

## Time Tables

December 5, 2015

	<b>EL11 (@Lecture Building for Faculty of Engineering)</b>
17:00 – 18:00	Reception & Registration

December 6, 2015

	Room P	Room A	Room B	Room C	Room D
9:00 – 9:20	Opening Ceremony				
9:20 – 10:00	Plenary Lecture 1 Prof. Y. Uemura				
10:10 – 11:25		Session A1 (Renewable Energy 1) S. Nomura H. Tagaya	Session B1 (Renewable Energy 5) Y. Nakayama Y. Uemura	Session C1 (Nanotechnology 1) H. Toyota T. Charinpanitkul	Session D1 (Innovative Technology 1) Y. Iwamoto Z. Xia
11:35 – 12:35		Session A2 (Renewable Energy 2) K. Matsuura Y. Matsumura	Session B2 (Renewable Energy 6) K. Tanoue Y. Nakayama	Session C2 (Nanotechnology 2) S. Inoue H. Toyota	Session D2 (Innovative Technology 2) M. Nakahara Y. Iwamoto
13:30 – 14:10	Plenary Lecture 2 Prof. R. Moriwaki				
14:20 – 15:35		Session A3 (Renewable Energy 3) Y. Matsumura S. Nomura	Session B3 (Renewable Energy 7) Y. Uemura Y. Nakashimada	Session C3 (Nanotechnology 3) A. Ramli S. Inoue	Session D3 (Innovative Technology 3) Z. Xia M. Nakahara
15:45 – 16:45		Session A4 (Renewable Energy 4) Y. Nakashimada K. Matsuura	Session B4 (Renewable Energy 8) A. Nishimura K. Tanoue	Session C4 (Nanotechnology 4) T. Charinpanitkul M. Osada	
17:30 – 19:30	Banquet (@University Hall)				

December 7, 2015

9:50	Departure (@ Main Gate of Johoku Campus, Ehime University)
10:20 – 11:40	Nuclear Research & Training Center (Shikoku Electric Power Co.)
12:00 – 13:00	Lunch
13:30 – 14:30	Matsuyama Solar Power Plant (Shikoku Electric Power Co.)
15:00 – 16:00	Matsuyama Castle
16:20	Arrival (@ Main Gate of Johoku Campus, Ehime University)

Program of  
The 4th Joint Conference on Renewable Energy and Nanotechnology  
(JCREN2015)

December 6, 2015  
Johoku Campus, Ehime University

**[Plenary Session]**

**Room P**

- 9:20 – 10:00    Biomass-fired Space Cooling System as a Sustainable Use of Biomass Residue in Malaysia  
Prof. Yoshimitsu Uemura (Universiti Teknologi Petronas)
- 13:30 – 14:10    Solar Power for Smart Environment  
Prof. Ryo Moriwaki (Ehime University)

**[Oral Session]**

**Room A**

**Session A1 (Renewable Energy 1) 10:10 - 11:25**

**Chair: Shinfuku Nomura (Ehime Univ.), Hideyuki Tagaya (Yamagata Univ.)**

- A11    General Reaction Rate Equation for Biodiesel Production in Supercritical Methanol  
Obie Farobie (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- A12    Study on the influence of major components of woody biomass heat of reaction on the thermal conduction during pyrolysis.  
Yuki Hamaoka (Yamaguchi Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.), Yoshimitsu Uemura (PETRONAS Tech Univ.), Miki Taniguchi (ChugaiRo Co.ltd), Ken-ichi Sasauchi (ChugaiRo Co.ltd)
- A13    Effect of pretreatment by sulfuric acid on cellulose decomposition using the in-liquid plasma method

Kazuki Tange (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu Mukasa (Ehime Univ.), Hiromichi Toyota (Ehime Univ.), Fadhli Syahril (Ehime Univ.)

- A14 Behavior of Alginic Acid During Hydrothermal Pretreatment of Kelp  
Yukihiko Matsumura (Hiroshima Univ.), Hiroshi Ito (Hiroshima Univ.), Tsunehiro Aki (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.), Yoshiko Okamura (Hiroshima Univ.), Takahisa Tajima (Hiroshima Univ.)
- A15 Gasification Behaviors of Glutamic acid as a Model Compound of Food Waste in Supercritical Water  
Poomkawe Changkiendee (Hiroshima Univ., Chulalongkorn Univ.), Thachanan Samanmulya (Hiroshima Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.), Chalita Ratanatawanate (National Nanotechnology Center), Yukihiko Matsumura (Hiroshima Univ.)

**Session A2 (Renewable Energy 2) 11:35 - 12:35**

**Chair: Kazuo Matsuura (Ehime Univ.), Yukihiko Matsumura (Hiroshima Univ.)**

- A21 Influence of Forming Pressure on Properties of Biocoke from Used Coffee Ground.  
Supitchaya Cherdkeattikul (Thai-Nichi Institute of Technology), Peeradej Saisermasak (Thai-Nichi Institute of Technology), Jintawat Chaichanawong (Thai-Nichi Institute of Technology)
- A22 Effect of Forming Temperature on Properties of Biocoke from Leucaena Wood Chips.  
Peeradej Saisermasak (Thai-Nichi Institute of Technology), Supitchaya Cherdkeattikul (Thai-Nichi Institute of Technology), Jintawat Chaichanawong (Thai-Nichi Institute of Technology)
- A23 Suppression of Char Formation in Supercritical Water Gasification of Shochu Residue by Acetic Acid  
Yukihiko Matsumura (Hiroshima Univ.), Yusuke Takase (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Takahito Inoue (Fukken Co.), Yoshifumi Kawai (Chuden Plant, Co., Ltd.), Takashi Noguchi (Toyo Koatsu, Co., Ltd.), Hiroaki Tanigawa (Chugoku Electric Power, Co., Inc.)
- A24 Effect of Heating Rate on Gasification Characteristics of Shochu Residue in Supercritical Water  
Poomkawe Changkiendee (Hiroshima Univ.), Shuhei Inoue (Hiroshima

Univ.), Takahito Inoue (Fukken Co.), Yoshifumi Kawai (Chuden Plant, Co., Ltd.), Takashi Noguchi (Toyo Koatsu, Co., Ltd.), Hiroaki Tanigawa (Chugoku Electric Power, Co., Inc.), Yukihiko Matsumura (Hiroshima Univ.)

**Session A3 (Renewable Energy 3) 14:20 - 15:35**

**Chair: Yukihiko Matsumura (Hiroshima Univ.), Shinfuku Nomura (Ehime Univ.)**

- A31 Reaction rate determination for supercritical water gasification of shochu residue (Japanese Distilled Liquor)  
Yukihiko Matsumura (Hiroshima Univ.), Yoshiki Akeyama (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Takahito Inoue (Fukken Co.), Yoshifumi Kawai (Chuden Plant, Co., Ltd.), Takashi Noguchi (Toyo Koatsu, Co., Ltd.), Hiroaki Tanigawa (Chugoku Electric Power, Co., Inc.)
- A32 Effect of acetic acid on char suppression during supercritical water gasification of shochu residue (Japanese Distilled Liquor)  
Yukihiko Matsumura (Hiroshima Univ.), Satoshi Goto (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Takahito Inoue (Fukken Co.), Yoshifumi Kawai (Chuden Plant, Co., Ltd.), Takashi Noguchi (Toyo Koatsu, Co., Ltd.), Hiroaki Tanigawa (Chugoku Electric Power, Co., Inc.)
- A33 Anaerobic Digestion from Fishery Waste and Activated Sludge in a Large-scale Reactor  
Kenji Takisawa (Tohoku Univ.), Chika Tada (Tohoku Univ.)
- A34 Analysis of solid part of shochu residue for its supercritical water gasification  
Pattraporn Changsuwan (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Takahito Inoue (Fukken Co.), Yoshifumi Kawai (Chuden Plant, Co., Ltd.), Takashi Noguchi (Toyo Koatsu, Co., Ltd.), Hiroaki Tanigawa (Chugoku Electric Power, Co., Inc.), Yukihiko Matsumura (Hiroshima Univ.)
- A35 Comparison of Multiple Regression Analyses for Napier Grass Yield Prediction  
Kotchakarn Nantasaksiri (Thai-Nichi Institute of Technology), Patcharawat Chareon-amornkitt (Thai-Nichi Institute of Technology), Paopat Ratpunpairoj (Sirindhorn International Institute of Technology), Nuttapol Limjeerajarus (Thai-Nichi Institute of Technology)

**Session A4 (Renewable Energy 4) 15:45 - 16:45**

**Chair: Yutaka Nakashimada (Hiroshima Univ.), Kazuo Matsuura (Ehime Univ.)**

- A41 Effect of Cellobiose on Dissolution of Cellulose into Water Under Hydrothermal Condition  
Warat Kosacarn (Hiroshima Univ.), Rapeeporn Tanpratoomvong (Chulalongkorn Univ.), Thun Leewisuttikul (Hiroshima Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.), Yukihiko Matsumura (Hiroshima Univ.)
- A42 Effects of Catalyst Concentration and Residence time on Transesterification of Palm Oil with Methanol using a 1.0 mm ID Millichannel Reactor  
Nurul Asyikin Mohd Azam (Universiti Teknologi PETRONAS), Yoshimitsu Uemura (Universiti Teknologi PETRONAS), Katsuki Kusakabe (Sojo Univ.), Mohamad Azmi Bustam (Universiti Teknologi PETRONAS)
- A43 Study on Characteristics of Mannitol and Sorbitol under Hydrothermal Condition  
Rozyanti Mohamad (Hiroshima Univ.), Tsunehiro Aki (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.), Yoshiko Okamura (Hiroshima Univ.), Takahisa Tajima (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.)
- A44 Investigation of Products from Glucose Decomposition under Hydrothermal Reaction by Real Time Analysis of Quantitative Mass Spectrometry  
Pattasuda Duangkaew (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Tsunehiro Aki (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.), Yoshiko Okamura (Hiroshima Univ.), Takahisa Tajima (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.)

## **Room B**

### **Session B1 (Renewable Energy 5) 10:10 - 11:25**

**Chair: Yuushou Nakayama (Hiroshima Univ.), Yoshimitsu Uemura (Universiti Teknologi Petronas)**

- B11 Supercritical Water Gasification Characteristics of Asparagine  
Thachanan Samanmulya (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.)
- B12 Experimental Research on Hydrogen Production using the Steam Reforming Method in-Liquid Plasma  
Andi Amijoyo Mochtar (Ehime Univ. and Hasanuddin Univ.), Shinfuku

Nomura (Ehime Univ. ), Shinobu Mukasa (Ehime Univ.), Hiromichi Toyota (Ehime Univ.), Kohji Kawamukai (Ehime Univ.), Seitaro Furusho (Ehime Univ.)

- B13 Hydrogen Production by Dehydrogenation of Formic Acid using Iridium Catalysts  
Yuichiro Himeda (AIST), Shaoan Xu (AIST), Akihiro Tsurusaki (AIST), Yuki Suna (AIST), Onishi Naoya (AIST), Yuichi Manaka (AIST), Hajime Kawanami (AIST)
- B14 Gasification Characteristics of Organic Acids under Hydrothermal Condition  
Ren Nagano (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- B15 Effect of temperature change on ethanol production using Simultaneous Saccharification and Fermentation  
Kouki Sakimoto (Hiroshima Univ.), Machi Kanna (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)

**Session B2 (Renewable Energy 6) 11:35 - 12:35**

**Chair: Ken-ichiro Tanoue (Yamaguchi Univ.), Yuushou Nakayama (Hiroshima Univ.)**

- B21 Optimization for Production of Polyhydroxybutyrate Homopolyester by Bacillus cereus C042 Bacteria by Using Raw Rice Bran Waste from Rice Bran Oil Production as a Nutrient  
Wimol Chobchuenchom (Rangsit Univ.)
- B22 The Behavior of Various Biomass after Simultaneous Pretreatment of Disk Milling and Hydrothermal Treatment  
Naruhiko Furuse (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- B23 The Production of Ethanol with Metabolism Mutant of Thermophilic Bacteria Moorella thermoacetica ATCC39073  
Yuki Iwasaki (Hiroshima Univ.), Koichiro Yoshida (Hiroshima Univ.), Akihisa Kita (Hiroshima Univ.), Shinsuke Sakai (Mitsui Engineering & Shipbuilding Co., Ltd.), Tomohiro Sho (Mitsui Engineering & Shipbuilding Co., Ltd.), Masahiro Saito (Mitsui Engineering & Shipbuilding Co., Ltd.), Katsuji Murakami (National Institute of Advanced Industrial Science and Technology), Takahisa Tajima (Hiroshima Univ.), Junichi Kato (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.)

**Session B3 (Renewable Energy 7) 14:20 - 15:35**

**Chair: Yoshimitsu Uemura (Universiti Teknologi Petronas), Yutaka Nakashimada (Hiroshima Univ.)**

- B31 Effects of Temperature and Concentration of Oxygen on Torrefaction of Empty Fruit Bunches  
Mohammad Hisham Sulaiman (Universiti Teknologi PETRONAS), Yoshimitsu Uemura (Universiti Teknologi PETRONAS), Mohammad Tazli Azizan (Universiti Teknologi PETRONAS)
- B32 Ring-Opening Addition Reaction of Cyclic Esters and Alcohol by Using Bulky Lewis Pairs  
Kentaro Yamaguchi (Hiroshima Univ.), Ryo Tanaka (Hiroshima Univ.), Yuushou Nakayama (Hiroshima Univ.), Takeshi Shiono (Hiroshima Univ.)
- B33 Ring-opening Polymerization of Cyclic Esters by Using Group 4 Transition Metal Triflate Complexes  
Hiroyuki Hirakawa (Hiroshima Univ.), Ryo Tanaka (Hiroshima Univ.), Yuushou Nakayama (Hiroshima Univ.), Takeshi Shiono (Hiroshima Univ.)
- B34 Effect of salt concentration on anaerobic digestion of macroalgae: a kinetic study  
Tomohiro Yano (Hiroshima Univ.), Shota Miyamoto (Hiroshima Univ.), Toyokazu Miura (Hiroshima Univ.), Akihisa Kita (Hiroshima Univ.), Takahisa Tajima (Hiroshima Univ.), Junichi Kato (Hiroshima Univ.), Tsunehiro Aki (Hiroshima Univ.), Yoshiko Okamura (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.)
- B35 Study on dependence of ratio of pulverized coal and polystyrene on its co-pyrolytic conversion  
Kazuhiro Kasai (Yamaguchi Univ.), Kouya Kawamoto (Yamaguchi Univ.), Takahiro Teramoto (Yamaguchi Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.), Masato Mikami (Yamaguchi Univ.), Tatsuhiko Seo (Yamaguchi Univ.)

**Session B4 (Renewable Energy 8) 15:45 - 16:45**

**Chair: Akira Nishimura (Mie Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.)**

- B41 Decomposition of Methane Hydrate by Argon Plasma Jet at Higher Pressures  
Hozutaka Tanaka (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu

- Mukasa (Ehime Univ.), Hiromichi Toyota (Ehime Univ.), Ismail Rahim (Ehime Univ.)
- B42 Assessment of Key Factors Influencing Implementation of Sedan Electric Vehicles in Bangkok  
Onthinee Payakkayart (Thai-Nichi Institute of Technology), Nuttapol Limjeerajarus (Thai-Nichi Institute of Technology)
- B43 Technology Creation for Sustainability in Kita-Hiroshima Town  
Nattacha Paksung (Hiroshima Univ.), Mattana Tunchai (Hiroshima Univ.), Junichi Kato (Hiroshima Univ.), Yutaka Nakashimada (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- B44 The Development of Disposal System of Waste Electrical and Electronic Equipment in Thailand: A Conceptual Perspective.  
Thanyaluck Yimyong (King Mongkut's Institute of Technology Ladkrabang), Thepparat Phimolsathien (King Mongkut's Institute of Technology Ladkrabang), Wannong Fongsuwan (King Mongkut's Institute of Technology Ladkrabang)

### Room C

#### Session C1 (Nanotechnology 1) 10:10 - 11:25

**Chair:** Hiromichi Toyota (Ehime Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)

- C11 Crystal and electronic structure of photochromic nano particle  
Shuhei Inoue (Hiroshima Univ.), Toshiki Matsui (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- C12 Adsorption of tetracycline using magnetic carbon nanoparticles synthesized by nebulizing pyrolysis of glycerol and ferrocene  
Konrat Kerdnawee (Chulalongkorn Univ.), Thipok Klinpakdee (Chulalongkorn Univ.), Weerawut Chaiwat (Mahidol Univ.), Noriaki Sano (Kyoto Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)
- C13 CO<sub>2</sub> Adsorption Behavior of Diethanolamine (DEA) modified Si-MCM-41  
Anita Ramli (Universiti Teknologi PETRONAS), Sohail Ahmed (Universiti Teknologi PETRONAS), Suzana Yusup (Universiti Teknologi PETRONAS)
- C14 Study on relationship between temperature distribution and the size of SiO<sub>2</sub> nanoparticles formed in the premixed flame

Toshihiro Ishi (Yamaguchi Univ.), Inada Naoya (Yamaguchi Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.)

C15 Hybridization of CNTs with Fe nanoparticles for conversion of cellulose to levulinic acid

Jirarat Kaewngam (Chulalongkorn Univ.), Konrat Kerdnawee (Chulalongkorn Univ.), Chompoopitch Termvidchakorn (Chulalongkorn Univ.), Sanchai Kuboon (National Nanotechnology Center), Nawin Viriyaempikul (National Nanotechnology Center), Kajornsak Faungnawakij (National Nanotechnology Center), Tawatchai Charinpanitkul (Chulalongkorn Univ.)

### **Session C2 (Nanotechnology 2) 11:35 - 12:35**

**Chair: Shuhei Inoue (Hiroshima Univ.), Hiromichi Toyota (Ehime Univ.)**

C21 Preparation nanofibers from citrus peel using pectinase

Akihiro Hiden (Ehime Univ.), Hiromi Uchimura (Ehime Univ.)

C22 Catalytic activity of sulfonated carbon nanotubes in the dehydration of xylose to furfural

Chompoopitch Termvidchakorn (Chulalongkorn Univ.), Nawin Viriyaempikul (National Nanotechnology Center), Kajornsak Faungnawakij (National Nanotechnology Center), Noriaki Sano (Kyoto Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)

C23 Response characteristic and detection mechanism of simple gas sensor made of carbon nanotube

Takuya Kokabu (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.)

C24 Synthesis of single-wall carbon nanotubes using in-liquid CVD method

Hiromichi Toyota (Ehime Univ.), Yoshinari Kato (Kohle Tech Co.,Ltd), Yu Shibano (Ehime Univ.), Xia Zhu (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu Mukasa (Ehime Univ.)

### **Session C3 (Nanotechnology 3) 14:20 - 15:35**

**Chair: Anita Ramli (Universiti Teknologi Petronas), Shuhei Inoue (Hiroshima Univ.)**

C31 Production of Fe-hybridized carbon powder from water hyacinth using hydrothermal carbonization

Thantorn Vanavanichkul (Chulalongkorn Univ.), Chompoopitch

Termvidchakorn (Chulalongkorn Univ.), Chantamane Poonjarernsilp (Rajamangala Univ. of Technology Krungthep), Nawin Viriya-empikul (National Science and Technology Development Agency), Kajornsak Faungnawakij (National Science and Technology Development Agency), Shuhei Inoue (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)

- C32 Qualitative analysis of source gases in chemical vapor deposition synthesis of carbon nanotube  
Shuhei Inoue (Hiroshima Univ.), Yuna Yamamoto (Hiroshima Univ.), Yosuke Ohga (Hiroshima Univ.), Yukihiko Matsumura (Hiroshima Univ.)
- C33 Synthesis of diamond film by in-liquid plasma CVD  
Hiromichi Toyota (Ehime Univ.), Taishi Kubo (Ehime Univ.), Xia Zhu (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu Mukasa (Ehime Univ.)
- C34  $\beta$ -Chitin Nanofiber Production from Squid Pen using a Wet Pulverizer  
Mitsumasa Osada (Shinshu Univ.), Shin Suenaga (Shinshu Univ.), Kazuhide Totani (National Institute of Technology, Ichinoseki College), Yoshihiro Nomura (Tokyo Univ. of Agriculture and Technology), Kazuhiko Yamashita (YAEGAKI Bio-industry, Inc.)
- C35 Investigation on basic in-liquid-plasma characteristics  
Xia Zhu (Ehime Univ.), Motoshi Kawaguchi (Ehime Univ.), Ryohei Fujibayashi (Ehime Univ.), Hiromichi Toyota (Ehime Univ.), Yukiharu Iwamoto (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu Mukasa (Ehime Univ.)

**Session C4 (Nanotechnology 4) 15:45 - 16:45**

**Chair: Tawatchai Charinpanitkul (Chulalongkorn Univ.), Mitsumasa Osada (Shinshu Univ.)**

- C41 Experimental investigation on water splitting reaction using ZnO with different morphology  
Kavin Teenakul (Chulalongkorn Univ.), Supab Choopun (Chiang Mai Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)
- C42 Study on kinetics of thin TiN film formation in tubular thermal CVD reactor  
Takahoshi Omayu (Yamaguchi Univ.), Yuya Hatori (Ube Industries,ltd), Tsutomu Bessho (Yamaguchi Univ.), Masaki Kawabata (Yamaguchi Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.)

- C43 Activation energy of catalyst species for synthesis of carbon nanotube  
Yosuke Ohga (Hiroshima Univ.), Shuhei Inoue (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- C44 Synthesis of the DLC film using ion plating method  
Hiromichi Toyota (Ehime Univ.), Soh Kawamoto (Ehime Univ.), Xia Zhu (Ehime Univ.), Shinfuku Nomura (Ehime Univ.), Shinobu Mukasa (Ehime Univ.)

## Room D

### **Session D1 (Innovative Technology 1) 10:10 - 11:25**

**Chair: Yukiharu Iwamoto (Ehime Univ.), Zhu Xia (Ehime Univ.)**

- D11 Optimization of Building Layouts to Increase Wind Turbine Power Output in the Built Environment  
Akira Nishimura (Mie Univ.), Masanobu Kakita (Mie Univ.), Satoshi Kitagawa (Mie Univ.), Junsuke Murata (Mie Univ.), Toshitake Ando (Mie Univ.), Yasunari Kamada (Mie Univ.), Masafumi Hirota (Mie Univ.), Mohan Lal Kolhe (Univ. of Agder)
- D12 Investigation of Transport Behaviors in a Polymer Electrolyte Fuel Cell with a Honeycomb Flow Field Design  
Nuttapol Limjeerajarus (Thai-Nichi Institute of Technology), Sarunyoo Chitcharoenwong (Thai-Nichi Institute of Technology), Thitiwut Sujaritkitpaisarn (Thai-Nichi Institute of Technology), Patcharawat Charoen-amornkitt (Thai-Nichi Institute of Technology)
- D13 Numerical study on secondary atomization of a water-in-oil emulsion fuel droplet  
Yuta Morishita (Ehime Univ.), Kazuo Matsuura (Ehime Univ.)
- D14 Numerical Analysis of Dissolution of Cellulose Packed Bed during Hydrothermal Treatment  
Hitoshi Kawasaki (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)
- D15 Dissolution of Cellulose Packed Bed under Sodium Hydroxide Solution  
Naoki Yamaguchi (Hiroshima Univ.), Yukihiro Matsumura (Hiroshima Univ.)

**Session D2 (Innovative Technology 2) 11:35 - 12:35**

**Chair: Masaya Nakahara (Ehime Univ.), Yukiharu Iwamoto (Ehime Univ.)**

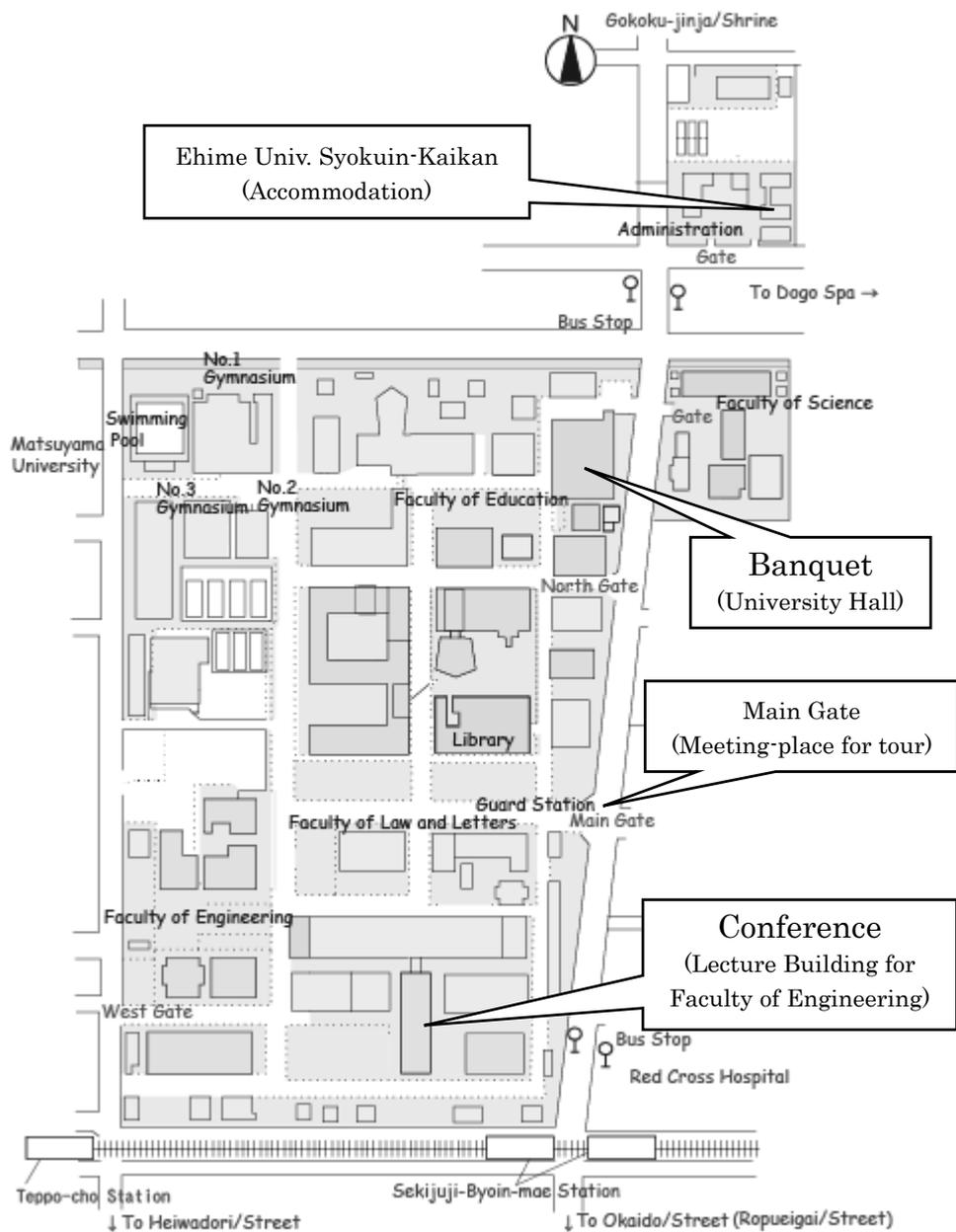
- D21 An Experimental Study on Local Flame Displacement Velocity on Turbulent Burning Velocity for Lean H<sub>2</sub>-C<sub>3</sub>H<sub>8</sub>-Air Mixtures  
Hikaru Hyodo (Ehime Univ.), Masaya Nakahara (Ehime Univ.), Kohei Okayama (Ehime Univ.), Fumiaki Abe (Ehime Univ.)
- D22 Study on horizontal temperature distribution on a heated disc in cylindrical flow channel  
Hirofumi Kuniyasu (Yamaguchi Univ.), Satoki Ishida (Yamaguchi Univ.), Ken-ichiro Tanoue (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.)
- D23 Modification of Poly(L-lactide) by Introduction of Ionic Groups  
Yuushou Nakayama (Hiroshima Univ.), Takamichi Inaba (Hiroshima Univ.), Yosuke Toda (Hiroshima Univ.), Toshitaka Ohmori (Hiroshima Univ.), Ryo Tanaka (Hiroshima Univ.), Zhengguo Cai (Donghua Univ.), Takeshi Shiono (Hiroshima Univ.), Hiroyuki Shirahama (Hiroshima Univ.), Chikara Tsutsumi (Niihama National College of Technology)
- D24 Numerical Investigation of Shear Stress Distribution Created by a Rotating Disk over a Cell Culture Plate  
Patcharawat Charoen-amornkitt (Thai-Nichi Institute of Technology), Nuttapol Limjeerajarus (Thai-Nichi Institute of Technology)

**Session D3 (Innovative Technology 3) 14:20 - 15:35**

**Chair: Zhu Xia (Ehime Univ.), Masaya Nakahara (Ehime Univ.)**

- D31 An Experimental Study on Burning Velocity Characteristics for Meso-scale Propagating Spherical Laminar Flames of Stoichiometric H<sub>2</sub>-O<sub>2</sub>-Dilution Gas Mixtures  
Wataru Ikegami (Ehime Univ.), Masaya Nakahara (Ehime Univ.), Itaru Yanagihara (Ehime Univ.), Fumiaki Abe (Ehime Univ.)
- D32 Study on Propagation of Reaction Front with Semicylindrical Protuberances during 2 Step Reactions between Acetic Acid Aqueous Solution and Sodium Hydroxide one  
Ken-ichiro Tanoue (Yamaguchi Univ.), Yuuken Iwamoto (Yamaguchi Univ.), Tatsuo Nishimura (Yamaguchi Univ.)

- D33 The effect of solvents on the liquid phase decomposition of polymeric compounds  
Takuya Takahashi (Yamagata Univ.), Hideyuki Tagaya (Yamagata Univ.)
- D34 Effect of partial pressure and temperature on absorption of CO<sub>2</sub> in 3-Amino-1-Propanol  
Katanyuta Photien (Chulalongkorn Univ.), Kreangkrai Maneeintr (Chulalongkorn Univ.), Takafumi Seto (Kanazawa Univ.), Yoshio Otani (Kanazawa Univ.), Tawatchai Charinpanitkul (Chulalongkorn Univ.)
- D35 Synthesis and Properties of Stereoblock Copolymers Composed of Lactide/ $\epsilon$ -Caprolactone/ Depsipeptide  
Yasuhiro Kuramoto (Hiroshima Univ.), Ryo Tanaka (Hiroshima Univ.), Yuushou Nakayama (Hiroshima Univ.), Takeshi Shiono (Hiroshima Univ.), Hiroyuki Shirahama (Hiroshima Univ.)

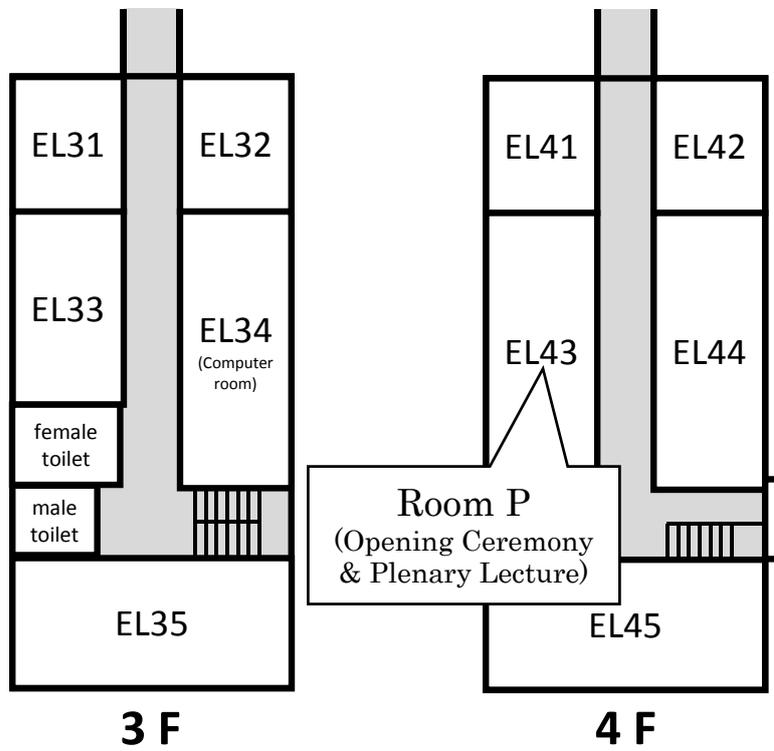
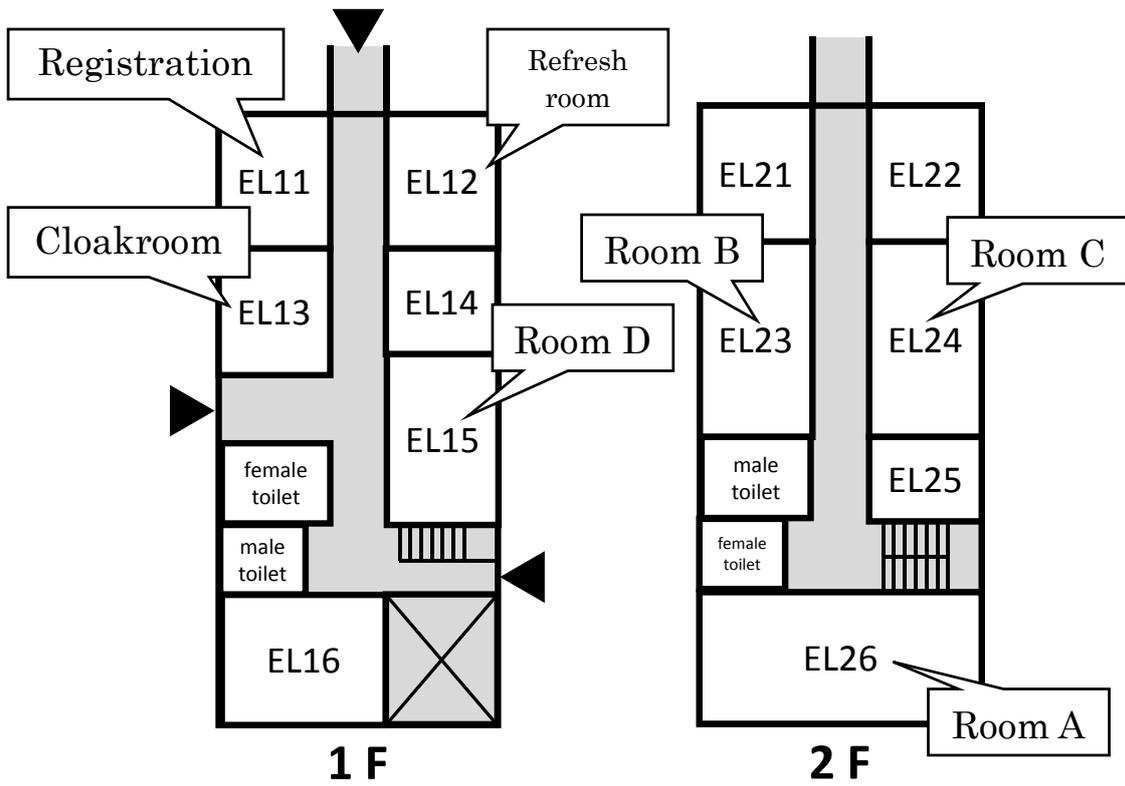


## Johoku Campus, Ehime University

**To JR Matsuyama Station:** ride a Tram Line #2 from Sekijuji-Byoin-Mae Sta. to Mastuyama-Eki-Mae Sta. (18 min).

**To Matsuyama Airport:** to JR Matsuyama Station, and then ride a Shuttle Bus (Limousine Bus) (Bus-riding time: 15 min).

**To Dogo Spa:** walk (20 min), or ride a Tram Line #1 from Sekijuji-Byoin-mae Sta. to Kamiichiman Sta. (get a transfer ticket when you pay the money), and then ride a Tram Line #3, 5 or 6 from the opposite platform to Dogo-Onsen Sta. (13 min).



Conference Rooms