

A-6 Solution Plasma

Representative Organizer

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Pavel BAROCH (University of West Bohemia, Czech Republic)

MyeongHoon LEE (Korea Maritime University, Korea)

Marek KOCIK (The Szewalski Institute of Fluid Flow Machinery Polish Academy of Sciences, Poland)

Oral Session 1 March 28 (Sat.) Room 1

Chair : Eugen Stamate (Technical University of Denmark)

- 8:50 A6-I-01 **Mineralization of Persistent Organic Compounds by Plasma Contacting with Water Surface**
[Invited Lecture]

Koichi Yasuoka
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, TOKYO INSTITUTE OF TECHNOLOGY
- 9:20 A6-O-01 **Giant Seebeck Coefficients for the Graphene/h-BN Superlattices**
^{1,2}Jun Nakamura, ^{1,2}Yushi Yokomizo
1 DEPARTMENT OF ENGINEERING SCIENCE, THE UNIVERSITY OF ELECTRO-COMMUNICATIONS (UEC-TOKYO)
2 CREST, JAPAN SCIENCE AND TECHNOLOGY AGENCY (JST-CREST)
- 9:35 A6-O-02 **Solution Plasma Sputtering Synthesis of PtAu and PdAu Alloy Nanoparticles and Their Electrochemical Activities**

¹Xiulan Hu, ¹Jianbo Zhang, ¹Junjun Shi, ¹Xiaodong Shen, ²Nagahiro Saito
1 COLLEGE OF MATERIALS SCIENCE AND ENGINEERING, NANJING TECH UNIVERSITY
2 PHYSICS AND ENERGY ENGINEERING, GRADUATE SCHOOL OF ENGINEERING, NAGOYA UNIVERSITY
- 9:50 A6-O-03 **Production of Chitosan by Applying Solution Plasma Process**

^{1,2}Ratana Rujiravanit, ¹Orathai Pornsunthorntawe, ¹Chaiyapruk Katepetch, ¹Chutima Vanichvattanadecha, ¹Maneeakarn Kantakanun, ³Nagahiro Saito
1 PETROLEUM AND PETROCHEMICAL COLLEGE, CHULALONGKORN UNIVERSITY
2 CENTER OF EXCELLENCE ON PETROCHEMICAL AND MATERIALS TECHNOLOGY, CHULALONGKORN UNIVERSITY
3 DEPARTMENT OF MATERIALS, PHYSICS AND ENERGY ENGINEERING, GRADUATE SCHOOL OF ENGINEERING, NAGOYA UNIVERSITY
- 10:05 A6-O-04 **Surface Dielectric Barrier Discharge Generated by the Liquid Electrodes for Material Treatment**

David Pavlinak, Oleksandr Galmiz, Miroslav Zemanek, Mirko Cernak
DEPARTMENT OF PHYSICAL ELECTRONICS, MASARYK UNIVERSITY

Oral Session 2 March 29 (Sun.) Room 7

Chair : Koichi Yasuoka (Tokyo Institute of Technology)

- 9:05 A6-O-05 **Direct and Indirect NO_x Reduction by Atmospheric Pressure Plasma**
Eugen Stamate, Feisal Kroushawi, Cornelia Irimiea
DEPARTMENT OF ENERGY CONVERSION AND STORAGE, TECHNICAL UNIVERSITY OF DENMARK
- 9:20 A6-O-06 **Preparation of Reducing Sugar from Cellulose by Solution Plasma Process (SPP)**
¹Isarawut Prasertsung, ^{2,3}Pattharaporn Chutinate, ⁴Nagahiro Saito, ^{2,3}Siriporn Damrongsakkul
1 CHEMICAL ENGINEERING PROGRAM, FACULTY OF ENGINEERING, NARESUAN UNIVERSITY
2 PLASMA TECHNOLOGY AND NUCLEAR FUSION RESEARCH UNIT, CHULALONGKORN UNIVERSITY
3 DEPARTMENT OF CHEMICAL ENGINEERING, FACULTY OF ENGINEERING, CHULALONGKORN UNIVERSITY
4 DEPARTMENT OF MOLECULAR DESIGN AND ENGINEERING, NAGOYA UNIVERSITY
- 9:35 A6-O-07 **Surface Modification of Materials Treated by Nanosecond Pulsed Driven Electrical Discharges in Liquids**
¹Camelia Miron, ¹Jie Zhuang, ²Ion Sava, ²Camelia Hulubei, ¹Klaus-Dieter Weltmann, ¹Juergen F.Kolb
1 RESEARCH PROGRAMME BIOELECTRICS, LEIBNIZ INSTITUTE FOR PLASMA SCIENCE AND TECHNOLOGY
2 PETRU PONI" INSTITUTE OF MACROMOLECULAR CHEMISTRY
- 9:50 A6-O-08 **Direct Synthesis of Nitrogen-Doped Carbon Materials via Solution Plasma: The Role of Precursor Chemistry**
¹Gasidit Panomsuwan, ^{1,2}Takahiro Ishizaki
1 DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING, SHIBAURA INSTITUTE OF TECHNOLOGY
2 THE CORE RESEARCH FOR EVOLUTIONAL SCIENCE AND TECHNOLOGY (CREST), JAPAN SCIENCE AND TECHNOLOGY (JST)
- 10:05 A6-O-09 **Effect of Single and Dual Hetero-Atom Doping in Carbon Nanoparticles for Enhancing Oxygen Reduction Catalytic Activity**
¹Dae-Wook Kim, ²Oi Lun Li, ²Nagahiro Saito
1 DEPARTMENT OF ENVIRONMENTAL SCIENCE & TECHNOLOGY, SHINSHU UNIVERSITY
2 DEPARTMENT OF MATERIALS, PHYSICS AND ENERGY ENGINEERING, NAGOYA UNIVERSITY

Chair : Xiulan Hu (Nanjing Tech University)

- 15:50 A6-I-02 **Development of Size and Shape-Controlled Electrocatalysts Using Solution Plasma Process**
[Invited Lecture]
¹Sang-Yul Lee, ¹Sung-Min Kim, ²Jung-Wan Kim
1 DEPARTMENT OF MATERIALS ENGINEERING, KOREA AEROSPACE UNIVERSITY
2 DIVISION OF BIOENGINEERING, UNIVERSITY OF INCHEON
- 16:20 A6-O-10 **Efficient Hydrogen Peroxide Generation Using Plasma with Droplets**
Nozomi Takeuchi, Toshikazu Ishibashi
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, TOKYO INSTITUTE OF TECHNOLOGY
- 16:35 A6-O-11 **Generation of Hydroxyl Radicals in Water by Gas/Liquid Phase Pulsed Discharge Plasma**
Kefeng Shang, Jie Li, Dan Yao, Nan Jiang, Na Lu, Yan Wu
INSTITUTE OF ELECTROSTATICS & SPECIAL POWER, DALIAN UNIVERSITY OF TECHNOLOGY
- 16:50 A6-O-12 **3D Integrated Micro-Solution Plasma in 3D-Printed Artificial Porous Dielectric Materials**
Yuhei Ogura, Naoya Sotoda, Kenji Tanaka, Tatsuru Shirafuji
DEPARTMENT OF PHYSICAL ELECTRONICS AND INFORMATICS, OSAKA CITY UNIVERSITY
- 17:05 A6-O-13 **Solution Plasma Processing in Aqueous Solutions: Spectroscopic Analyses for Material Syntheses**
Hiroharu Yui, Kenta Akaike, Takuya Chiyoda, Motohiro Banno
DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, TOKYO UNIVERSITY OF SCIENCE
- 17:20 A6-O-14 **Generation of Low Intensity Plasma Discharges in Liquids**
P.Baroch, T.Tölg, A.D.Pajdarová
DEPARTMENT OF PHYSICS AND NTIS-EUROPEAN CENTRE OF EXCELLENCE, UNIVERSITY OF WEST BOHEMIA