

Program of ICEC2022

Plenary Lectures (Room A) (Japan Standard Time)

July 30th (Sat) 16:30-17:30 Room A

PL-1

**Investigating non thermal plasma catalysis
using in-situ methods**

Christopher Hardacre

**University of
Manchester**

July 31st (Sun) 9:00-10:00 Room A

PL-2

**Porous materials in CO₂ capture
& conversion**

Christopher W. Jones

**Georgia
Institute of
Technology**

Aug 1st (Mon) 9:00-10:00 Room A

PL-3

**Progress and future of automotive exhaust
gas purification catalysts: materials, parts
and R&D methods**

Hirohito Hirata

**Toyota Motor
Corporation**

Aug 2nd (Tue) 9:00-10:00 Room A

PL-4

**Studies on environmental catalysis for haze
and ozone precursors: NO_x and VOCs**

Junhua Li

**Tsinghua
University**

Plenary Lecture Speakers



Chris Hardacre
The University of Manchester
UK



Hirohito Hirata
Toyota Motor Corporation
Japan



Christopher W. Jones
Georgia Institute of Technology
USA



Junhua Li
Tsinghua University
China

Program of ICEC2022

Keynote Lectures (Room A-D) (Japan Standard Time)

July 31st (Sun) 10:20-11:00 Room A			
KN-1	Why Cu-zeolites are efficient and stable catalysts for NH₃-SCR of NO_x	Hong He	Chinese Academy of Sciences
July 31st (Sun) 11:20-12:00 Room B			
KN-2	Novel low-temperature emission control catalysts for lean and stoichiometric applications	Todd J. Toops	Oak Ridge National Laboratory
July 31st (Sun) 13:00-13:40 Room A			
KN-3	Controlling catalytic processes via catalytic acid and redox site manipulation for environmental applications	Michael Stockenhuber	The University of Newcastle
July 31st (Sun) 14:40-15:20 Room C			
KN-4	Reaction pathways of catalytic lignin conversion in ethanol	Yongdan Li	Aalto University
July 31st (Sun) 16:50-17:30 Room D			
KN-5	Scale-up and application of MOF "CALF-20" for CO₂ capture from Flue Gases	Stefan Marx	BAFS
Aug 1st (Mon) 10:20-11:00 Room B			
KN-6	Novel method to overcome the sulfur poisoning of vanadia catalyst for NO_x removal	Do Heui Kim	Seoul National University
Aug 1st (Mon) 13:00-13:40 Room A			
KN-7	From deNO_x to reNO_x: NH₃ generation by use of NO in combustion exhaust	Masaru Ogura	The University of Tokyo
Aug 1st (Mon) 14:40-15:20 Room B			
KN-8	Functional MOFs and their derivatives for clean energy production and waste conversion	Kevin C. W. Wu	National Taiwan University

Program of ICEC2022

Keynote Lectures

(Room A-D)

(Japan Standard Time)

Aug 1st (Mon) 16:50-17:30 Room C			
KN-9	Catalysis for the net zero emission challenge	Gabriele Centi	Università degli Studi di Messina
Aug 2nd (Tue) 10:20-11:00 Room A			
KN-10	CO₂-assisted activation of light alkanes	Jingguang Chen	Columbia University
Aug 2nd (Tue) 11:20-12:00 Room D			
KN-11	Understanding catalytic performance through physicochemical gradients on the reactor scale	Atsushi Urakawa	Delft University of Technology
Aug 2nd (Tue) 13:00-13:40 Room B			
KN-12	S-scheme heterojunction photocatalyst and its environmental application	Jiaguo Yu	China University of Geosciences
Aug 2nd (Tue) 14:00-14:40 Room A			
KN-13	Photo(electro)catalytic conversion of inorganic nitrogenous pollutants to dinitrogen	Wonyong Choi	Korea Institute of Energy Technology
Aug 2nd (Tue) 14:40-15:20 Room D			
KN-14	Catalyst development for CO₂ hydrogenation	Ning Yan	National University of Singapore
Aug 2nd (Tue) 15:50-16:30 Room C			
KN-15	Total oxidation of VOCs over cobalt oxide-based catalysts	Anne Giroir-Fendler	Université Claude Bernard Lyon
Aug 2nd (Tue) 16:50-17:30 Room A			
KN-16	Catalysts under dynamic reaction conditions for emission control and sustainable production of chemicals	Jan-Dierk Grunwaldt	Karlsruher Institut für Technologie

Keynote Lecture Speakers



Gabriele Centi
Università degli Studi di Messina
Italy



Jinquang Chen
Columbia University
USA



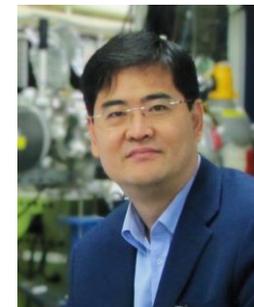
Wonyong Choi
Korea Institute of Energy Technology
Korea



Anne Giroir-Fendler
Université Claude Bernard Lyon
France



Jan-Dierk Grunwaldt
Karlsruher Institute of Technology
Germany



Hong He
Chinese Academy of Sciences
China



Do Heui Kim
Seoul National University
Korea



Yongdan Li
Aalto University
Finland



**Stefan
Marx BAFS
Germany**



**Masaru Ogura
The University of Tokyo
Japan**



**Michael Stockenhuber
The University of Newcastle
Australia**



**Todd J. Toops
Oak Ridge National Laboratory
USA**



**Atsushi Urakawa
Delft University of Technology
Netherlands**



**Kevin C. W. Wu
National Taiwan University
Taiwan**



**Ning Yan
National University of Singapore
Singapore**



**Jianguo Yu
China University of Geosciences
China**

Program of ICEC2022

Special Session of Applied Catalysis B

Session Coordinator: Hiromi Yamashita (Osaka University)
(Room D)
(Japan Standard Time)

Aug 1st (Mon) 13:00-13:10 Room D

Opening of Session
In-Sik Nam (Pohang University of Science and Technology)
Natalia Lee (Elsevier)

Aug 1st (Mon) 13:10-13:35 Room D

SIL-1	Catalyst advances for highly performing and durable anion exchange membrane fuel cells	William E. Mustain	University of South Carolina
--------------	---	---------------------------	-------------------------------------

Aug 1st (Mon) 13:35-14:00 Room D

SIL-2	Challenges of photocatalysis and their coping strategies	Hexing Li	Shanghai Normal University
--------------	---	------------------	-----------------------------------

Aug 1st (Mon) 14:00-14:25 Room D

SIL-3	Photocatalytic self-Fenton high-throughput mineralization of organic pollutants in water	Yongfa Zhu	Tsinghua University
--------------	---	-------------------	----------------------------

Aug 1st (Mon) 14:25-14:50 Room D

SIL-4	Heterogenous reaction mechanism of typical VOCs for SOA formation and implication for VOCs catalytic abatement	Taicheng An	Guangdong University of Technology
--------------	---	--------------------	---

Aug 1st (Mon) 14:50-15:15 Room D

SIL-5	Nanocatalyst engineering for CO₂ hydrogenation to formic acid as a promising hydrogen storage material	Kohsuke Mori	Osaka University
--------------	--	---------------------	-------------------------

Program of ICEC2022

Special Session of Applied Catalysis B

Session Coordinator: Hiromi Yamashita (Osaka University)
(Room D)
(Japan Standard Time)

Aug 1st (Mon) 15:50-16:15 Room D

SIL-6	Scale-up and demonstration of photocatalytic nanofiltration reactor for water purification and reuse	Polycarpos Falaras	Institute of Nanoscience and Nanotechnology
--------------	---	---------------------------	--

Aug 1st (Mon) 16:15-16:40 Room D

SIL-7	CO₂ reduction to fuels by water driven by photocatalysis	Junwang Tang	University College London
--------------	--	---------------------	----------------------------------

Aug 1st (Mon) 16:40-17:05 Room D

SIL-8	Novel multifunctional microbial photo-electro-catalytic systems for conversion of inorganic carbon to acetate using semiconductor z-scheme heterojunctions	Gianluca Li Puma	Loughborough University
--------------	---	-------------------------	--------------------------------

Aug 1st (Mon) 17:05-17:30 Room D

SIL-9	Modifications of porous Ti-based photocatalysts and applied in CO₂ photocatalytic reduction	Jinlong Zhang	East China University of Science and Technology
--------------	---	----------------------	--

Aug 1st (Mon) 17:30-17:55 Room D

SIL-10	Design and preparation of efficient heterogeneous catalysts for full oxidation of HCHO: from Pt-based to Ag-based catalysts	Feng-Shou Xiao	Zhejiang University
---------------	--	-----------------------	----------------------------

Aug 1st (Mon) 17:55-18:05 Room D

Closing of Session

Xenophon Verykios (University of Patras)

Program of ICEC2022 (Japan Standard Time)

		July 31st (Sun)				August 1st (Mon)				August 2nd (Tue)			
July 30th (Sat)		Room A	Room B	Room C	Room D	Room A	Room B	Room C	Room D	Room A	Room B	Room C	Room D
8:00		Registration				Registration				Registration			
9:00		PL-2 Christopher W. Jones				PL-3 Hirohito Hirata				PL-4 Junhua Li			
10:00		Break				Break				Break			
		KN-1 Hong He	OB01	OC01	OD01	OA16	KN-6 Do Heui Kim	OC18	OD18	KN-10 Jingguang Chen	OB33	OC35	OD23
			OB02	OC02	OD02	OA17		OC19	OD19		OB34	OC36	OD24
11:00		OA01	OB03	OC03	OD03	OA18	OB18	OC20	OD20	OA33	OB35	OC37	OD25
		OA02	KN-2 Todd J. Toops	OC04	OD04	OA19	OB19	OC21	OD21	OA34	OB36	OC38	KN-11 Atsushi Urakawa
		OA03		OC05	OD05	OA20	OB20	OC22	OD22	OA35	OB37	OC39	
12:00		Lunch				Lunch				Lunch			
13:00		KN-3 Michael Stockenhuber	OB04	OC06	OD06	KN-7 Masaru Ogura	OB21	OC23	Special Session Opening	OA36	KN-12 Jiaguo Yu	OC40	OD26
			OB05	OC07	OD07		OB22	OC24	SIL-01	OA37		OC41	OD27
		OA04	OB06	OC08	OD08	OA21	OB23	OC25	SIL-02	OA38	OB38	OC42	OD28
14:00	Registration	OA05	OB07	OC09	OD09	OA22	OB24	OC26	SIL-03	KN-13 Wonyong Choi	OB39	OC43	OD29
		OA06	OB08	OC10	OD10	OA23	OB25	OC27	SIL-04		OB40	OC44	OD30
		OA07	OB09	KN-4 Yongdan Li	OD11	OA24	KN-8 Kevin C. W. Wu	OC28	SIL-05	OA39	OB41	OC45	KN-14 Ning Yan
15:00		OA08	OB10		OD12	OA25		OC29		OA40	OB42	OC46	
		Break				Break				Break			
16:00	Opening	OA09	OB11	OC11	OD13	OA26	OB26	OC30	SIL-06	OA41	OB43	KN-15 Anne Giroir- Fendler	OD31
		OA10	OB12	OC12	OD14	OA27	OB27	OC31	SIL-07	OA42	OB44		OD32
	PL-1 Christopher Hardacre	OA11	OB13	OC13	OD15	OA28	OB28	OC32	SIL-08	OA43	OB45	OC47	OD33
17:00		OA12	OB14	OC14	KN-5 Stefan Marx	OA29	OB29	KN-9 Gabriele Centi	SIL-09	KN-16 Jan-Dierk Grunwaldt	OB46	OC48	OD34
		OA13	OB15	OC15		OA30	OB30		SIL-10		OB47	OC49	OD35
		OA14	OB16	OC16	OD16	OA31	OB31	OC33	Closing	OA44	OB48	OC50	OD36
		OA15	OB17	OC17	OD17	OA32	OB32	OC34		OA45	OB49	OC51	OD37
18:00		Break				Break				Break			
19:00		Short Presentation of Poster (Room A) in-person only	Poster P01 - P40 (Room P-1)	Poster P41 - P83 (Room P-2)		Short Presentation of Poster (Room A) in-person only	Poster P84 - P130 (Room P-1)	Poster P131 - P175 (Room P-2)		Closing			
20:00													

Presentation time including Q&A (min)	
Plenary	60
Keynote	40
Special Invited	25
Invited	20
Oral	20
Poster	90
Short Presentation	5