

C-2 Catalyst / Battery

Representative Organizer

Masakuni OZAWA (Nagoya University)

Co-organizers

Tomohiko ASAOKA (Toyota Central Research and Development Labs., Inc.)

Takeshi OHWAKI (Meijo University)

Shinji KAWASAKI (Nagoya Insititute of Technology)

Masaaki HANEDA (Nagoya Insititute of Technology)

Oral Session March 27 (Fri.) Room 5

Chair : Masakuni Ozawa (Nagoya University)

13:00 C2-I-01 **Improvement of Photocatalytic Activities of Nitrogen Doped Titanium Dioxides under Visible-Light Irradiation and the Applications for Environmental Purifications** [Invited Lecture]

¹Takeshi Ohwaki, ²Shu Saeki, ²Koyu Aoki, ²Takeshi Morikawa

1 DEPARTMENT OF APPLIED CHEMISTRY, MEIJO UNIVERSITY

2 MATERIALS PHOTO CONVERSION LAB., TOYOTA CENTRAL R&D LABS., INC.

13:30 C2-I-02 **Study of Plasma-Assisted Catalysis for VOC Abatement** [Invited Lecture]

Yoshiyuki Teramoto, Hyun-ha Kim, Atsushi Ogata, Nobuaki Negishi

RESEARCH INSTITUTE FOR ENVIRONMENTAL MANAGEMENT TECHNOLOGY, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)

Chair : Shinji Kawasaki (Nagoya Insititute of Technology)

14:00 C2-I-03 **Degradation Analyses of Li-Ion Batteries at Extreme Conditions** [Invited Lecture]

Tsuyoshi Sasaki

BATTERY LABORATORY, TOYOTA CENTRAL R&D LABS.

14:30 C2-O-01 **Novel Hierarchical Structure of CuO/NiO Nanowire Arrays for High Performance Lithium Ion Battery**

Shu-Wei Yang, Chuan-Pu Liu

DEPARTMENT OF MATERIAL SCIENCE AND ENGINEERING, NATIONAL CHENG KUN UNIVERSITY

14:45 C2-O-02 **A Computational Investigation of Metal Nanocluster Structure and Electronic Property**

¹Tetsunori Morishita, ^{1,2,5}Tomonaga Ueno, ^{1,2,3,4,5}Nagahiro Saito

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2 GREEN MOBILITY COLLABORATIVE RESEARCH CENTER, NAGOYA UNIVERSITY

3 ECO TOPIA SCIENCE INSTITUTE, NAGOYA UNIVERSITY

4 INSTITUTE OF INNOVATION OF FUTURE SOCIETY, NAGOYA UNIVERSITY

5 JST-CREST

Chair : Takeshi Ohwaki (Meijo University)

15:00 C2-O-03 **Scalable InN Nanowires for High Capacity Lithium Ion Battery**

Yin-Wei Cheng, Chung-Wei Chang, Chuan-Pu Liu

DEPARTMENT OF MATERIAL SCIENCE AND ENGINEERING, NATIONAL CHENG KUNG UNIVERSITY

15:15 C2-O-04 **Na Ion Battery Electrode Properties of Graphene-Like Molecules Derived from Polycyclic Aromatic Hydrocarbons**

Taichi Hayakawa, Hayong Song, Shinji Kawasaki

NAGOYA INSTITUTE OF TECHNOLOGY

15:30 C2-O-05 **Li Ion Transport in Tavorite-Type LiMSO₄F(M:Mg,Ca,Sr) by DFT Calculations**
¹[Mayumi Kimura](#), ^{1,2}Randy Jalem, ^{1,2,3}Masanobu Nakayama, ⁴Toshihiro Kasuga
1 DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING, NAGOYA INSTITUTE OF TECHNOLOGY
2 UNIT OF ELEMENTS STRATEGY INITIATIVE FOR CATALYSTS & BATTERIES (ESICB), KYOTO UNIVERSITY
3 JAPAN SCIENCE AND TECHNOLOGY AGENCY, PRESTO
4 DEPARTMENT OF FRONTIER MATERIALS, NAGOYA INSTITUTE OF TECHNOLOGY

Chair : Masaaki Haneda (Nagoya Institute of Technology)

15:45 C2-O-06 **Synthesis and Characterization of Co-K/K_xTi₂O₅ as Novel NO_x Storage and Reduction Catalyst**
[Ruoyan Yang](#), Yanshan Gao, Qiang Wang
COLLEGE OF ENVIRONMENTAL SCIENCE AND ENGINEERING, BEIJING FORESTRY UNIVERSITY

16:00 C2-O-07 **Electrochemical Tuning of Nanocrystal/Porous Metal Composite Structures Using Glassy Alloys**
¹Katsutoshi Kobayashi, ¹Masakuni Ozawa, ¹Toshinobu Yogo, ²[Shin-ichi Yamaura](#)
1 ECOTOPIA SCIENCE INSTITUTE, NAGOYA UNIVERSITY
2 INSTITUTE FOR MATERIALS RESEARCH, TOHOKU UNIVERSITY

16:15 C2-O-08 **New Elimination System of Environmental Pollution Ions Using Unique Electrochemical Adsorption Properties of Single-Walled Carbon Nanotubes**
Masayuki Yamada, Yoshimitsu Taniguchi, Yukihiro Yoshida, [Shinji Kawasaki](#)
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING, NAGOYA INSTITUTE OF TECHNOLOGY

16:30 C2-O-09 **CO Oxidation Reaction on Ceria-Zirconia Supported Cu Catalyst**
[Masatomo Hattori](#), Masaaki Haneda
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