International symposium on heterogeneous catalysis for sustainable energy and chemical production -6th international symposium of Institute for Catalysis-

Date: February 4th(Mon)-5th(Tue), 2019
Venue: Conference room at 5th floor, Institute for Catalysis, Hokkaido University (http://www.cat.hokudai.ac.jp/access-e.html)
Organizer: Institute for catalysis, Hokkaido University
Cooperation: 1) Japan Science & Technology agency (JST)
2) Research Division of Catalytic Biomass Conversion, Catalysis Society of Japan
3) Research and Education Center for Robust Agriculture, Forestry and Fisheries Industry, Hokkaido University
4) STAC-10 Project, Laboratory for Materials and Structures, Institute of Innovative Research, Tokyo Institute of Technology
Sponsor: Shimadzu Corporation

Chair: Dr. Kiyotaka Nakajima (Institute for Catalysis, Hokkaido University)
Co-chair: Prof. Dr. Emiel J.M. Hensen (Eindhoven University of Technology)
Secretary: Dr. Abhijit Shrotri

Description: The emission of CO_2, a powerful greenhouse gas (GHG), is the leading cause of global warming. To counter this issue, Japan Science & Technology launched the Advanced Low Carbon Technology Research and Development Program in 2010, which was aimed towards the development of technologies that reduce CO_2 emission in the atmosphere. This symposium will highlight the fundamental and applied research topics in the field of heterogeneous catalysis for sustainable production of energy and chemicals from renewable resources with the aim of minimizing CO_2 emission.

Plenary lecture, 60 min: 50 min for presentation, 10 min for discussion
Invited talk, 30 min: 25 min for presentation, 5 min for discussion

Monday, February 4th

10:00-10:10 Opening remark
10:10-11:10 Plenary Lecture 1 (Prof. Dr. Bert Weckhuysen, Utrecht University)
Making & Breaking of Chemical Bonds: Turning CO_2 and Waste into Chemicals
11:10-11:40 Invited talk (Dr. Keigo Kamata, Tokyo Institute of Technology)
Development of Crystalline Mixed Metal Oxide Catalysts for Biomass Conversion
11:40-12:10 Invited talk (Dr. Takashi Hisatomi, Shinshu University)
Heterogeneous Photocatalysts and Reaction Systems for Renewable Hydrogen Production via Water Splitting

12:10-13:00 Lunch

13:00-14:00 Plenary Lecture 2 (Prof. Dr. Emiel J.M. Hensen, TU/e)
Valorization of lignocellulosic biomass: from catalytic chemistry to novel processes

14:00-14:30 Invited talk (Prof. Mizuki Tada, Nagoya University)
XAFS Imaging of Solid Catalysts
14:30-15:00 Invited talk (Prof. Kazuhiro Takanabe, The University of Tokyo)
Electrolyte engineering for advanced water splitting

15:00-15:30 Break

15:30-16:00 Invited talk (Dr. Hiroshi Sano, Mitsubishi Chemical Corporation)
Biomass plastics and biodegradable plastics, solution for the future?
16:00-16:30 Invited talk (Dr. Kiyotaka Nakajima, Hokkaido University)
Smart HMF conversion to FDCA and its carboxylates with supported Au catalyst
16:30-17:00 Invited talk (Prof. Michikazu Hara, Tokyo Institute of Technology)
HMF conversion into polymer monomers
17:00-17:30 Invited talk (Prof. Atsushi Fukuoka, Hokkaido University)
Catalytic depolymerization of cellulose and chitin

Banquet (Restaurant at ICAT or at the hotel near Sapporo Station)

Tuesday, February 5th

9:00-10:00 Plenary Lecture 3 (Prof. Keiichi Tomishige, Tohoku University)
Heterogeneous deoxydehydration catalyst for conversion of polyols to chemicals

10:00-10:20 Break

10:20-10:50 Invited talk (Dr. Takato Mitsudome, Osaka University)
Green Sustainable production of Amines from Amides
10:50-11:20 Invited talk (Dr. Toshiyuki Yokoi, Tokyo Institute of Technology)
Control of heteroatom distribution in zeolite framework and its impact on catalytic properties
11:20-11:50 Invited talk (Prof. Takao Masuda, Hokkaido University)
Separation of Biomass to Each Component of Lignocellulose in Chemical Reaction Engineering Approach

11:50- Closing remark

Registration:

Please send e-mail to Kiyotaka Nakajima with your name, full affiliation, phone number, email address, and whether or not to attend the banquet. Deadline for registration of banquet is January 18th.

Conference fee: Free of charge
Banquet fee: 4,000 JPY

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