

【PROGRAM: Poster Session】

July 7th (Tue.) 10:00-15:30 July 8th (Wed.) 10:00-15:00

Conference Room 1-4 & Lobby, 2F
Conference Room 201-203, 2F
Hitotsubashi Hall, Hitotsubashi University

A -Sustainability-

Energy/Resources

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

A-1-01 **The sustainability of the production of biomass-based energy in Hungary and Japan**

Edit Csefalvay¹, Gyula Grof¹, Istvan T. Horvath²
(¹Budapest Univ. of Technology and Economics, ²City Univ. of Hong Kong)

A-1-02 **Preparation and electrochemical behaviors of activated carbon electrodes from *Amygdalus pedunculata* shell**

Yu Shu¹, Yehua Shen², Hiroshi Uyama¹
(¹Osaka Univ., ²Northwest Univ.)

Reactive Media

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

A-2-01 **Surface and Antimicrobial Properties of Citronellol Based Ionic Liquids**

Vinay Chauhan, Sukhprit Singh
(Guru Nanak Dev University)

A-2-02 **Extraction Phytochemical Compound from Palm Mesocarp Fiber (*Elaeis Guineensis*) Using Supercritical CO₂**

Achmad Dwitama Karisma¹, Deny R. Aszari¹, Karina A. P. Putri¹, Siti Machmudah¹, Sugeng Winardi¹, Wahyudiono², Hideki Kanda², Motonobu Goto²
(¹Sepuluh Nopember Institute of Technology, ²Nagoya University)

A-2-03 **Novel stationary phases of surface-confined ionic liquids of carbon dioxide supercritical fluid chromatography**

Guor-Tzo Wei, Kai-Ti Chen Chang, Cheng-Chih Hsu
(National Chung Cheng Univ.)

A-2-04 **Cobalt nanoparticle synthesis via reductive supercritical hydrothermal conditions**

Gimyeong Seong, Tadafumi Adschiri
(Tohoku Univ.)

A-2-05 **Hydrothermal continuous flow synthesis of hybrid nanoparticles**

Henrik Hellstern, Martin Bremholm, Bo B. Iversen
(Aarhus Univ.)

Polymers

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

A-3-01 **Fluoride-Transfer Controlled Polymerization for Poly(p-aryleneethylene)s**

Junko Kakinuma, Satoru Watanabe, Asahi Motoshige, Tomokazu Iyoda, Takanobu Sanji
(JST-ERATO Iyoda Supra-Integrated Material Project and Tokyo Institute of Technology)

A-3-02 **Syntheses of poly(phenyleneethynylene)s with oligoether side-chains by fluoride transfer polymerization**

Keiji Nose¹, Katsuya Noji¹, Tomokazu Iyoda^{1,2}, Takanobu Sanji²
(¹Tokoyo Inst. Tech., ²JST-ERATO Iyoda Supra-Integrated Material Project)

A-3-03 **Block Copolymer containing Segmental Poly(L-lactide) and Poly(butylene succinate) Side Chains: A Challenge from Controlled Comb-like Structure to Molecular Assembly**

Raksit Supthanyakul¹, Narin Kaabbuathong², Suwabun Chirachanchai¹
(¹Chulalongkorn University, ²PTT Public Company Limited)

A-3-04 **Electrosynthesis of Porous Polypyrrole Materials Using Acoustically Prepared Foam Template**

Yuka Sueyasu, Koji Nakabayashi, Mahito Atobe
(Yokohama National Univ.)

Special Matters

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

A-4-01 **The production processes of organic acids by fermentation without pH neutralization waste using the acid-tolerant fission yeast**

Futoshi Hara, Hiroki Tanaka, Shuichiro Kimura, Nobuyuki Kasahara, Takayuki Tanaka
(Asahi Glass Co., Ltd.)

A-4-02 **Hydrothermal extraction of xanthone and total phenolic compounds from mangosteen (*Garcinia mangostana*) Pericarp**

Qifni Yasa' Ash Shiddiqi¹, Achmad Dwitama Karisma¹, Siti Machmudah¹, Sugeng Winardi¹, Wahyudiono², Hideki Kanda², Motonobu Goto²
(¹Sepuluh Nopember Institute of Technology, ²Nagoya University)

A-4-03 **Recovery of Rare Earth Element from Industrial Motors with Less Wastes Generation**

Shohei Kanamura, Koji Mizuguchi, Norihito Togashi, Yutaka Maruyama, Yoshihiko Nakada, Sueyoshi Mizuno
(Toshiba Corporation)

A-4-04 **Development of a safe and environmentally friendly synthetic process to optically active heterocyclic fused-ring amines**

Sayuri Hirano, Masatoshi Yamada, Mitsuhsa Yamano
(Takeda Pharmaceutical Company Limited)

A-4-05 **Production of Bio-based 1,3-Butadiene by Selective Dehydration of 2,3-Butanediol over Alkali Metal Phosphate Supported on Silica Catalysts**

Daijiro Tsukamoto, Satoshi Sakami, Masateru Ito, Katsushige Yamada, Tetsu Yonehara
(Toray Industries, Inc.)

A-4-06 **Magnetic Thermoresponsive Chitosan: A Novel Approach for Entrapment-Release Dual Functional Biosensor**

Chutamart Pitakchatwong, Kanitha Patarakul, Suwabun Chirachanchai
(Chulalongkorn University)

A-4-07 **Synthesis of Mesoporous Silica-Phosphoric Acid Hybrid and Its Adsorption Ability**

Fumitake Okabe, Takahiro Takei, Nobuhiro Kumada
(Univ. of Yamanashi)

Organic Synthesis

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

A-5-01 **Direct Alkenylation of Phenylphosphine Sulfides through Regioselective C-H Bond Cleavage**

Yuki Yokoyama¹, Yuto Unoh¹, Koji Hirano¹, Tetsuya Satoh^{1,2}, Masahiro Miura¹
(¹Osaka Univ., ²JST, ACT-C)

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- A-5-02 **A Direct Approach to Acridine Derivatives by Cyclization of Tritylamines Promoted by Copper-Salt**
Ryosuke Morioka¹, Koji Hirano¹, Tetsuya Satoh^{1,2}, Masahiro Miura¹
(¹Osaka Univ., ²JST, ACT-C)
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- A-5-03 **Development of New Hypervalent Iodine Catalytic Method in Oxidative Coupling Reactions**
Toshifumi Dohi, Yasuyuki Kita
(Ritsumeikan University)
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- A-5-04 **Task-specific ionic liquid and CO₂ cocatalysed efficient hydration of propargylic alcohols α -hydroxy ketones**
Yanfei Zhao, Zhimin Liu
(Chinese Academy of Sciences)
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- A-5-05 **Catalytic cycloisomerization of various 1,n-dienes via chain walking by using palladium complexes**
Taro Hamasaki, Fumitoshi Kakiuchi, Takuya Kochi
(Keio Univ.)
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- A-5-06 **One-pot Synthesis of Amines from Carboxylic acids via Self-propagative Lossen rearrangement**
Naoya Ohtsuka, Yujiro Hoshino, Kiyoshi Honda
(Yokohama National Univ.)
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- A-5-07 **Synthesis of Trifluorovinyl Zinc from Tetrafluoroethylene with Low Global Warming Potential and Its Transformation into Organofluorine Compounds**
Kotaro Kikushima¹, Masato Ohashi¹, Sensuke Ogoshi^{1,2}
(¹Osaka Univ., ²ACT-C, JST)
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- A-5-08 **Indium-Catalyzed Formal N-Arylation and N-Alkylation of Pyrroles with Amines**
Kyohei Yonekura, Kenji Oki, Teruhisa Tsuchimoto
(Meiji Univ.)
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- A-5-09 **Synthesis and Applications of Well-defined Functional Polymer Particles by Living Dispersion (Co)polymerization of Allene Derivatives**
Akira Yamauchi¹, Yoshiyuki Oguchi², Wakiya Takechi², Hiroshi Yamauchi², Hiroki Nishiyama¹, Shinsuke Inagi¹, Ikuyoshi Tomita¹
(¹Tokyo Institute of Technology, ²Sekisui Chemical Co., Ltd.)
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- A-5-10 **Development of Ruthenium-Catalyzed Monoalkenylation of Aromatic Ketones via Chemoselective Cleavage of Carbon-Oxygen Bonds**
Hikaru Kondo, Nana Akiba, Takuya Kochi, Fumitoshi Kakiuchi
(Keio Univ.)
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- A-5-11 **Palladium-Catalyzed Olefin Isomerization via Chain Walking**
Yuya Yamasaki, Fumitoshi Kakiuchi, Takuya Kochi
(Keio Univ.)
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- A-5-12 **Nickel-Catalyzed Alkynylation of Anisoles via Carbon-Oxygen Bond Cleavage**
Mamoru Tobisu¹, Tsuyoshi Takahira², Akimichi Ohtsuki², Naoto Chatani²
(¹Center for Atomic and Molecular Technologies, ²Osaka University)

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- A-5-13 **Palladium-Catalyzed Cross Dehydrogenative Coupling between Unactivated C(sp³)-H Bonds in Aliphatic Amides and Benzylic C-H Bonds in Toluene Derivatives**
Teruhiko Kubo, Yoshinori Aihara, Naoto Chatani
 (Osaka University)
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- A-5-14 **Efficiently Synthesis of Polycyclic Aromatic Hydrocarbons Using Ruthenium-Catalyzed C-O Arylation**
Yusuke Suzuki, Takuya Kochi, Fumitoshi Kakiuchi
 (Keio Univ.)
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- Biomass**
Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45
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- A-6-01 **Composite of Bacterial Cellulose with Poly(vinyl alcohol)**
Hyunhee Shim, Ayumi Dobashi, Hiroshi Uyama
 (Osaka Univ.)
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- A-6-02 **Applying Activated Carbon Derived from Spent Coffee Grounds to Electric Double Layer Capacitors as Electrodes and Its Energy Regeneration Performance**
Keisuke Kikuchi¹, Rie Yamashita¹, Satoshi Sakuragawa¹, Tomitaka Toyama², Suguru Mashimo³, Katsuji Mitsui⁴
 (¹Industrial Research Institute of Shizuoka Prefecture, ²Mikawa Environmental Technology Co., Ltd., ³JFE-TEC Co., Ltd., ⁴Essential Co., Ltd.)
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- A-6-03 **Screening microbial aromatic compounds for biomass-derived monomers**
Ryosuke Shigemoto, Ken-Ichi Oinuma, Naoki Takaya
 (Univ. of Tsukuba)
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- A-6-04 **Conversion of levulinic acid to BTX over metal zeolite catalysts**
Asima Sultana, Tadahiro Fujitani
 (National Institute of advanced industrial science and technology)
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- A-6-05 **Acid-catalysed de-polymerisation of lignin in a nonpolar solvent and synthesis of lignin-based epoxy resins**
Atsushi Kaiho¹, Makiko Kogo¹, Ryo Sakai¹, Kaori Saito², Takashi Watanabe²
 (¹Nippon Kayaku Co., Ltd, ²Kyoto University)
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- A-6-06 **Preparation and characterization of a transparent amorphous cellulose film**
Bo-xing Zhang, Jun-ichi Azuma, Hiroshi Uyama
 (Osaka University)
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- A-6-07 **Development of a New Method for Producing Pentamethylenediamine and Bio-based Polyamide52**
Daisuke Doyama, Yasuhiro Kawachi, Takashi Doi
 (Ube Industries Ltd.)
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- A-6-08 **Highly Efficient 2,3-Butanediol Fermentative Production using Zymobacter palmae leading to Bio-Based 1,3-Butadiene**
Kyohei Isobe¹, Kenji Sawai¹, Izumi Morita¹, Katsushige Yamada¹, Hideshi Yanase²
 (¹Toray Industries, Inc., ²Tottori Univ.)
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- A-6-09 **Development of a Process for Deriving 1,5-Pentanediol from Biomass**
Ryo Fujimoto, Yasutaka Yoshida, Kenji Hirotsu, Satoru Fujitsu, Ryosuke Katsura, Takashi Doi
 (Ube Industries Ltd.)

A-6-10 **Effect of Polyhydroxyalkanoates (PHAs) Degradation on Soil Microbial Diversity**
Su Yean Ong, Kumar Sudesh
 (Universiti Sains Malaysia)

A-6-11 **Pilot Scale Biosynthesis of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) from Palm Oil by Recombinant *Cupriavidus necator* Re2058/ pCB113**
Lizhu Han, Kumar Sudesh
 (Universiti Sains Malaysia)

Catalyst

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

A-7-01 **Development of Ionic Liquid Type Activating Agents for Lipase-catalyzed Transesterification**
Takashi Nishihara, Yui Matsubara, Yukinobu Fukaya, Toshiki Nokami, Itoh Toshiyuki
 (Tottori University)

A-7-02 **Development of ceria-supported iridium catalysts for environmentally-benign synthesis of organosilicon compounds**
Kenji Wada¹, Shinji Tsukada², Saburo Hosokawa², Ryu Abe²
 (¹Kagawa Univ., ²Kyoto Univ.)

A-7-03 **Synthesis, characterization and catalytic properties of new polyoxometalates**
Tadaharu Ueda¹, Miho Ohnishi¹, Keisuke Yamashita¹, Daisuke Kawamoto¹,
 Hikaru Hirabaru², Motoo Shiro², Si-Xuan Guo³, John F. Boas³, Alan M. Bond³
 (¹Kochi Univ., ²Rigaku Corp., ³Monash Univ.)

A-7-04 **Organic-Inorganic Cerium Oxide Nano-Assemblies Synthesis and Structural Evolution in Subcritical Water with in-situ Modification**
Andrzej-Alexander Litwinowicz, Seiichi Takami, Nobuaki Aoki, Daisuke Hojo,
 Tadafumi Adschiri
 (Tohoku Univ.)

A-7-05 **Synthesis of Phenol from Benzene Using TiO₂ Photocatalyst Placed near Benzene/Water Interface**
Eri Hirota¹, Suguru Higashida¹, Michio Matsumura²
 (¹Osaka Pref. Univ., ²Osaka Univ.)

A-7-06 **Rhodium(III)-catalyzed Direct Alkenylation of Aryldithianes**
Yuto Unoh^{1,2}, Koji Hirano¹, Tetsuya Satoh^{1,2}, Masahiro Miura¹
 (¹Osaka University, ²ACT-C, JST)

A-7-07 **A Robust Palladium Species Grafted on Amino-functionalized Organozinc Coordination Polymer for Efficient Suzuki-Miyaura Coupling Reaction in Open Air**
Hemant Choudhary, Shun Nishimura, Kohki Ebitani
 (Japan Advanced Inst. of Science and Technology)

A-7-08 **Direct Catalytic Asymmetric Alkynylation of Ketimines**
Masanao Sawa¹, Kazuhiro Morisaki¹, Ryohei Yonesaki¹, Hiroyuki Morimoto¹,
 Kazushi Mashima², Takashi Ohshima¹
 (¹Kyushu Univ., ²Osaka Univ.)

A-7-09 **Flame made ceria supported noble metal catalysts for efficient H₂ production via the water gas shift reaction**
Guelperi Cavusoglu¹, Henning Lichtenberg¹, Jan-Dierk Grunwaldt¹, Andreas Goldbach²
 (¹Karlsruhe Institute of Technology, ²Chinese Academy of Sciences)

A-7-10 **Syntheses and Reactivities of Novel Rhodium Complexes Bearing Pincer-Type PNO Ligands Containing 8-Quinolinolate and Phosphine Moieties**
Shotaro Takano, Takuya Kochi, Fumitoshi Kakiuchi
 (Keio Univ.)

A-7-11 **Direct acetylation of aromatic ring with palladium loaded titanium oxide photocatalysts**
Tomoya Matsumoto, Hisao Yoshida
 (Kyoto Univ.)

B - Low Carbon -

Energy/Resources

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

B-1-01 **Development of Si-anode/electrolyte interface for advanced Li-ion battery**
Masahiro Shimizu, Hiroyuki Usui, Hiroki Sakaguchi
 (Tottori Univ.)

B-1-02 **Development of A Low Platinum, High Durability Cathode catalyst for DMFC**
Kunning Zhu, Kunchan Lee, Tomoya Kitagawa, Masahiro Ohmori
 (Showa Denko K.K.)

B-1-03 **Research of Intermediate Temperature Steam Electrolysis Cells Using Proton-conducting Oxide Electrolyte**
Kuninori Miyazaki¹, Shinya Kitaguchi¹, Masatoshi Ikeda¹, Hyahide Yamasaki¹, Hiroshige Matsumoto²
 (¹NIPPON SHOKUBAI CO.,LTD., ²Kyushu University)

B-1-04 **Reaction Performance of Calcium Hydroxide Composite for Chemical Heat Storage Application**
Jun Kariya, Junichi Ryu, Yukitaka Kato
 (Tokyo Institute of Technology)

B-1-05 **All Chromium Redox Flow Battery System with TRIS(hydroxymethyl)aminomethane as the Precipitation Inhibitor**
Ric Madison U Cua, Nathaniel P Dugos, Josephine Q Borja
 (De La Salle University)

Reactive Media

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

B-2-01 **Organic solvent-free carboxylic acid modification of boehmite particles in supercritical water**
Tatsuya Fujii¹, Shin-ichiro Kawasaki¹, Akira Suzuki², Tadafumi Adschiri²
 (¹National Inst. of Advanced Industrial Science and Technology (AIST), ²Tohoku Univ.)

B-2-02 **Energy-saving lipid extraction from wet labyrinthulea Aurantiochytrium limacinum by liquefied dimethyl ether**
Kazuya Murakami¹, Rintaro Hoshino¹, Masaki Ogawa¹, Yuji Okita², Eiji Ohashi²
Wahyudiono¹, Siti Machmudah³, Hideki Kanda^{1,4}, Motonobu Goto¹
 (¹Nagoya Univ., ²Nippon Suisan Kaisha, Ltd., ³Sepuluh Nopember Inst. of Technology, ⁴Japan Science and Technology Agency)

B-2-03 **Ionic Association of Protic Ionic Liquids in Different Molecular Solvents**
Sachin Thawarkar, Anil Kumar
 (CSIR-National Chemical Laboratory)

Special Matters*Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00*

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- B-4-01 **Mixed-Ligand Zeolitic Imidazolate Framework for CO₂ Adsorption**
 Yu-Te Liao¹, Saikat Dutta¹, Kevin C.-W Wu¹, Chien-Chieh Hu², Ching-Hsuan Chien³,
 Chia-Her Lin³
 (¹National Taiwan University, ²Chung Yuan University, ³Chung-Yuan Christian University)
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- B-4-02 **Evolution of Mitsui Chemicals acrylamide (AAM) manufacturing technology**
 Kiyoshi Naito, Kenta Takahashi, Yoshikazu Uehara
 (Mitsui Chemicals, Inc.)
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- B-4-03 **Development of Durable Water-borne Polyurethane Coating Materials**
 Atsushi Morikami, Takeshi Yamada, Masahiro Naiki, Manabu Takahashi, Teruaki Fujii
 (UBE Industries, LTD.)
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- B-4-04 **Development of glass substitute for transportation glazing by functional polycarbonate**
 Toshiaki Hotaka, Takashi Koga, Fumitaka Kondo, Ryo Niimi, Takehiro Suga
 (Teijin Limited)
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- B-4-05 **Sustainable Additive for tire with silica reinforced rubber.**
 Tetsuo Takano, Motoi Konishi
 (Kao Corporation)
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- B-4-06 **Green Preparation of Nanoporous and Microporous Aluminosilicate Compounds for Industrial Applications**
 Parichat Iam-khong¹, Nimit Sriprang², Manit Nithitanakul¹
 (¹Chulalongkorn University, ²Naresuan University)
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- B-4-07 **Development of a hydrogen purification system with hybrid membrane -An efficient high-purity hydrogen purification and CO₂ recovery-**
 Hideo Tsuneoka, Nana Tamai, Minoru Ogawa, Masakazu Ikeda
 (JX Nippon Oil & Energy Corporation)
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- B-4-08 **Development of microfiltration membranes of biomass and biodegradable plastics**
 Hiromi Minbu, Akihito Ochiai, Masayuki Taniguchi, Takaaki Tanaka
 (Niigata Univ.)
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Organic Synthesis*Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45*

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- B-5-01 **Asymmetric Chrysene Derivatives as Novel Organic Transistor Materials**
 Takanori Yoshida¹, Hiroyuki Otsuki², Kazuo Okamoto², Yoshihito Kunugi¹
 (¹Tokai University, ²Ushio ChemiX Corporation)
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- B-5-02 **Development of a Highly Efficient Single-Mode Microwave Applicator with a Resonant Cavity and its Application to Continuous Flow Organic Syntheses**
 Hiromichi Odajima¹, Saori Yokozawa¹, Noriyuki Ohneda¹, Ken Muramatsu¹,
 Tadashi Okamoto¹, Takashi Ikawa², Jun-ichi Sugiyama³, Masashi Fujita⁴, Taira Sawairi⁴,
 Hiromichi Egami⁴, Yoshitaka Hamashima⁴, Masahiro Egi⁴, Shuji Akai²
 (¹Saida FDS Inc., ²Osaka Univ., ³National Institute of Advanced Science and Technology,
⁴Univ. of Shizuoka)
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- B-5-03 **Synthesis of Alkoxysilanes by Reactions of Methoxy- or Ethoxysilanes with Alcohols Using Solid Acid Catalysts and/or Microwave Irradiation**
Hiroshi Yamashita, Makiko Hatori, Michiyo Yoshinaga, Shigeru Shimada, Kazuhiko Sato
 (National Inst. of Advanced Industrial Science and Technology (AIST))
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- B-5-04 **Hydroxy polyurethane resin synthesized carbon dioxide as a raw material**
K. Kimura, K. Takahashi, M. Uruno, K. Muto, M. Tanigawa, A. Minami, K. Hanada
 (Dainichiseika Color&Chemicals Mfg.Co.Ltd.)
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- B-5-05 **Facile C-N and C-C Bond Formation between Terminal Acetylenes and Primary Amines: Hydroamination/C-H Activation, Double Hydroamination and Metathesis Products**
Yih-Hsing Lo, Guan-Ru Chiang
 (University of Taipei)
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- B-5-06 **Isolation of Ruthenium Formyl Complexes: Insight into the Metal-mediated Cleavage Reaction of Carbon-Carbon Triple Bond**
Yih Hsing Lo, Sheng-Ting He
 (University of Taipei)
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Biomass

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

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- B-6-01 **Subcritical water extraction of functional substances from biomass by using a flow-through reactor**
Wahyu Diono¹, Siti Machmudah², Widiy Astuti², Hideki Kanda¹, Sugeng Winardi², Motonobu Goto¹
 (¹Nagoya University, ²Sepuluh Nopember Institute of Technology)
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- B-6-02 **Optimization Studies on Catalytic Pyrolysis Of Empty Fruit Bunch (EFB) Using L9 Taguchi Orthogonal Array**
 Kirenraj Doraiselvan, Suzana Yusuf, Cheah Kin Wai, Haswin Kaur, Nur Suriawanie Muda
 (Univ. Technology PETRONAS)
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- B-6-03 **Production of P(3HB-co-3HHx) with controlled compositions by recombinant Cupriavidus necator Re2058/pCB113 from crude palm kernel oil and oil palm tree trunk**
Murugan Paramasivam, Kumar Sudesh
 (Universiti Sains Malaysia)
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Catalyst

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

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- B-7-01 **Mono-, Di- and Tri-nuclear Nickel Complexes Based on NNO-Schiff Base Ligands as Efficient Catalysts for Copolymerization of Carbon Dioxide and Cyclohexene Oxide**
Chen-Yen Tsai, Bor-Hunn Huang, Chu-Chieh Lin, Bao-Tsan Ko
 (National Chung Hsing University)
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- B-7-02 **Biodegradable polymers produced from ring-opening polymerization of cyclic esters using imino-benzotriazole phenolate zinc complexes**
 Chin-Hsiang Chang¹, Hui-Ju Chuang², Ting-Yi Chen¹, Chen-Yu Li¹, Bao-Tsan Ko²
 (¹Chung Yuan Christian Univ., ²National Chung Hsing Univ.)
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- B-7-03 **Fourfold cross-linked polystyrene-bisphosphine hybrids: Application to Ni-catalyzed cross-coupling reactions**
Masaya Sawamura, Tomoya Harada, Tomohiro Iwai
 (Hokkaido Univ.)
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- B-7-04 **Conversion of Cellulose and Glucose to 5-Hydroxymethylfurfural in Water Solvent over Calcium Phosphate Catalysts**
Naoki Mimura¹, Aritomo Yamaguchi^{1,2}, Osamu Sato¹, Masayuki Shirai^{1,3}, Takaaki Hanaoka¹
 (¹National Institute of Advanced Industrial Science and Technology (AIST), ²JST PRESTO, ³Iwate University)
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- B-7-05 **Hydrogen Production from Methanol-Water Solution Catalyzed by an Iridium Complex Bearing a Functional Bipyridonate Ligand Under Mild Conditions**
Ken-ichi Fujita, Ryoko Kawahara, Takuya Aikawa, Ryohei Yamaguchi
 (Kyoto Univ.)
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- B-7-06 **Synthesis of surfactant-like NHC ligands and its application for aqueous Mizoroki-Heck reaction**
Toshiaki Taira, Dai Kitamoto, Tomohiro Imura
 (National Institute of Advanced Industrial Science and Technology (AIST))
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- B-7-07 **Direct Allylation of Benzylic Alcohols with Allylsilanes Catalyzed by Sc(OTf)₃**
Yuanjun Di, Yu Kimura, Akio Toshimitsu, Teruyuki Kondo
 (Kyoto Univ.)
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- B-7-08 **Shape-Controlled Synthesis of Cr Doped CeO₂ Nanoparticles in Sub- and Supercritical Water**
Yuanzheng Zhu¹, Seiichi Takami¹, Daisuke Hojo², Nobuaki Aoki², Tadafumi Adschiri^{1,2}
 (¹Tohoku Univ., ²World Premier International Research Center)
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- B-7-09 **Catalytic Pyrolysis of Oil Palm Frond (OPF) Using Graphite Nanofiber (GNF) As A Catalyst**
Kin Wai Cheah, Nazratul Zaheera Abdul Kapor, Calvin Chok, Suhaida Azlin, Suzana Yusuf
 (Univ. Technology PETRONAS)
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- B-7-10 **Synthesis of Benzimidazoles and Benzothiazoles by Rare Earth Metal-catalyzed Condensation of 1,2-Diaminobenzene and 2-Aminobenzenethiol with Ketones**
Shunichi Naito, Tsutomu Yoshimura, Yu Kimura, Akio Toshimitsu, Teruyuki Kondo
 (Kyoto Univ.)
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C - Quality of Life -

Energy/Resources

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

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- C-2-01 **One Pot Multicomponent Synthesis through Mannich Reaction Using Glycerol as Green Solvent**
Deepak Nagrik¹, Damodar Ambhore²
 (¹G.S. Science, Arts and Commerce College, Khamgaon, ²Jijamata Mahavidyalaya, Buldana)
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- C-2-02 **To Study Freundlich and Langmuir Adsorption Isotherm using low cost adsorbent Cissus Quadrangularis for removal of fluoride in drinking water**
 Rameshwar E. Khadsan
 (Shri.D.M.Burungale Science & Arts College, Shegaon)
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Polymers*Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00***C-3-01 Protein adsorption to Cyclo Olefin Polymer using reflectometric interference spectroscopy**Satoru Nagatoishi¹, Satoru Adachi², Hiroya Nishioka², Kouhei Tsumoto¹
(¹The University of Tokyo, ²ZEON CORPORATION)**Special Matters***Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00***C-4-01 Research on the development of the method for inactivation of pharmaceuticals in clinical wastewater**Takashi Nakano
(Osaka Medical College)**C-4-02 Synthesis of new boron adsorbent using ion-exchange resin**Akiko Kawai, Rie Sato, Toshiyuki Takagi, Akira Endo
(National Institute of Advanced Industrial Science and Technology (AIST))**C-4-03 Simulation Drying Process of Polysaccharide Extract in The Spray Dryer Based on CFD**Anbie M. Rahmatika, W Widiyastuti, Siti Machmudah, Tantular Nurtono, Kusdianto, Sugeng Winardi
(Sepuluh Nopember Institute of Technology)**C-4-04 Safe and rapid analytical methods for actinide ions and radioactive Sr-90 in high-dose radiation samples using fluorescent probes in capillary electrophoresis**Tomoko Haraga¹, Yuta Nakano², Yoshiyuki Sato¹, Kazuki Ohuchi², Kazuki Hirose², Masami Shibukawa², Ken-ichiro Ishimori¹, Yutaka Kameo¹, Shingo Saito²
(¹Japan Atomic Energy Agency, ²Saitama University)**C-4-05 Comparative study of synthesis biomass activated carbon in toxic contaminants removal**Hanif Mubarok, Rachmat Hidayanto, Neneng Rida Rifaatul, Annisa Kartika
(Univ. of Indonesia)**C-4-06 Development of Highly Sensitive, Highly Accurate and Rapid Biological-sensing method for Detection of PCBs Content in Transformer Oil**Katsuya Imanishi¹, Yasuko Yoshida¹, Takafumi Noguchi¹, Naoya Ohmura², Kazuhiro Sasaki²
(¹Sumica Chemical Analysis Service,Ltd., ²Central Research Institute of Electric Power Industry)**C-4-07 Recovery of Phytochemicals from Saffron by Supercritical Carbon Dioxide Extraction**Mika Ito¹, Hazuki Nerome¹, Chiho Uemori¹, Wahyudiono¹, Hideki Kanda^{1,2}, Motonobu Goto¹
(¹Nagoya University, ²Japan Science and Technology Agency)**C-4-08 An Efficient Method for Chemical Recycling of Plastics**Hiroshi Matsumoto^{1,2}, Kouji Kaiso², Makoto Yoshimoto¹, Akio Kamimura¹
(¹Yamaguchi Univ., ²Ube Industries Co.Ltd.)**C-4-09 High functional nonwoven fabrics for disposable diapers to realize comfortable human life and sustainable global environment**Shingo Kajiyama, Akio Matsubara, Koichi Shimada, Naosuke Kunimoto, Kenichi Suzuki
(MITSUI CHEMICALS, INC.)

-
- C-4-10 **Effects of Shrinkage Cracks on the Durability of Concrete Mixed with Seawater**
Cheryl Lyne Capiz
(De La Salle University)
-
- C-4-11 **Removal of phosphate from aqueous solution using calcium silicate adsorbent prepared from waste iron-making slag**
Yasutaka Kuwahara^{1,2}, Hiromi Yamashita^{1,2}
(¹Osaka Univ., ²Kyoto Univ.)
-
- C-4-12 **Optical hydrogen sensing properties of silane coated Pt/WO₃ thin film and its durability for humidity**
Hajime Toyoda, Yuki Yamaguchi, Keishi Nishio, Kenjiro Fujimoto
(Tokyo Univ. of Science)
-

Organic Synthesis

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

-
- C-5-01 **Halogen-free Synthesis of Epoxide Using Hydrogen Peroxide and its Application to Encapsulant of Semiconductor**
Shinji Tanaka¹, Yoshihiro Kon¹, Takefumi Chishiro¹, Yoshitaka Ishibashi², Hiroshi Uchida², Kazuhiko Sato¹
(¹National Institute of Advanced Industrial Science and Technology(AIST), ²Showa Denko K. K.)
-
- C-5-02 **Cathodic cross-coupling reaction between aromatic compounds through SET pathway toward a novel biphenyl synthesis**
Yang Qu, Hiroyuki Tateno, Mahito Atobe
(Yokohama National Univ.)
-

Biomass

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

-
- C-6-01 **Application of yeast glycolipid biosurfactant, mannosylerythritol lipid, as agrospreaders**
Tokuma Fukuoka¹, Shigenobu Yoshida², Junichi Nakamura³, Motoo Koitabashi², Hideki Sakai³, Masahiko Abe³, Dai Kitamoto¹, Hiroko Kitamoto²
(¹National Institute of Advanced Industrial Science and Technology (AIST), ²National Institute for Agro-Environmental Sciences (NIAES), ³Tokyo University of Science)
-
- C-6-02 **Shrimp-Shell House (SSH) as an Integrated Solution to solve Shrimp-Shell Waste Problem by Process into Chitosan in Lampung, Indonesia**
An Nisa Suci, Erin, Sinta Krisdamayanti, Hastin Setiani
(Univ. of Indonesia)
-

Catalyst

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

-
- C-7-01 **ϵ -Caprolactone Polymerization under Air by the Biocatalyst : Magnesium 2,6-di-tert-butyl-4-methylphenoxide**
Hsin-Jou Fan, Hsuan-Ying Chen
(Kaohsiung Medical University)
-
- C-7-02 **Solvent Free Oxidation of Benzyl Alcohol Using Gold Palladium by Supported Catalyst**
Nur Shuhada Nordin, Nur Shafika Rahim, Mohd Izham Saiman
(Universitiy Putra Malaysia)
-

C-7-03 **Alkyl- and aryl-thioalkylation of olefins with organotrifluoroborates by photoredox catalysis**

Yanjie Li, Kazuki Miyazawa, Takashi Koike, Munetaka Akita
(Tokyo Inst. of Technology)

D - Energy -

Energy/Resources

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

D-1-01 **Electrochemical Studies on Azobenzene Dyes and Application for DSSCs**

Kuo Yuan Chiu, Sheng Hsiung Chang, Kun-Mu Lee, Chun-Guey Wu
(National Central University)

D-1-02 **New Azobenzene-Bridged Metal-Free Organic Dyes for Dye-Sensitized Solar Cells**

Kuo Yuan Chiu, Sheng Hsiung Chang, Kun-Mu Lee, Chun-Guey Wu
(National Central University)

D-1-03 **TiO₂/Si composite electrodes for Li-ion battery anodes**

Hiroyuki Usui, Kuniaki Wasada, Masahiro Shimizu, Hiroki Sakaguchi
(Tottori Univ.)

D-1-04 **Control of Spiral Shape of Spirulina on Agar-Plate Culture**

Toshihiro Yamada, Zhenzi Piao, Kaori Kamata, Tomokazu Iyoda
(JST-ERATO Iyoda Supra-Integrated Project, Tokyo Inst. of Tech.)

D-1-05 **Development of Zn electrode with ion-conducting film for Environmental Load-Reducing Secondary Battery**

Keisuke Kikuchi, Satoshi Ogawa, Hiroko Harada, Hiroki Tokushima, Yasuyuki Takazawa ,
Koji Yonehara
(NIPPON SHOKUBAI CO., LTD.)

D-1-06 **Stoichiometry dependent energy conversion efficiency of CuIn_{1-x}Ga_xSe₂ photovoltaic cells**

Hung-Ing Chen¹, Jui-Ju Hsiao¹, Wei-sheng Lin², Tung-Po Hsieh², Tzer-En Nee¹
(¹Chang Gung University, ²Industrial Technology Research Institute)

D-1-07 **Stabilization of the Active Layer in Organic Photovoltaic Cells**

Shogo Yamane, Junji Mizukado, Liang Chen, Hideaki Hagihara, Toshikazu Takahashi ,
Hiroyuki Suda
(Advanced Industrial Science and Technology(AIST))

D-1-08 **Photon Upconversion Molecular Systems toward their Applications to Solar Energy Utilization**

Nobuhiro Yanai¹, Nobuo Kimizuka²
(¹Kyushu Univ., ²PRESTO, JST)

D-1-09 **Glycolic Acid Titanium Complex: Nobel Coating Reagent for Photoactive Layer of Dye Sensitized Solar Cells**

Joel Yamakawa, Yuki Shimoyama, Ryogo Tsubota, Koji Tomita, Yoshihito Kunugi
(Tokai University)

Reactive Media

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

D-2-01 **Novel particulation technique leveraging supercritical CO₂**

Taiji Yamashita
(SANYO CHEMICAL INDUSTRIES,LTD)

- D-2-02 **Simple extraction method of lipid from wet *Arthrospira platensis* by liquefied dimethyl ether as compared with hexane and supercritical CO₂ methods**
Rintaro Hoshino¹, Masaki Ogawa¹, Kazuya Murakami¹, Hazuki Nerome¹, Yuko Kurita¹,
 H.ideki Kanda^{1,2}, Motonobu Goto¹
 (¹Nagoya Univ., ²Japan Science and Technology Agency)

Polymers

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

- D-3-01 **Highly sensitive di(2-picoyl)amine-based polyfluorenes as colorimetric and turn-off-on fluorimetric sensors toward Fe³⁺ and pH sensing**
Po-Chih Yang, Hsiao-Jou He, Hua-Wen Wen, Si-Oiao Li
 (Yuan Ze University)
- D-3-02 **Development of a novel electropolymerization method using neat monomer solution and evaluation of deposited conducting polymer**
Eisaku Tanaka, Koji Nakabayashi, Mahito Atobe
 (Yokohama National Univ.)

Special Matters

Core Time: July 7th(Tue.) odd numbers 13:00-14:00/even numbers 14:00-15:00

- D-4-01 **Preparation of high-performance methanol electrooxidation catalysts with the recovered materials from silicon slurry waste**
Yu-Cheng Chen¹, Yung-Fu Wu², Tzu-Hsuan Tsai¹
 (¹National Taipei University of Technology, ²Ming Chi University of Technology)
- D-4-02 **Solution-processed Single-crystal OFETs based on Alkyl-substituted Picones**
Yusaku Koike¹, Masaki Monzaki², Kazuo Okamoto², Yoshihito Kunugi¹
 (¹Tokai University, ²Ushio ChemiX Corporation)
- D-4-03 **The Lead Acid Batteries for ISS Vehicles**
Shinsuke Kobayashi, Toshio Shibahara, Shingo Araki, Tetsuro Okoshi, Satoshi Minoura
 (Hitachi Chemical Co., Ltd.)
- D-4-04 **Development of Novel Safety Material (STOBA®) for Lithium Ion Batteries**
Han Zhang, Akihito Shigematsu, Yu Harima, Keita Nagakawa, Ayumi Mori,
 Takaomi Hayashi
 (Mitsui Chemicals, Inc.)
- D-4-05 **Fabrication of IrO_x/TaO_x Composite Electrocatalyst for Electrocatalytic Applications**
Safuan Mohd, Takeyoshi Okajima, Takeo Ohsaka
 (Tokyo Inst. of Technology)
- D-4-06 **Chemistry education and research using the desktop NMR Spectrometer ; picoSpin 80**
Kazuaki Hiroki¹, Hiromi Sawada², Naoya Yamashita²
 (¹National Institute of Technology, Tsuyama College, ²Thermo Fisher Scientific Japan)
- D-4-07 **Production of Drop-in Fuel from Algae Extract**
Mayu Miyoshi, Jun Shamoto, Tetsuya Fukunaga
 (Idemitsu Kosan Co., Ltd.)
- D-4-08 **Isoconversional Model Free Kinetics for Pyrolysis of Empty Fruit Branches**
 Sujan Chowdhury, Suzana Yusup, Mohd Aliff Irham Md Azhar
 (Universiti Teknologi PETRONAS)

- D-4-09 **High-efficiency Fermentation Using a Membrane-integrated Bioprocess**
Koji Kobayashi, Kyohei Isobe, Shiomi Watanabe, Kenji Sawai, Junpei Kishimoto,
 Atsushi Minamino, Hiroyuki Kurihara, Kstsushige Yamada, Tetsu Yonehara
 (Toray Industries, Inc.)

Biomass

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

- D-6-01 **Synthesis and Characterization of Solid Acid Catalyst for glycerol Etherification Process**
Subhash Magar¹, L. Kishore Jhansi¹, Chandrashekar Rode²
 (¹Birla Inst. of Tech., ²National Chemical Lab.)
- D-6-02 **Surfactant-assistant CaO nanoparticle synthesis from waste egg shell**
Aminul Islam, Yun-Hin Taufiq-Yap
 (Universiti Putra Malaysia)
- D-6-03 **Synthesis and characterization of Zr-Fe seires nano-catalysts for biomass waste catalytic decomposition at low temperature**
Hua Zeng¹, Gimyeong Seong², Tsutomu Aida², Daisuke Hojo³, Nobuaki Aoki³,
 Seiichi Takami⁴, Tadafumi Adschiri^{2,3,4}
 (¹Tohoku University, ²New Industry Creation Hatchery Center, ³World Premier International Research Center-Advanced Institute for Materials Research, ⁴Institute of Multidisciplinary Research for Advanced Materials)
- D-6-04 **Supercritical water gasification of oil palm frond using MO-magnesia based catalysts (M=Ni,Co,Cu and Zn) for hydrogen production**
Mohd Sufri Mastuli^{1,2}, Norlida Kamarulzaman², Yun Hin Taufiq-Yap¹
 (¹Universiti Putra Malaysia, ²Universiti Teknologi MARA)

Catalyst

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

- D-7-01 **Research review on advanced characterization techniques for heterogeneous catalysts for valorization of glycerol**
Subhash Magar¹, L. Kishore Jhansi¹, Chandrashekar Rode²
 (¹Birla Inst. of Tech., ²National Chemical Lab.)
- D-7-02 **Highly efficient one-pot oxidation using in-situ generated H₂O₂ over core-shell catalyst with hydrophobic surface**
Kazuki Nakatsuka¹, Yasutaka Kuwahara^{1,2}, Kohsuke Mori^{1,2}, Hiromi Yamashita^{1,2}
 (¹Osaka Univ., ²Kyoto Univ.)
- D-7-03 **Biodiesel production from Jatropha curcas L. crude oil with Ca and La mixed oxide catalyst in near supercritical methanol conditions**
Siow Hwa Teo¹, Motonobu Goto², Yun Hin Taufiq-Yap¹
 (¹Univ. Putra Malaysia, ²Nagoya Univ.)
- D-7-04 **Preparation transition metal-included Layered double hydroxide hybrid with polyanion and evaluation of catalytic activity**
Yuma Mitani, Takahiro Takei, Nobuhiro Kumada
 (Univ. of Yamanashi)

E - Pioneering Challenges -

Core Time: July 8th(Wed.) odd numbers 12:45-13:45/even numbers 13:45-14:45

-
- E-8-01 **Development of green organic synthesis in multiphase reactions using micro- and nanobubbles strategy**
Yuki Nishina, Takuya Tsuboi, Tetsuo Narumi, Naoharu Watanabe, Nobuyuki Mase
 (Shizuoka Univ.)
-
- E-8-02 **Environmental Load Reduction by a Flow Microreactor System Utilizing Process Rate Analyses**
Yukako Asano, Shigenori Togashi, Yoshishige Endo
 (Hitachi, Ltd.)
-
- E-8-03 **Molybdate Sulfuric acid (MSA)-Catalyzed green synthesis of tetrahydrobenzo[4,5]imidazo[2,1-b]quinazolin-1(2H)-ones under solvent-free conditions**
Veeranarayana Reddy Mudumala, Jeong Yeon Tae
 (Pukyong National University)
-
- E-8-04 **Novel Giga-Porous Polymer-Agarose Matrix for Protein Purification**
Masaru Watanabe, Fumihiko Kawauchi, Tomoko Higashiuchi, Yasushi Gotoh
 (Hitachi Chemical Co., Ltd.)
-
- E-8-05 **Green reduction of levulinic acid and levulinic acid esters to γ -valerolactone, using a heterogeneous catalyst system**
Jozsef M. Tukacs, Laszlo T. Mika
 (Budapest University of Technology and Economics)
-
- E-8-06 **Characterization of carrier transferring in hybrid photovoltaic heterostructures**
Hung-Ing Chen¹, Jui-Ju Hsiao¹, Yi-Jen Huang¹, Bing-Yuh Lu², Tzer-En Nee¹
 (¹Chang Gung University, ²Tun Gnan University)
-
- E-8-07 **Green Synthesis Using CO₂ as a C1 Building Block under Mild Conditions**
Zhimin Liu, Yanfei Zhao, Bo Yu
 (Chinese Academy of Sciences)
-
- E-8-08 **Utilization of Waste Corbiculacea s.p. (ETOK) Shell as an Effective Catalyst for Microalgae's Biodiesel**
Osman Nur Syazwani, Yun Hin Taufiq-Yap
 (Universiti Putra Malaysia)
-
- E-8-09 **Effective Production of Renewable Fuel via Catalytic Deoxygenation of Triolein**
Mahashanon Arumugam, Siti Lahsilah Rosiddin, Nurul Asikin Mijan, Yun Hin Taufiq-Yap
 (Universiti Putra Malaysia)
-
- E-8-10 **Ultrasound-assisted enzymatic FAME production**
Ryoichi Nakayama¹, Masanao Imai¹, John M. Woodley²
 (¹Nihon Univ., ²Technical Univ. of Denmark)
-
- E-8-11 **Molecular Docking on Binding Study of Pyrene Derivatives with Bovine Serum Albumin and Lysozyme**
Suwicha Patnin, Mayuso Kuno, Apinya Chaivisuthangkura
 (Srinakharinwirot Univ.)
-
- E-8-12 **Study on the interaction of a new photochemical reagent with protein**
Sudarat Yenjai, Mayuso Kuno, Siritron Samosorn, Apinya Chaivisuthangkura
 (Srinakharinwirot Univ.)

-
- E-8-13 **Site-specific of pepsin by molybdenum (VI) peroxo alpha-amino acid complexes**
Benchawan Jityuti, Teerayuth Liwporncharoenvong, Apinya Chaivisuthangkura
(Srinakharinwirot Univ.)
-
- E-8-14 **Functionalized microporous organic polymers: design and applications in CO₂ adsorption and conversion**
Zhenzhen Yang, Zhimin Liu
(Chinese Academy of Sciences)
-
- E-8-15 **Novel Visible-Light Sensitive Photocatalyst for Risk-Reduction of Infectious Disease at Indoor Environment**
Yasushi Kuroda^{1,2}, Ding Li¹
(¹Showa Denko Ceramics Co., Ltd., ²Hokkaido Univ.)
-
- E-8-16 **Step bilayer heterojunction thin film model to study surface potential of nanostructure heterojunction**
Mohd Fairus bin Ahmad¹, Tomokazu Iyoda¹, Toshiyuki Abe², Keiji Nagai¹
(¹Tokyo Inst. of Tech., ²Hirosaki Univ.)
-
- E-8-17 **Transition metal Substitution to WO₃ thin film prepared by sol-gel process and its photocatalytic property**
Kohei Hashimoto, Yuki Yamaguchi, Nishio Keishi, Kenjiro Fujimoto
(Tokyo Univ. of Science)
-
- E-8-18 **Electrochemical Synthesis of Poly(3-hexylthiophene) Using a Flow Microreactor**
Masatsugu Mizuno, Hiroyuki Tateno, Mahito Atobe
(Yokohama National Univ.)
-
- E-8-19 **Electrochemical Generation of o-Quinone using a Flow Microreactor and Its Application to Diels-Alder Reaction**
Hirona Yoshizawa, Hiroyuki Tateno, Mahito Atobe
(Yokohama National Univ.)
-
- E-8-20 **Development of a novel electrochemical carboxylation system using flow microreactor**
Hiroyuki Tateno, Koji Nakabayashi, Mahito Atobe
(Yokohama National Univ.)
-
- E-8-21 **Development of recycling system of precious metals and rare metals using green organic aqua regius**
Yasunari Matsuno, Kana Umehara
(The Univ. of Tokyo)
-
- E-8-22 **Homogeneous Synthesis of Polyimide Precursor with γ -Valerolactone/Water Mixture**
Duereh Alif, Yoshiyuki Sato, Hiroshi Inomata
(Tohoku Univ.)
-
- E-8-23 **Fabrication of an Aqueous TiO₂ Ink and its Patterning with Inkjet Printer.**
Yoshitaka Kato, Hiroya Uematsu, Yuki Simoyama, Yoshihito Kunugi
(Tokai Univ.)
-
- E-8-24 **Copper Paste for Printed Electronics**
Kosuke Urashima, Motoki Yonekura, Yasushi Kumashiro
(Hitachi Chemical Co.,Ltd.)

-
- E-8-25 **Non-Catalytic Reaction Induced by Discharge Plasma with Water**
Yui Hayashi, Noriharu Takada, Hideki Kanda, Motonobu Goto
(Nagoya University)
-
- E-8-26 **Low-temperature synthesis of highly-crystallized perovskite oxides using the transition metal oxide gel without solvent**
Yuki Yamaguchi, Minoru Fukushima, Yoshihiro Kanamaru, Shigeru Ito, Yasushi Idemoto, Kenjiro Fujimoto
(Tokyo Univ. of Science)
-
- E-8-27 **Kinetic analysis of the methane steam reforming on a Ru catalytic wall reactor**
Jose Vasquez, Takafumi Sato, Naotsugu Itoh
(Utsunomiya University)
-
- E-8-28 **Design and Operation Procedures of Micro Chemical Devices and Plants for Mass Production**
Shinji Hasebe, Osamu Tonomura, Taisuke Maki, Kazuhiro Mae
(Kyoto University)
-
- E-8-29 **Development of Porous Coordination Polymers for Gas Separation**
Yoshikuni Okumura, Yoshihiro Watanabe, Keisuke Kishida
(Showa Denko K. K.)
-
- E-8-30 **Preparation of mesoporous silica thick coating on the honeycomb aluminum supports by electrophoretic deposition and its water vapor adsorption/desorption cyclic properties**
Hideyuki Negishi, Akira Endo
(National Inst. of Advanced Industrial Science and Technology (AIST))
-
- E-8-31 **Design and synthesis of new stimuli-responsive separation materials: A new opportunity for green chemistry in the chromatographic sciences**
Roshanak Sepehrifar¹, Basil Danylec¹, Lachlan J. Schwarz¹, Kei Saito¹, Joselito Quirino¹, Reinhard I. Boysen¹, Paul R. Haddad², Milton TW Hearn¹
(¹Monash Univ., ²Univ. of Tasmania)
-
- E-8-32 **Innovative reverse osmosis membrane for desalination**
Harutoki Shimura, Koji Nakatsuji, Takao Sasaki, Masahiro Kimura
(Toray Industries, Inc.)
-
- E-8-33 **Magnetite/ceria-codecorated titanoniobate nanosheet: a 2D catalytic nanoprobe for efficient enrichment and programmed dephosphorylation of phosphopeptides**
Qianhao Min¹, Siyuan Li¹, Xueqin Chen¹, E.S. Abdel-Halim², Li-Ping Jiang¹, Jun-Jie Zhu¹
(¹Nanjing Univ., ²King Saud Univ.)
-
- E-8-34 **Novel acrylic anchor -Designed for fine line electrodes-**
Kohei Takada¹, Junya Hamuro¹, Masami Iyo¹, Tetsuya Matoba¹, Munenori Yamashita², Hajime Mori², Takashi Miyazaki², Masamitsu Shirai³, Haruyuki Okamura³
(¹SHIN-NAKAMURA CHEMICAL Corp., ²Industrial Technology Center of Wakayama Prefecture, ³Osaka Prefecture Univ.)
-
- E-8-35 **Preparation of PPy Hollow Spheres Using Acoustically Formed Nanobubble Templates**
Ayaka Tajima, Yoshiyuki Ogawa, Koji Nakabayashi, Mahito Atobe
(Yokohama National Univ.)

-
- E-8-36 **Effects of Surface Modification on Lignocellulosic Porous Carbon Pellets by Vacuum Ultraviolet Treatment**
Hiroyuki Kuwae¹, Takashi Kasahara¹, Tsubasa Funabashi¹, Masao Kitajima², Kazuaki Mizokami³, Shuichi Shoji¹, Jun Mizuno¹
(¹Waseda Univ., ²Waseda Research Institute for Science and Engineering, ³Nippon Api Co., Ltd.)
-
- E-8-37 **Functions and Potential Applications of Kaneka Surfactin -Cyclic Peptide Based Microbial Biosurfactant-**
Takuto Nagano¹, Satohiro Yanagisawa¹, Toshiaki Taira², Tomohiro Imura², Dai Kitamoto²
(¹KANEKA Corporation, ²National Institute of Advanced Industrial Science and Technology(AIST))
-
- E-8-38 **Spirulina Biotemplate for Structure-Controlled Metal Microcoil**
Zhenzi Piao, Kaori Kamata, Toshihiro Yamada, Tomokazu Iyoda
(JST-ERATO Iyoda Supra-Integrated Material Project, Tokyo Inst. of Tech.)
-
- E-8-39 **A Rapid and Effective Strategy of Enzyme Immobilization on Metal-Organic Frameworks (MOFs) as Trypsin Bioreactor**
Hsi-Ya Huang, Wan-Ling Liu, Stephen Lirio, Chia-Her Lin
(Chung Yuan Christian Univ.)
-
- E-8-40 **High-strength transparent chitosan film reinforced with chitin nanofibers**
Shinsuke Ifuku, Akiko Ikuta, Minoru Morimoto, Hiroyuki Saimoto
(Tottori University)
-
- E-8-42 **Characterization of Debye behavior of InGaN/GaN multiple-quantum-well light-emitting diodes**
Jui-Ju Hsiao¹, Hung-Ing Chen¹, Yi-Jen Huang¹, Jen-Cheng Wang¹, Bing-Yuh Lu², Ya-Fen Wu³, Tzer-En Nee¹
(¹Chang Gung University, ²Tungnan Univ., ³Ming Chi Univ. of Technology)
-
- E-8-43 **Effect of Ni-Cu Ratio in Ni-Cu/Y-Al₂O₃ Catalyst for the Carbon Nanotube Production through the Catalytic Thermal Decomposition of Methane**
Christopher C. Ventura, Leonila C. Abella, Joseph L. Auresenia
(De La Salle Univ.)
-
- E-8-44 **Xanthan production as a possibility of wine industry wastewaters utilization**
Uros Miljic, Zorana Roncevic, Bojana Bajic, Vladimir Puskas, Jelena Dodic
(Univ. of Novi Sad)
-
- E-8-45 **Aluminum complexes containing NO-type ligands as catalysts for preparation of biodegradable polymers**
Chi-Tien Chen, Yun Chen
(National Chung Hsing University)
-
- E-8-46 **Degradation of Natural Rubber Products by Streptomyces sp.**
Jayaram Nanthini, Gincy P. Thottathil, Nazalan Najimudin, Kumar Sudesh
(Universiti Sains Malaysia)
-
- E-8-47 **Efficient production of hydrogen peroxide using BiVO₄ photoelectrode for effective utilization of oxidative reaction in water splitting**
Kojiro Fuku, Kazuhiro Sayama
(National Institute of Advanced Industrial Science and Technology(AIST))

-
- E-8-48 **New Green Pigment for Color Filter in Wide Color Gamut and High Brightness LCD**
Akira Kimura, Kentarou Ooishi, Keisuke Sakamoto, Katsunori Shimada
(DIC Corporation)
-
- E-8-49 **Surface activity of environment friendly amino acid-derived surfactants**
Li-Huei Lin, Yong-Han Yang
(Vanung University)
-
- E-8-50 **Screening of novel infection inhibitors targeting iron-uptake pathways against Group A streptococcus**
Masato Hoshino¹, Manuel Martinez Jose Caaveiro¹, Satoru Nagatoishi¹, Ichiro Nakagawa², Kouhei Tsumoto¹
(¹The Univ. of Tokyo, ²Kyoto Univ.)
-
- E-8-51 **Development of Organic/Inorganic Hybrids Inspired by Crustacean Biomineralization**
Shunichi Matsumura, Satoshi Kajiyama, Tatsuya Nishimura, Takashi Kato
(The Univ. of Tokyo)
-
- E-8-52 **Thermal Conductive Sheet Materials Containing Vertically Oriented Graphite Fillers (Product name : TC-Series)**
Toru Yoshikawa, Rei Yamamoto, Michiaki Yajima, Motoaki Yui
(Hitachi Chemical Co.,Ltd.)
-
- E-8-53 **Recycling Process of Pre-consumer Recycled Polypropylene to establish an environmentally benign material cycle**
Aya Tominaga¹, Hiroshi Sekiguchi¹, Ryoko Nakano¹, Shigeru Yao¹, Eiichi Takatori²
(¹Fukuoka Univ., ²TOSOH A&R Center Co. Ltd.)
-
- E-8-54 **Development of Solvent-free Analysis Method for Environmental Hazardous Substances Utilizing IAMS and Py-GC/MS**
Mitsuhiro Oki¹, Yuka Sato¹, Asato Kondo¹, Saeko Hattori²
(¹Toshiba Corporation, ²Toshiba Environmental Solutions Corporation)
-
- E-8-55 **Charge-carrier trap evaluation by thermoluminescence in crystalline tris(2-phenylpyridine) iridium**
Noriyuki Takada
(National Inst.of Advanced Industrial Science and Technology (AIST))
-
- E-8-56 **Developing the Green Synthesis Index: A case study of carbon nanotubes production**
John Ephraim Torres, Michael Angelo Pomentilla
(De La Salle Univ.)
-
- E-8-57 **X-ray free electron laser SACLA: An ultrafast probe for photochemistry**
Kensuke Tono^{1,2}
(¹Japan Synchrotron Radiation Research Inst., ²RIKEN SPring-8 Center)
-
- E-8-58 **Temperature Profile and Particle Size Distribution in the Diffusion Flame Spray Pyrolysis: Computational Fluid Dynamics Approach**
Eka L. Septiani, W Widiyastuti, Siti Machmudah, Tantular Nurtono, Kusdianto, Sugeng Winardi
(Sepuluh Nopember Institute of Technology)
-
- E-8-59 **Olefin metathesis a tool for sustainable and green chemistry**
Jacek Rajewski
(Apeiron Synthesis S.A.)