International



# 5th Ertl Symposium on

# Catalytic & Adsorption Reactions in chemical ProcessEs



I hosted by GIST Ertl Center & FHI der MPG

# **CARPE** Diem

ertl-symposium.org





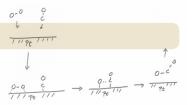
#### "CARPE Diem"

#### Introduction

At the beginning of the 21<sup>st</sup> century our world is facing serious problems with regards to environment, climate, energy conversion, raw materials, water and food. All these global problems are seeking scientific solutions, especially from physical chemistry and electrochemistry, and in this connection analysis and dynamics are of tremendous importance, in particular Catalytic and Adsorption Reactions in chemical ProcessEs. It is expected that the 5<sup>th</sup> Ertl symposium will provide a good opportunity in these attempts, and we wish great success to all the people involved in this enterprise.

## **Honorary Chair**

Gerhard Ertl FHI der MPG & GIST Ertl Center



#### **Organizing and Scientific Committee**

Beatriz Roldan Cuenya FHI der MPG

Andreas Friedrich DLR

Renate Hiesgen Esslingen University of Applied Sciences

Sang Hoon Kim KIST Co-Chair

Young Dok Kim SKKU

**Hye Jin Lee** Kyungpook National University

Jaeyoung Lee GIST Ertl Center & SESnEE Chair

Robert Schlögl FHI der MPG & MPI for Chemical Energy Conversion Co-Chair

Sunghyun Uhm Institute for Advanced Engineering

Martin Wolf FHI der MPG

### **Symposium Secretariat**

Dorothea Damm FHI der MPG
Hansaem Jang GIST Ertl Center

Email ertl@qist.ac.kr/damm@fhi-berlin.mpg.de

Fax +82 62 715 2434 (Korea)

+49 30 8413 4401 (Germany)



# **Key Topics**

- How to create H<sub>2</sub> from CO<sub>2</sub>?
- Water Oxidation and vice versa
- Ammonia Synthesis and vice versa
- Reforming and Electrochemical reforming
- Electrostatic Ion Adsorption
- Spatiotemporal Pattern Formation
- Computational Electrochemistry

#### Award Lectures (2018 Ertl Prize Winner)

Jinsub Choi Inha University

Zhifeng Ding University of Western Ontario

### Keynote, Invited and Contributed Speakers (31 October 2018)

Chang Hyuck Choi GIST

Yuxiao Ding MPI for Chemical Energy Conversion

Jiangkun Du China University of Geosciences (Wuhan)

Hyung Chul Ham KIST
Sujik Hong GIST
Beomgyun Jeong KBSI
Hyungjun Kim KAIST
Jongsik Kim KIST

Seoni Kim Seoul National University

Youngkook Kwon KRICT

Chang Hyun Lee Dankook University
Gibaek Lee Yeungnam University

Kiyoung Lee Kyungpook National University
Jongwoo Lim Seoul National University

Yang-Ming Lin MPI for Chemical Energy Conversion
Olaf Magnussen Christian-Albrechts University Kiel
Daniel Mandler The Hebrew University of Jerusalem

Byoung Koun Min KIST Kyung-Eun Min GIST

Hirohisa Nagatani Kanazawa University Naoya Nishi Kyoto University

Bui Thi Phuong Quynh Ho Chi Minh City University of Food Industry

Julie Anne D. del Rosario UP Diliman

Robert Schlögl FHI der MPG & MPI for Chemical Energy Conversion

Hyun Ook Seo Sangmyung University

Dongyoon Shin MPI for Chemical Energy Conversion

Woonsup Shin Sogang University

Marc F. Tesch MPI for Chemical Energy Conversion

Yujin Tong FHI der MPG

Hamilton Varela University of São Paulo

Jung-Je Woo KIER

Boon Siang Jason Yeo National University of Singapore

#### Abstract Submission by 10 October 2018

150-300 words with only ONE image (figure or photo or table) in WORD file

E-mail submission: ertl@gist.ac.kr

#### **Special Issue**

The symposium proceedings will be published in a special issue of Catalysis Today on Catalytic and Adsorption Reactions in chemical ProcessEs. Articles will be subject to the standard peer review for an Elsevier journal. The Catalysis Today website is active for this special issue (VSI: CARPE) and contributions can be uploaded starting 25 October 2018. The deadline for submission of manuscripts is 07 February 2019.

Guest Editors: Jaeyoung Lee (GIST), Sang Hoon Kim (KIST), Chang Hyuck Choi (GIST) Catalysis Today: IF = 4.667, mrnIF = 92.85, Applied Chemistry Category = 6/71

### Conference Fee & On-line Registration: https://ertl.fhi.tools/registration/

▶ Regular participants: 350 Euro (450,000 KRW) Students: 200 Euro (250,000 KRW)

The registration fee includes a copy of the book of abstracts, Tutorial Course and Coffee Break Payment: in CASH or Credit Card at the registration desk upon arrival.

#### **Conference Venue**

The 5<sup>th</sup> Ertl Symposium will be held at the Kimdaejung convention center (https://www.kdjcenter.or.kr/eng/) The hall has state of-the-art conference facilities and is an ideal meeting location.

KDJ Center can be reached by bus, train, or airplane from Incheon International Airport and is well connected by plane (40 min. from Gimpo), high-speed train (90 min. from Gwangmyeong Station) and express bus (3 hrs 30 min. from Seoul).



# **Program**

Time		Sunday (25 Nov.)	Monday (26 Nov.)	Tuesday (27 Nov.)	Wednesday (28 Nov.)
08:00 - 09:00	60			Registration	
09:00 - 10:30	90		Sang Hoon Kim Tutorial Course AP-XPS in/for Electrochemistry Beomgyun Jeong	Chang Hyuck Choi Invited 8 / 25 Naoya Nishi Contributed Oral 2 / 20 Gibaek Lee Contributed Oral 3 / 20 Julie Anne del Rosario Invited 9 / 25 Beomgyun Jeong	Beomgyun Jeong Keynote 6 / 30 Yujin Tong Contributed Oral 5 / 20 Hamilton Varela Contributed Oral 6 / 20 Dongyoon Shin Contributed Oral 7 / 20 Sujik Hong
10:30 - 11:00	30	Arrival Coffee Break		ı	
11:00 - 12:35	95		Hye Jin Lee Opening Address / 5 Jaeyoung Lee Award Lecture / 40 Jinsub Choi Invited 1 / 25 Hirohisa Nagatani Invited 2 / 25 Jiangkun Du	Hirohisa Nagatani Award Lecture / 40 Zhifeng Ding Keynote 3 / 30 Byoung Koun Min Invited 10 / 25 Hyun Ook Seo	Youngkook Kwon Invited 16 / 25 Chang Hyuck Choi Invited 17 / 25 Marc F. Tesch Invited 18 / 25 Kiyoung Lee Contributed Oral 8 / 20 Jung-Je Woo
12:35 - 14:15	100		Lui	nch	Closing Remarks / 10 Sang Hoon Kim
14:15- 15:55	100		Hyun Ook Seo Keynote 1 / 30 Kyung-Eun Min Invited 3 / 25 Seoni Kim Contributed Oral 1 / 20 Yangming Lin Invited 4 / 25 Jongsik Kim	Yujin Tong Keynote 4 / 30 Daniel Mandler Invited 11 / 25 Youngkook Kwon Contributed Oral 4 / 20 Yuxiao Ding Invited 12 / 25 Chang Hyun Lee	
15:55- 16:30	35	Technical &	Coffee and Tea Break (Photograph Time on Monday and Special Event on Tuesday)		Personal Excursion
16:30 - 18:15	105	Culture Tour (GIST & ACC)	Boon Siang Jason Yeo Keynote 2 / 30 Olaf Magnussen Invited 5 / 25 Hyung Chul Ham Invited 6 / 25 Bui Thi Phuong Quynh Invited 7 / 25 Hye Jin Lee	Hamilton Varela Keynote 5 / 30 Woonsup Shin Invited 13 / 25 Boon Siang Jason Yeo Invited 14 / 25 Hyungjun Kim Invited 15 / 25 Jongwoo Lim  Award Ceremony / 15 Jaeyoung Lee	(Gwangju & Seoul)
18:30 - 21:00	150	Registration	Poster Session	Symposium Dinner (Ramada Plaza Gwangju)	

#### **Supports and Sponsors**





























#### **Accommodation**

Special Rates for the participants of the 5th Ertl Symposium (Promo code: ERTL)

- Ramada Plaza Gwangju: 160,000 KRW (ca.123 EUR) http://www.ramadagwangju.com/eng/main/main.php, E-mail: resv@ramadagwangju.com

Standard room rate: per night & person incl. tax, service charge & breakfast.

Reservations should be made individually. Other hotels ( $\star\star$  to  $\star\star\star\star\star$ ) near the venue are also available. Currency: 1 EUR = ca. 1300 KRW

### **About Gwangju**

Gwangju, also called the City of Light, with a population of 1.5 million, is the fifth largest city in South Korea. Gwangju is situated in Southwestern part of South Korea, about 300 kilometers south of Seoul and can be easily reached from other major cities in South Korea. Gwangju has long been renowned for its tradition, customs, culture and arts. It is home to the Gwangju Biennale,



held every two years to celebrate the worldwide artistic accomplishments by accommodating works of both Asian and contemporary Western art. The city has an important place in the history of South Korea's democracy and human-rights movement.