

SACC 2023 – Programme Overview

18 May, 2023						
08:00-09:00	On-site Registration			Venue: UT Auditorium 2		
Single Sessions	Program	Speaker		Chair by Ning Yan		
09:00-09:10	Opening ceremony	Prof. Bin Liu <i>Deputy President, NUS</i>				
09:10-10:00	Plenary Lecture (PL01)	Prof. Hiromi Yamashita <i>Osaka University</i>		Design of Nanostructured Catalysts and Photocatalysts for Renewable Energy and Environmental Uses		
10:00-10:40	Tea Break & Photo Session					
Single Sessions	Program	Speaker		Chair by Jason Yeo		
10:40-11:30	Plenary Lecture (PL02)	Prof. Jaeyoung Lee <i>Gwangju Institute of Science and Technology</i>		Scale-up Science in Electrocatalytic Processes		
11:30-11:55	Invited Lecture (IL01)	Prof. Supareak Praserttham <i>Chulalongkorn University</i>		Quantum Chemistry and Machine Learning for Catalyst Screening and on-line Process Optimization		
11:55-12:20	Invited Lecture (IL02)	Prof. Thăng Lê Minh <i>Hanoi University of Science and Technology</i>		The treatment of VOCs by combination of adsorption and complete oxidation using mixed metallic oxide catalysts on ceramic substrate		
12:20-13:30	Lunch					
	Venue: LT 52			Venue: LT 53		
Parallel Sessions	Program	Speaker	Chair by LEOW Wan Ru	Program	Speaker	Chair by Paul Liu
13:30-13:55	Invited Lecture (IL03)	Prof. Dan Ren <i>Xi'an Jiaotong University</i>	Electrochemical reduction of carbon dioxide to feedstock: from carbon monoxide to propylene	Invited Lecture (IL06)	Dr. Shinya Hodoshima <i>Chiyoda Corporation</i>	Zeolite-based composite catalysts and their application to unique chemical processes
13:55-14:20	Invited Lecture (IL04)	Prof. Ananth Govind Rajan <i>Indian Institute of Science</i>	Discovering a Single-Atom Catalyst for CO ₂ Electroreduction to C1 Hydrocarbons: Thermodynamics and Kinetics on Aluminum-Doped Copper	Invited Lecture (IL07)	Prof. Chanatip Samart <i>Thammasat University</i>	CO ₂ assisted catalytic fast pyrolysis of palm kernel shell over Ni-Ce/N-doping activated carbon catalyst
14:20-14:40	Oral Presentation (OP01)	Dr. Junmei Chen <i>National University of Singapore</i>	Selective CO Reduction to Acetate via Enhanced CO Diffusion on Cu Catalyst	Oral Presentation (OP07)	Prof. Hiang Kwee LEE <i>Nanyang Technological University</i>	Designing Nanocatalytic Interface and Ensemble to drive Nitrogen-to-Ammonia Transformation
14:40-15:00	Oral Presentation (OP02)	Prof. Suwadee Kongparakul <i>Thammasat University</i>	Preparation of Bipolar Membrane with Ti ₃ C ₂ T _x as an Interfacial Layer for Hydrogen Production via Water Electrolysis	Industrial Talk (IT01)	Dr. Shruthi Kini <i>Agilent Technologies</i>	Agilent Solutions for Alternative Energy Applications
15:00-16:15	Tea break & Poster Viewing					
Parallel Sessions	Program	Speaker	Chair by Andrew B. Wong	Program	Speaker	Chair by Luwei Chen
16:15-16:40	Invited Lecture (IL05)	Prof. Joongjai Panpranot <i>Chulalongkorn University</i>	Novel strategy to catalytically synthesize nanocrystalline carbon from liquid oxygenates at ambient conditions	Invited Lecture (IL08)	Prof. Bin Liu <i>City University of Hong Kong</i>	Electrochemical CO ₂ Reduction Chemistry over Model Single-Atom Catalyst
16:40-17:00	Oral Presentation (OP03)	Prof. Andrew B. Wong <i>National University of Singapore</i>	Strategies to Control the Microenvironment in Electrochemical CO ₂ Reduction	Oral Presentation (OP08)	Dr. Sathrugnan Karthikeyan <i>Frontier Laboratories, Japan</i>	Rapid Catalyst screening tool for Fischer-Tropsch reaction
17:00-17:20	Oral Presentation (OP04)	Zongyin Song <i>University of Science and Technology of China</i>	Sensing Material-dependent Interference of Multiple Heavy Metal ions: Experimental and Simulated Thermodynamics Study on Cu(II), Cd(II), and As(III) Electroanalysis	Oral Presentation (OP09)	Dr. Xiukai Li <i>ISCE², A*STAR</i>	From Waste Plastic to Artificial Lotus leaf: Upcycling Waste Polypropylene to Superhydrophobic Particles with Hierarchical Micro/nanostructure
17:20-17:40	Oral Presentation (OP05)	Prof. Lei Wang <i>National University of Singapore</i>	Promote Pd-catalyzed CO ₂ to formate conversion via manipulation of the Pd valence state	Oral Presentation (OP10)	Jacqui Lin <i>University College London</i>	Hierarchically structured nanoporous aluminosilicate systems and their catalytic applications
17:40-18:00	Oral Presentation (OP06)	Yongyu Li <i>Tianjin University</i>	Modulating the electronic structures driven by neighbouring hetero-diatom FeCo for prominent electrocatalysis of arsenious acid	Oral Presentation (OP11)	Dr. Xiao Hai <i>National University of Singapore</i>	Synthesis and application of ultra-high-density single-atom catalysts
19:00	Conference Banquet J65 buffet dinner					

19 May, 2023

Venue: LT 52						
Single Session	Program		Speaker		Chair by Paul Liu	
09:00-9:50	Plenary Lecture (PL03)		Prof. Xin Wang <i>City University of Hong Kong</i>		Electrochemical CO ₂ Reduction Chemistry over Model Single-Atom Catalyst	
Single Session	Program		Speaker		Chair by Jia Zhang	
9:50-10:40	Plenary Lecture (PL04)		Prof. Peijun Hu <i>Queen's University Belfast</i>		First Principles Microkinetic Simulations for Heterogeneous Catalysis	
10:40-11:00	Tea Break					
Venue: LT 52			Venue: LT 53			
Parallel Sessions	Program	Speaker	Chair by Paul Liu	Program	Speaker	Chair by Jia Zhang
11:00-11:25	Invited Lecture (IL09)	Prof. Huabin Zhang <i>King Abdullah University of Science and Technology</i>	Regulating Photocatalytic CO ₂ Reduction Kinetics through Modification of Surface Coordination Sphere	Invited Lecture (IL13)	Dr. Melanie Weingarten <i>SIFBI, A*STAR</i>	The winner takes it all
11:25-11:50	Invited Lecture (IL10)	Prof. Xiaoming Cao <i>East China University of Science and Technology</i>	Mechanism of Photocatalytic Direct Methane to Methanol in the Aqueous Solution	Invited Lecture (IL14)	Dr. Tan Teck Leong <i>IHPC, A*STAR</i>	Alloy Design for Catalytic Applications via High-Throughput DFT & Machine-learned Surrogate Models
11:50-12:10	Industrial Talk (IT02)	Dr. Xiande(Sam) Ding <i>Bruker Corporation</i>	Bruker FTIR and accessories used for in-situ catalyst study	Oral Presentation (OP19)	Prof. Sergey M. Kozlov <i>National University of Singapore</i>	Engineering Metal-Support Interactions in Catalysis
12:10-13:10	Lunch					
Parallel Sessions	Program	Speaker	Chair by Qian He	Program	Speaker	Chair by Lei Wang
13:10-13:35	Invited Lecture (IL11)	Prof. Xi Chen <i>Shanghai Jiao Tong University</i>	Acid hydrolysis of chitin in calcium chloride solutions	Invited Lecture (IL15)	Prof. Cheng Jun <i>Xiamen University</i>	Theory of phase transition catalysis of dynamic clusters
13:35-14:00	Invited Lecture (IL12)	Prof. Wan Nor Roslam Wan Isahak <i>The National University of Malaya</i>	Influence of Exfoliated Mesoporous Graphitic Carbon Nitride Support Materials and Rare Earth Elements promoted Catalysts in CO ₂ Methanation	Invited Lecture (IL16)	Prof. Abhishek Singh <i>Indian Institute of Science, Bangalore</i>	Unravelling the Design Principles of Efficient Catalysts using First-Principles and Machine Learning
14:00-14:20	Oral Presentation (OP12)	Dr. Yan Liu <i>ISCE², A*STAR</i>	Reconstructing surface nitrogen species on the chitosan-derived carbon for the enhanced CO ₂ hydrogenation over Ru-based catalysts	Oral Presentation (OP20)	Dr. Chuhong Lin <i>Nanyang Technological University</i>	Predicting the Adsorption Energies of Cyclic Hydrocarbons Adsorbed on Bimetallic Nanoclusters Using Machine Learning
14:20-14:40	Oral Presentation (OP13)	Prof. Kongzhai Li <i>Kunming University of Science and Technology</i>	Interface engineering in catalyst design for CO ₂ conversion and chemical looping	Oral Presentation (OP21)	Dr. Martin van Meurs <i>ISCE², A*STAR</i>	Catalytic Upgrading of Carbon Waste to Value-Added Chemicals
14:40-15:00	Oral Presentation (OP14)	Dr Lili Zhang <i>ISCE², A*STAR</i>	Multifunctional Catalysts for Sustainable Catalysis	Oral Presentation (OP22)	Dr. Juan Manuel Arce-Ramos <i>IHPC, A*STAR</i>	Investigating the deactivation mechanism of Fe-based catalysts during CO ₂ reduction to chemicals
15:00-16:00	Tea break & Poster Viewing					
Parallel Sessions	Program	Speaker	Chair by Yan Liu	Program	Speaker	Chair by Tej Choksi
16:00-16:20	Oral Presentation (OP15)	Prof. Hao Yan <i>China University of Petroleum (East China)</i>	Engineering Pt-MO _x Interface to Boost Selective Oxidation of Polyols to Hydroxyl Acids	Oral Presentation (OP23)	Dr. Xinglong Zhang <i>IHPC, A*STAR</i>	Mechanistic Studies on the Formation of Bicyclic Lactones enabled by Pd-catalysis
16:20-16:40	Oral Presentation (OP16)	Dr. Jiajian Gao <i>ISCE², A*STAR</i>	Electrocatalysis: Understanding for Designing	Oral Presentation (OP24)	Dr. Benjamin W. J. Chen <i>IHPC, A*STAR</i>	Accelerating Explicit Solvent Models of Heterogeneous Catalysts with Machine Learning Interatomic Potentials
16:40-17:00	Oral Presentation (OP17)	Yiying Xiao <i>National University of Singapore</i>	Electrocatalytic amino acid synthesis from biomass-derivable keto acids over ball milled carbon nanotubes	Oral Presentation (OP25)	Dr. Jiyuan Liu <i>Nanyang Technological University</i>	Different Roles of Five d Orbitals in Molecule Adsorption and Activation on Transition Metal Oxides
17:00-17:20	Oral Presentation (OP18)	Xiangyu Xiao <i>University of Science and Technology of China</i>	Unexpected Redispersion Effect of Au Nanoclusters for Enormous Enhancement of Electrocatalytic Stability and Activity	Oral Presentation (OP26)	Lavie Rekhi <i>Nanyang Technological University</i>	Designing Stable, Active, and Selective Low-Dimensional Gold-Heterostructures for CO ₂ Reduction to C1 Products
17:20-17:45	Singapore Catalysis Society Annual General Meeting 2023					Prof. Ning Yan <i>President, SCS</i> Prof. Jason Yeo Dr. Jia Zhang
17:45-18:00	Poster Presentation Awards & Service Award Closing Ceremony					