11:00 <b>O-313</b>	Modulating the Electronic Structure of FeCo Nanoparticles in N-Doped Mesoporous Carbon Frameworks for Highly Efficient Oxygen Reduction Reaction
	Xin-Yu Yang Shenyang Normal University
11:00-11:10 <b>O-314</b>	A Unique Morphology and Interface Confine Strategy Enables MgAl Layered Double Hydroxides Supported Nano-platinum Catalyst with Enhanced Performance
11:10-11:20 <b>O-315</b>	<b>Xianquan Li</b> Dalian Institute of Chemical Physics, Chinese Academy of Sciences
	Catalytic Conversion of Ethanol to 1,3-Butadiene in Two Steps over Hierarchical Zeolite Based Catalysts
11.20 11.20	Zhankai Liu Dalian University of Technology
11:20-11:30 <b>O-316</b>	Plasma Tuning Local Environment of Hexagonal Boron Nitride for Oxidative Dehydrogenation of Propane



Tuesday, Se	ptember 7, 2021 Location: Location: Joyous Gathering Palace B
Chair: Feng	yu Zhao, Guanghui Zhang
14:00-14:30	Yawen Zhang Peking University (Online)
KN-318	Catalytic Transformation of Carbon Dioxide into High-value Added Chemicals
14:30-15:00	<b>Dehui Deng</b> Dalian Institute of Chemical Physics, Chinese Academy of Sciences
KN-319	Low-Temperature Conversion of C1 Molecules with 2D Catalyst
15:00-15:20	Hiromi Yamashita Osaka University (Online)
INV-319	PdAg Alloy Nanoparticles Encapsulated in N-Doped Microporous Hollow Carbon Spheres for Hydrogenation of CO <sub>2</sub> to Formate
15:20-15:30	Yue Wang Tianjin University
O-317	Catalytic Hydrogenation of Esters to Alcohols inside Mesoporous Materials: Adsorption and Diffusion Effect
15:30-15:40	Jiahao Ren Beijing University of Chemical Technology
O-318	Computer-Aided Discovery of MOFs with Calixarene-Analogous Microenvironment for Exceptional SF <sub>6</sub> Capture
15:40-16:00	Tea Break
Chair: Dehu	i Deng
16:00-16:30	Fengyu Zhao Changchun Institute of Applied Chemistry Chinese Academy of Sciences
KN-320	Significance of Brønsted Acid Sites in Controlling Product Selectivity of Hydrodeoxygenation over the ZSM-5 Supported Ru Catalysts
16:30-17:00	Johannes A. Lercher Technische Universität München
KN-321	Structure and Organization of Water in Confined Space-Impact on Sorption and Catalytic Transformations
17:00-17:20	Guanghui Zhang Dalian University of Technology
INV-320	Structural Evolution of Metal Oxide Catalysts during CO <sub>2</sub> Hydrogenation
17:20-17:30	Yuanyuan Yue Fuzhou University
O-319	Green Synthesis of Hierarchical Zeolites via a Mesoscale Depolymerization-Reoriganization Approach
17:30-17:40	Yanru Zhu Beijing University of Chemical Technology
O-320	Mesostructured Layered Double Hydroxides-Based Supported Metal Catalysts: Nanostructure Design and Construction



### **Session 4: Biology and Sensor**

Monday, Se	ptember 6, 2021 Location: Conference Chamber 7
Chair: Chen	gzhong Yu, Jiwei Cui
14:00-14:30	Zhi Ping (Gordon) Xu University of Queensland (Online)
KN-401	Development of Cu-Containing Layered Double Hydroxide Hybrid Nanoparticles for Efficient Combination Cancer Therapy
14:30-14:50	Dalong Ni Shanghai Jiao Tong University
INV-401	Regualting the Oxygen Vacancy for Medical Applications
14:50-15:10	Jingjing Wan East China Normal University
INV-402	Novel Functional Materials for Metabolic Diagnosis
15:10-15:20	Jiefei Wang Henan University
O-401	NIR Nanotheranostics for Brain Diseases
15:20-15:30	Han Lin Shanghai Institute of Ceramics, Chinese Academy of Sciences
O-402	Recent Advances in Physical Field-Responsive Nanocatalytic Tumor Therapeutics
15:30-15:40	Tiancong Zhao Fudan University
O-403	Surface Confined Winding Assembly of Mesoporous Nanorods
15:40-16:00	Tea Break
Chair: Daloi	ng Ni, Jingjing Wan
16:00-16:30	Chengzhong Yu University of Queensland
KN-402	Mesoporous Nanoparticles as Carriers and Biomodulators for Drug Delivery Applications
16:30-16:50	Jiwei Cui Shandong University
INV-403	Rational Design of Poly(Ethylene Glycol) Nanoparticles for Targeted Drug Delivery
16:50-17:00	Liang Chen Shanghai University
O-404	Overcoming Biological Barriers with Porous Biomaterials for Efficient Theranostic Applications
17:00-17:10	Wencheng Wu Shanghai Institute of Ceramics, Chinese Academy of Sciences
O-405	多孔纳米材料触发的药物原位转换在肿瘤治疗中的研究与应用
17:10 17:20	Yannan Yang Fudan University, The University of Queensland
17:10-17:20 <b>O-406</b>	Biomodulatory Mesoporous Nanoparticles Based Biomedicines for Cancer Therapy



Tuesday, Se	eptember 7, 2021 Location: Conference Chamber 7
Chair: Yong	hui Deng, Ping'an Ma
08:00-08:30	Quan Yuan Hunan University
KN-403	Controlled Synthesis of Persistent Luminescence Nanomaterials
08:30-08:50	Daishun Ling Shanghai Jiao Tong University
INV-404	Dynamic Nano-Assemblies Based Biomaterials & Drug Delivery Systems
08:50-09:10	Jing Wei Xi'an Jiaotong University
INV-405	Self-Template Synthesis of Spherical Mesoporous Metal Oxides for Gas Sensing
09:10-09:20	Minfeng Huo Shanghai Institute of Ceramics, Chinese Academy of Sciences
O-407	Nanocatalytic Tumor Therapeutics Enabled by Mesostructured Materials
09:20-09:30	Jia Tian Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences (Online)
O-408	Water-soluble Organic Frameworks: Design, Construction and Potential Pharmaceutical Applications
09:30-09:40	Chen-Yu Liu Dalian University of Technology
O-409	Application of Sponge DA Material in Antibacterial Hemostasis
09:40-10:00	Tea Break
Chair: Quan	Yuan, Daishun Ling
10:00-10:30	Yonghui Deng Fudan University
KN-404	Mesoporous Semiconductor Metal Oxides for Gas Sensing Applications
10:30-11:00	Chung-Yuan Mou National Taiwan University (Online)
KN-405	Mesoporous Silica Nanoparticles for Cancer Therapy
11:00-11:20 INV-406	Ping'an Ma Changchun Institute of Applied Chemistry, Chinese Academy of Sciences
	Tumor Microenvironment-Triggered In-Situ Cancer Vaccines for Immunotherapy
11:20-11:40	Wenpei Fan China Pharmaceutical University
INV-407	Hollow Mesoporous Organosilica Nanotheranostics
L	



Tuesday, Se	ptember 7, 2021 Location: Conference Chamber 7	
Chair: Xian-	Chair: Xian-Zheng Zhang, Bingbing Sun	
14:00-14:30	Xian-Zheng Zhang Wuhan University	
KN-406	Functional Peptide Based Materials for Biomedical Applications	
14:30-14:50	Bingbing Sun Dalian University of Technology	
INV-408	Engineered Aluminum-Based Nanoadjuvants for Prophylactic Vaccines	
14:50-15:10	Yin Fang Tongji University	
INV-409	Mesoporous Materials and Micro-Devices for Biomodulations	
15:10-15:30	Chun Xu University of Queensland (Online)	
INV-410	Designer nanoparticles for biomedical applications	
15:30-15:50	Peter Hesemann Institute Charles Gerhardt, France (Online)	
INV-411	Mesoporous Ionosilica Nanoparticles for Biomedical Applications: Drug Delivery, Photodynamical Therapy and Photochemical Internalization of siRNA	



### **Session 5: Energy Storage and Conversion**

Monday, Se	ptember 6, 2021 Location: International Conference Hall
Chair: Qianrong Fang, Fengshou Yu	
14:00-14:30	Liqiang Mai Wuhan University of Technology
KN-501	One Dimensional Nanomaterials for Emerging Energy Storage
14:30-14:50	Dongliang Chao Fudan University
INV-501	Zinc Electrochemistry and Device
14:50-15:10	Pengfei Zhang Shanghai Jiao Tong University
INV-502	Mechanochemical Synthesis of Porous Solid Catalysts
15:10-15:20	Xiao-Ling Dong Dalian University of Technology
O-501	Rational Design of Carbon Anodes for Efficient Storage of Na Ions
	Bowen Jin Beijing University of Chemical Technology
15:20-15:30 <b>O-502</b>	Tunable Built-in Electric Fields Enable High-Performance One Dimensional Co-axial MoOx/MoON Heterojunction Nanotube Arrays for Thin-Film Pseudocapacitive Charge Storage Devices
15:30-16:00	Tea Break
Chair: Liqia	ng Mai, Dongliang Chao
16:00-16:30	Zhiyong Tang National Center for Nanoscience and Technology (Online)
KN-502	Boosting the Efficiency of Electrocatalytic CO <sub>2</sub> Reduction via Nanoprison Effect
16:30-16:50	Qianrong Fang Jilin University
INV-503	Design and Applications of Functionalized Covalent Organic Frameworks
16:50-17:10	Yiyong Mai Shanghai Jiao Tong University (Online)
INV-504	Controlled Preparation of Mesoporous Nanomaterials for Energy Storage and Conversion by Tunable Self-Assembly of Block Copolymers in Solution
17:10-17:30	Fengshou Yu Hebei University of Technology
INV-505	The Effect of Asymmetric Coordination Environment on Electro Catalytic Performance



Tuesday, Se	ptember 7, 2021 Location: International Conference Hall	
Chair: Yong	Chair: Yongsheng Hu, Yan Yu	
08:00-08:30	Feng Li Institute of Metal Research, Chinese Academy of Sciences	
KN-503	Surface and Pore Size of Graphene during Electrochemical Process	
08:30-08:50	Xiaoxin Zou Jilin University	
INV-506	Structural Chemistry of Electrocatalysts for Water Splitting	
08:50-09:10	Liang Zhou Wuhan University of Technology	
INV-507	Silicon Oxides: A Promising Family of Anode Materials for Lithium-Ion Batteries	
09:10-09:30	Jianwei Nai Zhejiang University of Technology	
INV-508	Crystal Engineering of Inorganic Micro- and Nano-Materials for Energy Applications	
09:30-09:40	Ling-Yu Dong Dalian University of Technology	
O-503	Marked Enhancement of Electrocatalytic Activities for Gas-Consuming Reactions by Bimodal Mesopores	
09:40-10:00	Tea Break	
Chair: Feng	Li, Xiaoxin Zou	
10:00-10:30	Yongsheng Hu Institute of Physics, Chinese Academy of Sciences	
KN-504	1 MWh 钠离子电池储能系统	
10:30-10:50	Yan Yu University of Science and Technology of China	
INV-509	Advanced Sodium Ion Batteries	
10:50-11:10	Junjie Ge Changchun Institute of Applied Chemistry, Chinese Academy of Sciences	
INV-510	Proton Exchange Membrane Fuel Cells Powered with H <sub>2</sub> /CO Mixture and Pure Carbon Monoxide	
11:10-11:30	Baojiang Jiang Heilongjiang University	
INV-511	Material Control Synthesis for Artificial Conversion of Solar Energy	



Tuesday, September 7, 2021 Location: International Conference Hall	
Chair: Huabin Xing, Jijing Xu	
14:00-14:30	<b>Tierui Zhang</b> Technical Institute of Physics and Chemistry, Chinese Academy of Sciences
KN-505	Defective Layered Double Hydroxide Based Nanostructured Photocatalysts
14:30-14:50	Gengfeng Zheng Fudan University
INV-512	Electrocatalytic CO <sub>2</sub> Reduction toward C2+ Alcohols
14:50-15:10	Yingying Lv Shanghai University
INV-513	Largely Improved Battery Performance by Ultra-Thin Porous Protection Layer Construction
15:10-15:30	Qing Han Beijing Institute of Technology
INV-514	Conjugated Carbon Nitride Materials toward Photocatalysis
15:30-15:40	Xiao-Fei Yu Dalian University of Technology
O-504	Porous Carbon/Borocarbonitride Hybrid with High Tap Density as a Polar Host for Ultralong Life Lithium-Sulfur Batteries
15:40-16:00	Tea Break
Chair: Tieru	i Zhang, Gengfeng Zheng
16:00-16:30	Huabin Xing Zhejiang University
KN-506	Anion-Functionalized Ultramicroporous Materials for Separation of Hydrocarbons
16:30-16:50	Jijing Xu Jilin University
INV-515	Research on Solid-State Metal Air Batteries Assisted by External Fields
16:50-17:10	Wei Xing China University of Petroleum (East China)
INV-516	Preparation and Electrochemical Properties of Transition Metal (Hydrogen) Oxide-Based Hybrid Supercapacitor Electrode Materials
17:10-17:30	Mingfei Shao Beijing University of Chemical Technology
INV-517	Reversible Intercalation of Metal Cations towards High-Performance Batteries



### **Session 6: Young Scientist Forum and Materials Beyond**

Monday, Se	ptember 6, 2021 Location: Amphitheater 1			
Chair: Wenf	u Yan, Jing Xiao			
14:00-14:40	Landong Li Nankai University			
KN-601	Extraframework Cations in Zeolites Construction and Applications			
14:40-15:00	Xuezhi Duan East China University of Science and Technology			
INV-601	Nano-Kinetics Modelling: A Tool to Design and Optimize Supported Noble Metal Catalysts			
15:00-15:20	Wei Qi Institute of Metal Research, Chinese Academy of Sciences			
INV-602	Primary Alcohol Conversion on Carbon-Based Catalysts: From Reaction Mechanism to Catalyst Design			
15:20-15:40	Haibo Zhu Fuzhou University			
INV-603	Pt Stabilized on Mesostructured Zeolite and Alumina as Effective Catalysts for Propane Dehydrogenation			
15:40-16:00	Tea Break			
Chair: Land	ong Li, Xuezhi Duan			
16:00-16:20	Wenfu Yan Jilin University			
INV-604	The Inorganic Cation-Tailored "Trapdoor" Effect of Silicoaluminophosphate Zeolite for Highly Selective CO <sub>2</sub> Separation			
16:20-16:40	Guidong Yang Xi'an Jiaotong University			
INV-605	The Research of Solar-Driven Water Splitting to Produce Hydrogen			
16:40-17:00	Jing Xiao South China University of Technology			
INV-606	Ultramicroporous Carbons Featuring Sub-Ångstrom Tunable Apertures for the Selective Separation of Light Hydrocarbon			
17:00-17:20	<b>Kui Xie</b> Fujian Institute of Research on the Structure, Chinese Academy of Sciences			
INV-607	Porous Single Crystals and Heterogeneous Catalysis			
17:20-17:40	Yanhui Yi Dalian University of Technology			
INV-608	Modification of Catalytic Materials by Plasma for Conversion of Light Alkanes			
17:40-18:00	Yunqian Dai Southeast University			
INV-609	Functionalization and Application of Inorganic Porous Nanofibers			



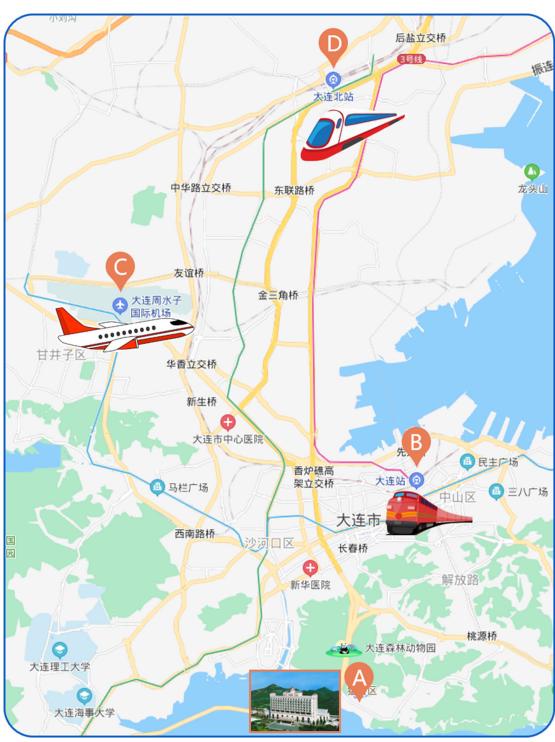
Tuesday, Se	ptember 7, 2021 Location: Amphitheater 1
Chair: Zhiku	ın Zheng, Xiao Feng
08:00-08:20	Liang Wang Zhejiang University
INV-610	RhMn@Zeolite Catalyst for Syngas Conversion
08:20-08:40	Xiaodong Zhuang Shanghai Jiao Tong University
INV-611	Bottom-up Design of Porous Carbons with Rich Topological Defects for Energy Conversion
08:40-09:00	Jiacheng Wang Shanghai Institute of Ceramics, Chinese Academy of Sciences
INV-612	电催化材料与能源器件
09:00-09:20	Jian-Ke Sun Beijing Institute of Technology
INV-613	High-Efficient Synthesis of Porous Organic Cages for Catalytic Applications
09:20-09:30	Yuenan Zheng Jilin University
O-601	Controllable Synthesis and Application of Mesoporous Metal Oxides with Complex Structure
09:30-10:00	Tea Break
Chair: Liang	y Wang, Xiaodong Zhuang
10:00-10:20	Zhikun Zheng Sun Yat-sen University
INV-614	Two-Dimensional Polymer Films: Synthesis and Structure Control
10:20-10:40	Xiao Feng Beijing Institute of Technology
INV-615	Mass Transfer and Separation in Porous Material-Based Membranes
10:40-11:00	Yang Su Tsinghua University (Shenzhen)
INV-616	Modulation of Molecular Transport Nanochannels inside Graphene Oxide Membrane
11:00-11:20	Qi Sun Zhejiang University
INV-617	Ionic Covalent Organic Framework Membranes for Blue Energy Harvesting
11:20-11:40	Pengcheng Gao China University of Geosciences (Wuhan)
INV-618	Distinct Functional Elements for Outer-Surface Anti-Interference and Inner-Wall Ion Gating of Nanochannels



Materials Be	eyond				
Tuesday, Se	ptember 7, 2021 Location: Amphitheater 1				
Chair: Heqir	ng Jiang, Dong Gu				
14:00-14:20	Chunjiang Jia Shandong University				
INV-619	Active Metal Cluster-Oxygen Vacancy Synergistic Catalysis				
14:20-14:40	<b>Heqing Jiang</b> Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences				
INV-620	Mixed Conducting Ceramic Membranes for Hydrogen Production				
14:40-15:00	Rong-Zhen Liao Huazhong University of Science and Technology				
INV-621	Transition Metal Based Redox Catalysis: A Computational Perspective				
15:00-15:20	Jiahong Pan North China Electric Power University				
INV-622	Self-Assembly and Phase Transition of Hydrous TiO <sub>2</sub> Colloidal Spheres for Photo/Electrochemical Applications				
15:20-15:40	Dong Gu Wuhan University				
INV-623	Design of Mesoporous Materials as Heterogeneous Catalysts for Organic Molecule Construction				
15:40-16:00	Tea Break				
16:00-16:20	Yuchun Zhi Dalian Institute of Chemical Physics, Chinese Academy of Sciences				
INV-624	Autocatalysis Mechanism, Deactivation and Coke Adjustment of Methanol-to-Olefins Reaction				
16:20-16:40	<b>Yitao Dai</b> Suzhou Institute for Advanced Research, University of Science and Technology of China				
INV-625	Bismuth-Based All-Inorganic Halide Perovskites as Visible-Light Photocatalysts for Organic Transformations				



### **Traffic Guide**













1. 大连周水子国际机场 → 国际金融会议中心(Dalian International Airport → Dalian International Finance Conference Center)

出租车(by taxi): 全程约 16 公里, 用时约 30 分钟, 费用预计 35 元

**地铁/公交**(by subway/bus): 乘坐地铁 2 号线(步行 217 米,机场站 A 口进入,海之韵方向)  $\rightarrow$  人民广场地铁站 C 口出站(共 10 站,用时约 30 分钟,费用 3 元),步行 210 米,换乘 702/541 路公交车,长春路公交站(森林动物园南门方向)  $\rightarrow$  银沙滩公交站(共 14 站,用时约 25 分钟,费用 1 元),步行 82 米,到达大连国际金融会议中心。

2. 大连火车站 → 国际金融会议中心 (Dalian Railway Station → Dalian International Finance Conference Center)

出租车(by taxi): 全程约 10 公里, 用时约 25 分钟, 费用预计 25 元

公交(by bus): 乘坐 702 路公交车(步行 445 米,森林动物园南门方向),友好广场公交站  $\rightarrow$  银沙滩公交站(共 18 站,费用 1 元),步行 82 米,到达大连国际金融会议中心,总用时约 1 小时。

3. 大连北站 → 国际金融会议中心 (Dalian North Railway Station → Dalian International Finance Conference Center)

出租车(by taxi): 全程约 22 公里, 用时约 40 分钟, 费用预计 50 元

公交(by bus): 乘坐 1022 路公交车(步行 588 米,青泥洼桥方向),海盛花园公交站  $\rightarrow$  长春路公交站(共 22 站,费用 2 元),同站换乘 541/702 路公交车(森林动物园南门方向)  $\rightarrow$  银沙滩公交站(共 13 站,费用 1 元),步行 82 米,到达大连国际金融会议中心,总用时约 2 小时。



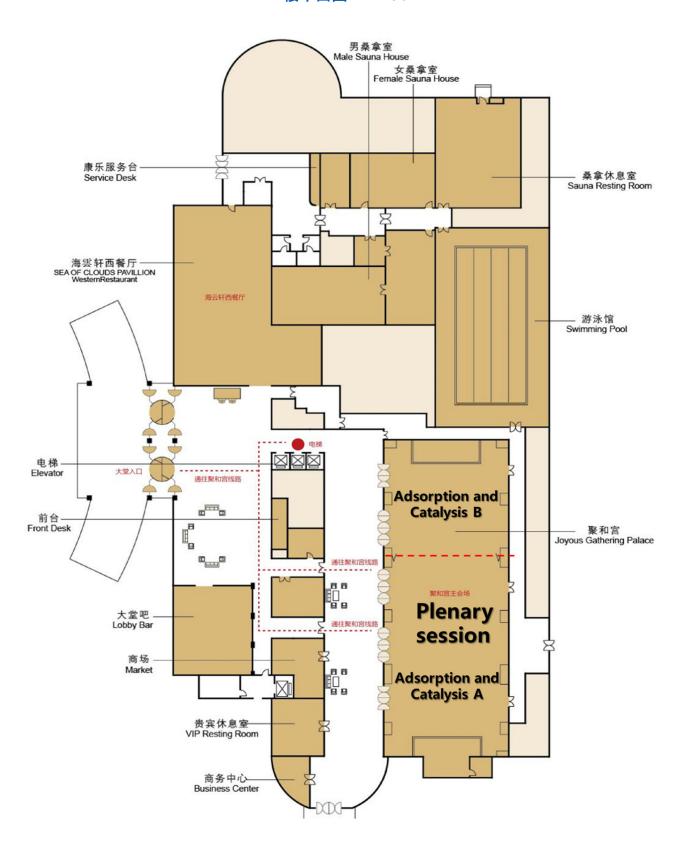
### **Conference Venue**

### 国际金融会议中心布局图 Hotel Layouts





#### 一楼平面图 1st Floor





#### 二楼平面图 2<sup>nd</sup> Floor

