

ACBS2018b Scientific Program

Tentative

(Tentative, July.10)

Organized by: Biomass Division, Japan Institute of Energy

Co-organized by: Asia Biomass Association, Bogor Agricultural University (IPB), Hiroshima University

Date: July 31st, 2018

Venue: IPB International Convention Center at Botani Square, Bogor, Indonesia

Plenary lecture

Chair: Dr. Yukihiro Matsumura (Hiroshima University)

- 9:15 PL1 Trends of Biomass Utilization in Japan Under International Relations
Masahiro SAMEJIMA
(Department of Biomaterial Sciences, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan)

Oral presentation 9:50-12:00, 14:10-17:30

Session OA Biomass resource and pretreatment

Chair: Dr. Hiroshi Nonaka (Mie University, Japan)

- 9:50 OA1 Xylan as another Recalcitrant Factor on Enzymatic Saccharification of Lignocellulosic Biomass
Kiyoshi SAKURAGI^{a,b*}, Miki KOKUBO^a, Kiyohiko IGARASHI^{a,c}, Masahiro SAMEJIMA^a
(^a The University of Tokyo, Japan, ^b Central Research Institute of Electric Power Industry, Japan, ^c VTT Technical Research Centre of Finland, Finland)
- 10:05 OA2 Detoxification of Sap Squeezed from Old Oil Palm Trunks Felled for Replanting for Efficient Lactic Acid Production
Takamitsu ARAI*, Kunasundari BALAKRISHNAN, Sudesh KUMAR, Othman SULAIMAN, Rokiah HASHIM, Syunpei AIKAWA, Akihiko KOSUGI
(Japan International Research Center for Agricultural Sciences (JIRCAS), Japan)
- 10:20 OA3 Influence of Intercropping on Immature Oil Palm Growth and CO₂ Emission After Replanting of Smallholder Oil Palm
Hariyadi^{a*}, Purwanto MYJ^b, Bayuardi W^a, Diniaty R^a, Mulyadi T^a
(^a Department of Agronomy and Horticulture, Faculty of Agriculture, Bogor Agricultural University (IPB), Indonesia, ^b Department of Civil and Environmental Engineering, Faculty of Agricultural Technology, Bogor Agricultural University (IPB), Indonesia)
- 10:35 OA4 Hydrothermal Pretreatment of Cellulose-Hemicellulose-Lignin Mixture in Hot Compressed Water
Yukihiro MATSUMURA^{a*}, Syaftika NOVI^a, Obie FAROBIE^b, Erliza HAMBALI^b, Tau Len-Kelly YONG^c, Soh Kheang LOH^d
(^a Hiroshima University, Japan, ^b Bogor Agricultural University (IPB), Indonesia, ^c University of Kuala Lumpur, Malaysia, ^d Malaysian Palm Oil Board, Malaysia)

(Break 10:50-11:00)

Session OB Gasification and combustion

Chair: Dr. Yoshimitsu Uemura

- 11:00 OB1 Making Biomass Gasification Feasible: a Policy Strategy to Increase Electrification Ratio in Indonesia
Dodik Ridho NURROCHMAT^{a*}, Mira YULIANTI^b, Budi KUNCAHYO^a
(^a Department of Forest Management, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia, ^b Ministry of Environmental and Forestry of the Republic of Indonesia, Indonesia)

- 11:15 OB2 Assessing Optimal Models of Plantation Forests for Biomass Gasification in Indonesia
Mira YULIANTI^a, Dodik Ridho NURROCHMAT^{b*}, Budi KUNCAHYO^b
(^a Ministry of Environment and Forestry of the Republic of Indonesia, Indonesia, ^b Department of Forest Management, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia)
- 11:30 OB3 The Influence of Wood Pellet Feedstock Water Content on Tar Component in Biomass System Using Downdraft Gasifier
Rizqi Fitri NARYANTO^{a,b*}
(^a Mechanical Science and Engineering, Kanazawa University, Japan, ^b Departement of Mechanical Engineering, Semarang State University, Indonesia)
- 11:45 OB4 Gasification Characteristics of Sewage Sludge in Water Under Subcritical Conditions
Apip AMRULLAH*, Yukihiko MATSUMURA
(Hiroshima University, Japan)

(Lunch 12:00-13:00)

(Poster presentation 13:00-14:00)

Session OC Solid products

Chair: Dr. Haruhiro Fujita (Bogor Agglicultrural University, Indonesia / Niigata University of International and Information Studies, Japan)

- 14:10 OC1 Extraction of Lignin from Oil Palm Empty Fruit Bunch Using Subcritical Fluid Technology as Precursor Material for Carbon Fibre Production
Vijayaletchmy KARUNAKARAN*, Sharifah Sopliah ABDULLAH, Kelly Tau Len YONG
(Universiti Kuala Lumpur, Malaysian Institute of Chemical and Bioengineering Technology (UniKL MICET), Malaysia)
- 14:25 OC2 Production Test of Torrefied Woody Biomass Solid Fuel in an Original Small Scale Plant -(2) Continuous Operation of The Plant
Takahiro YOSHIDA^{a*}, Yoshitaka KUBOJIMA^a, Daisuke KAMIKAWA^a, Makoto KIGUCHI^b, Kojiro TANAKA^c, Megumi MASUI^c, Yoshifumi OHYABU^d, Akio KOBAYASHI^d, Hironori IGARASHI^d
(^a Forestry and Forest Products Research Institute, Japan, ^b Nihon University, Japan, ^c Actree Corporation, Japan, ^d Sanyo Trading Co. Ltd., Japan)
- 14:40 OC3 Optimization Particle Size, Reaction Time and Moisture Content of Oil Palm Empty Fruit Bunch by Ozonolysis Pretreatment
Efri MARDAWATI*, Herlin HERLIANSAH, Edy SURYADI, In In HANIDAH, Imas Siti SETIASIH
(Padjadjaran University, Indonesia)
- 14:55 OC4 Characterization of Nano Fibrillated Cellulose from Empty Fruit Bunch and Its Potential for Surfactant Surface Modification to Improve PLA Composite Properties
Dwi Yuni HASTATI*, Erliza HAMBALI, Khaswar SYAMSU, Endang WARSIKI
(Agroindustrial Technology, Bogor Agricultural University (IPB), Indonesia)

(Break 15:10-15:20)

Session OD Liquid fuels

Chair: Dr. Erliza Hambali (Bogor Agglicultrural University, Indonesia)

- 15:20 OD1 Pretreatment of Heavy Tar and Plastic Mixture for Liquid Fuel Production
Chuntima CHUNTI*, Reiji NODA
(Gunma University, Japan)
- 15:35 OD2 Overall Transesterification Rate of Oil in Methanol-Oil Two-Phase System: a Stagnant Diffusion Model
Yoshimitsu UEMURA^{a*}, Keishi NAGAO^b, Fon Yee HAN^a, Thanh Tien NGUYEN^a, Thanh Hoai TRINH^a, Katsuki KUSAKABE^b
(^a Universiti Teknologi Petronas, Malaysia, ^b Sojo University, Japan)

- 15:50 OD3 Thermochemical Conversion of Native Microalgae Biomass into Biocrude by Continuous Hydrothermal Liquefaction Process
Ankit JAIN^{a*}, Satoshi MATSUMOTO^a, Toru ARAMAKI^a, Takumi GOHARA^a, Junko ITO^b, Ryozo NOGUCHI^{a,b}, Makoto M. WATANABE^{a,b}, Mitsutoshi NAKAJIMA^{a,b}, Sosaku ICHIKAWA^{a,b}
(^a Faculty of Life and Environmental Sciences, University of Tsukuba, Japan, ^b Algae Biomass and Energy System R&D Center, University of Tsukuba, Japan)
- 16:05 OD4 Characteristics of Bio Oil Hydrothermal Pyrolysis of Oil Palm Empty Fruit Bunches Based on Size of Powder and Pressure of Hydrogen Gas
Rina Novia YANTI^{a,b*}
(^a Natural Resource and Environmental Management Study Program, Bogor Agricultural University (IPB), Indonesia, ^b Forestry of Faculty, Lancang Kuning of University Indonesia, Indonesia),

(Break 16:20-16:30)

Session OE Chemical production and assessment
Chair: Dr. Akihiro Hiden (Ehime University, Japan)

- 16:30 OE1 Cost and GHG Emissions Reduction Analysis of Fishermen's Ice Maker Development in Karimunjawa Using PV and Biobased Diesel Engine as Energy Supply
Mukhlis ALI^{*}, Yuli Setyo INDARTONO, Harry Setyo WIBOWO
(Faculty of Mechanical and Aerospace Engineering, Bandung Institute of Technology, Indonesia)
- 16:45 OE2 Genome Analysis of *Herbivorax saccincola* A7, a Cellulolytic-Xylanolytic Thermophilic Anaerobe
Shimpei AIKAWA^{a*}, Sirilak BARAMEE^b, Junjarus SERMSATHANASWADI^c, Phakhinee THIANHENG^b, Chakrit TACHAAPAUKOON^b, Ayumi SHIKATA^d, Rattiya WAEONUKUL^b, Patthra PASON^b, Khanok RATANAKHANOKCHAI^b, Akihiko KOSUGI^a
(^a Japan International Research Center for Agricultural Sciences (JIRCAS), Japan, ^b King Mongkut's University of Technology Thonburi (KMUTT), Thailand, ^c Suan Dusit University, Thailand, ^d University of Tsukuba, Japan)
- 17:00 OE3 Economic Analysis of 2nd Generation Biofuel Production Process from Oil Palm Empty Fruit Bunches
Obie FAROBIE^{a*}, Erliza HAMBALI^a, Mira RIVAI^a, Nindiyo CAROKO^b, Septhian MARNO^b, Ari Imam SUTANTO^a
(^a Surfactant and Bioenergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^b Pertamina RTC, Indonesia)
- 17:15 OE4 Greenhouse Gas Emission of an Electricity Generation Use and a Field Abandonment of Empty Fruit Bunch at a Palm Oil Mill, Surat Thani Province, Thailand
Haruhiro FUJITA^{a*}, Katsuyuki NAKANO^b, Tawee CHAISOMPLOB^c, Erliza HAMBALI^a
(^a Surfactant & Bioenergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^b College of Policy Science, Ritsumeikan University, Japan, ^c School of International Institute of Technology, Thammasat University, Thailand)

Poster presentation 13:00-14:00

PA-Biomass resource and pretreatment

- PA1 Prediction of Microalgae Total Solid Concentration by Using Image Pattern Technique
Haikal Nando WINATA^{a*}, Ryozo NOGUCHI^b, Muhammad Ansori NASUTION^a
(^a Graduate School, Life and Environmental Sciences, University of Tsukuba, Japan, ^b Faculty of Life and Environmental Sciences, University of Tsukuba, Japan)
- PA2 Properties of Pulverization of Rice Flour Using Vibrating Mill with Ring Media
Rei SATO^{a*}, Takehiko TAKAHASHI^b, Katsuki YOKOO^b, Yukio ENDA^c, Fumihiro SUGAWARA^d
(^a Graduate School of Systems Science and Technology, Akita Prefectural University, Japan, ^b Akita Prefectural University, Japan, ^c Akita Industrial Technology Center, Japan, ^d Nihon Seiki Co., Ltd., Japan)

- PA3 Characteristic Analysis of Japanese Cedar Powder from Vibration Mill with Ring Media Pulverization by Solid State NMR
Yuma HATAKEYAMA^{a*}, Takehiko TAKAHASHI^b
(^a Graduate School of Systems Science and Technology, Akita Prefectural University, Japan, ^b Akita Prefectural University, Japan)
- PA4 Effect of Profitability Improvement in Case Where Lumber Companies Have Carried Out Biomass Power Generation Business
Hirotaka KOMATA^{a*}, Yoshio ISHIKAWA^a, Hirofumi KUBOYAMA^b
(^a Hokkaido Research Organization, Japan, ^b Forestry and Forest Products Research Institute, Japan)
- PA5 Effect of Ring and Rod Media Combination for Continuous Pulverization by Tandem Ring Mill
Takehiko TAKAHASHI*
(Akita Prefectural University, Japan)
- PA6 Substrate Specificity and Kinetic Analysis of Beta-Xylosidase from the basidiomycete *Phanerochaete chrysosporium*
Keisuke KOJIMA*, Naoki SUNAGAWA, Kiyohiko IGARASHI, Masahiro SAMEJIMA
(The University of Tokyo, Japan),
- PA7 Economic Value of Wood Processing Mill Residues as Feedstock for Bioenergy in Indonesia
Bintang C. H. SIMANGUNSONG^{a*}, Ganesha S. J. SILALAH^a, Muhamad D. G. MAULANA^a, Vera J SITANGGANG^a, Elisa G. T. MANURUNG^a, Elias ELIAS^b, Armansyah H TAMBUNAN^c
(^a Department of Forest Products, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia, ^b Department of Forest Management, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia, ^c Department of Mechanical and Bio-System Engineering, Faculty of Agricultural Engineering and Technology, Bogor Agricultural University (IPB), Indonesia)
- PA8 Economic Value of Fresh Fruit Bunch from Oil Palm Plantation as Feedstock for Bioenergy in Indonesia
Bintang C. H. SIMANGUNSONG^{a*}, Fidela FIDELA^b, Vera J SITANGGANG^a, Elisa G. T. MANURUNG^a, Armansyah H TAMBUNAN^b
(^a Department of Forest Products, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia, ^b Department of Mechanical and Bio-System Engineering, Faculty of Agricultural Engineering and Technology, Bogor Agricultural University (IPB), Indonesia)
- PA9 Significance of Tropical Wood Resources in Indonesia Related to SDGs Beyond 2030
Koichi YAMAMOTO^{a,b*}, Takahiro YOSHIDA^a
(^a Forestry and Forest Products Research Institute, Japan, ^b Japan Wood Protection Association, Institute of Asia, Japan)
- PA10 Cheese Whey as Potential Biomass for Antimicrobial Biofilm Production as Active Packaging: A Review
Isfari DINIKA^{a*}, Gemilang Lara UTAMA^{a,b}
(^a Food Technology, Faculty of Agricultural Industrial Technology, Padjadjaran University, Indonesia, ^b Center for Environment and Sustainability Science, Padjadjaran University, Indonesia)
- PA11 Transportation Model of Biomass as Biofuel Second Generation Feedstock in Indonesia
Hendri WIJAYA*, Erliza HAMBALI, Yandra ARKEMAN
(Bogor Agricultural University (IPB), Indonesia)
- PA12 Effect of Organosolv Pretreatment on Enzymatic Hydrolysis Product and Delignification for Bioethanol Feedstock from Oil Palm Empty Fruit Bunch (OPEFB)
Efri MARDAWATI^{a*}, Ibad BADRUZAMAN^a, Sarifah NURJANAH^b, Yazid BINDAR^c
(^a Departement of Agroindustrial Technology, Padjadjaran University, Indonesia, ^b Departement of Agricultural Engineering, Padjadjaran University, Indonesia, ^c Departement of Chemical Engineering, Bandung Institute of Technology, Indonesia)
- PA13 Optimising Sterilization Process on Vertical Sterilizer in Palm Oil Mill
Dennie POHAN*, Herri SUSANTO
(Bandung Institute of Technology, Indonesia)

PB-Gasification, combustion, and sub- and super-critical

- PB1 An Exergy Analysis of Hydrogen Production Process in Consideration of LCA
Eiki TAKEMURA^{a*}, Mitsuo KAMEYAMA^b, Hisashi KAMIUCHI^b, Yuna SEO^a, Kiyoshi DOWAKI^a
(^a Department of Industrial Administration, Graduate School of Science and Technology, Tokyo University of Science, Japan, ^b Japan Blue Energy Co., Ltd. , Japan)
- PB2 Baseline Study of Green House Gas (GHG) Emission from Open Digesting Tanks of Biogas Plant for Dairy Slurry in Spring Snowment Period
Yoshiaki KIMURA^{a*}, Seiichi YASUI^b, Hiroki KATOU^a, Kazuma OZAKI^b, Kunihiko YOSHIDA^a, Kazato OOISHI^c, Takashi OSADA^d
(^a Hokkaido Research Organization, Japan, ^b Air Water Inc, Japan, ^c Kyoto University, Japan, ^d National Agriculture and Food Research Organization, Japan)
- PB3 Characteristics of Agricultural Waste on Small-Scale Downdraft Gasification Systems
Syukri Muhammad NUR*, Erkata YANDRI, Tanda Akhesta SUNU, Jumino, Aep Saipul UYUN, Kamaruddin ABDULLAH
(Study Program of Renewable Energy, Darma Persada University, Indonesia)
- PB4 Stand-Alone System of Pyrolysis Stove for Producing Biochar, Thermal Energy, and Power Generation
Dwi SETIAWAN^{a*}, Johanis R. PANGALA^b, I Dewa Made SUBRATA^a, Yohanes Aris PURWANTO^a, Armansyah Halomoan TAMBUNAN^a
(^a Department of Mechanical and Biosystem Engineering, Bogor Agricultural University (IPB), Indonesia, ^b Study Program of Natural Resources and Environmental Management, Bogor Agricultural University (IPB), Indonesia)
- PB5 Co-Gasification of Oil Palm Frond and Polypropylene Blends: Effect of Plastic Blend Percentage
Mohd Hafif BASHA*, Shaharin Anwar SULAIMAN, Yoshimitsu UEMURA
(Universiti Teknologi Petronas, Malaysia)
- PB6 Selection of Biomass Cookstove Using Analytic Hierarchy Process
Agah D. GARNADI^{a*}, Dominicus Savio PRIYARSONO^a, Irzaman - HUSEIN^a, Hanni - GARMINIA^b, Pudji Astuti WALUYO^b
(^a Bogor Agricultural University (IPB), Indonesia, ^b Bandung Institute of Technology, Indonesia)
- PB7 The Effect of Reaction Temperature, Time and Solid Loading Towards Lignin Extraction from Oil Palm Frond (OPF) Under Subcritical Phenol as Precursors for Carbon Fibre Production
Khalidatul Athirah KHALID*, Asimi Ana AHMAD, Kelly Tau Len YONG
(Universiti Kuala Lumpur, Malaysian Institute of Chemical and Bioengineering Technology (UniKL MICET), Malaysia)
- PB8 Effect of Liquid Phase Product on Enzymatic Hydrolysis for Hydrothermal Pulverization Using Disk Mill
Hiroki YOKOYAMA*, Yukihiro MATSUMURA
(Hiroshima University, Japan)
- PB9 Reaction Model of Glyceraldehyde Decomposition in Hot Compressed Water
Rahmat Iman MAINIL*, Nattacha PAKSUNG, Yukihiro MATSUMURA
(Hiroshima University, Japan)
- PB10 Combustion of Melon Seed Husks: Fuel Characterization, Thermal Degradation and Kinetic Analyses Through the Distributed Activated Energy Model
Bemgba B. NYAKUMA^{a*}, Olagoke OLADOKUN^a, Olasunkanmi O. OLAPEJU^b, Ademola B. RAHEEM^c, Yakubu D. AMINU^b
(^a Centre of Hydrogen Energy, Institute of Future Energy, Universiti Teknologi Malaysia, Malaysia, ^b Faculty of Built Environment, Universiti Teknologi Malaysia, Malaysia, ^c Department of Chemical Engineering, Faculty of Chemical and Energy Engineering, Universiti Teknologi Malaysia, Malaysia)

- PB11 Development of Biogas Supply Control System to Gas Engine
Nugroho Adi SASONGKO^{a*}, Anton RAHMAWAN^b, Arga FEBRIANTONI^b
(^a Center for Assessment of Process and Energy Industries, Agency for the Assessment and Implementation of Technology (BPPT), Indonesia, ^b Center for Energy Conversion Technology, Agency for the Assessment and Implementation of Technology (BPPT), Indonesia)

PC-Solid and liquid fuel

- PC1 An LCA Approach on Eco-Friendly Bioethanol Production Paths
Chiharu MISAKI^{*}, Yuna SEO, Kiyoshi DOWAKI
(Tokyo University of Science, Japan)
- PC2 A Pilot Plant Scaled 2nd Generation Bio-Ethanol Production from Waste Mushroom Beds in Japan
Kouji YOSHIDA^{a*}, Kiyotaka SAGA^a, Yosuke KOBAYASHI^a, Hiroto NISHIJIMA^a, Naohisa SUGIMOTO^a, Fuminori IMAI^b, Masatoshi KANEMATSU^b, Kenji YAMADA^b, Susumu ARAI^b, Yoshiya IZUMI^a
(^a Biomaterial in Tokyo Co., Ltd, Japan, ^b Sanyu Plant Service Co., Ltd, Japan)
- PC3 Torrefaction of Melon Seed Husks for Bio-Coal Production
Bemgba B. NYAKUMA^{a*}, Olagoke OLADOKUN^a, Olasunkanmi O. OLAPEJU^b, Ademola B. RAHEEM^c, Yakubu D. AMINU^d
(^a Centre of Hydrogen Energy, Institute of Future Energy, Universiti Teknologi Malaysia, Malaysia, ^b Department of Urban and Regional Planning, Federal Polytechnic Ilaro, Nigeria, ^c Department of Chemical Engineering, Faculty of Chemical and Energy Engineering, Universiti Teknologi Malaysia, Malaysia, ^d Faculty of Built Environment, Universiti Teknologi Malaysia, Malaysia)
- PC4 Effects of Substrate Concentration on Bioethanol Production from Oil Palm Empty Fruit Bunches with Simultaneous Saccharification and Fermentation (SSF)
Allyza Vianti PUTRI^{a*}, Efri MARDAWATI^a, Sarifah NURJANAH^a, Yazid BINDAR^b
(^a Padjadjaran University, Indonesia, ^b Bandung Institute of Technology, Indonesia)
- PC5 Potential Catalyst Reduction by Enhancement of Mixing Using Static Mixing Reactor for Biodiesel Production
Armansyah Halomoan TAMBUNAN^{a*}, Ni Putu Dian NITAMIWATI^a, Sri Purnama SARI^b
(^a Department of Mechanical and Biosystem Engineering, Bogor Agricultural University (IPB), Indonesia, ^b Department of Agricultural Engineering, Syiah Kuala University, Indonesia)
- PC6 Temperature and Reaction Time for Synthesis of Refined Palm Oil Bioavtur
Dwi - SETYANINGSIH^{a*}, Erliza - HAMBALI^a, Neli - MUNA^a, Shinta - PERMATASARI^b
(^a Surfactant and Bioenergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^b Department of Agroindustrial Technology, Bogor Agricultural University (IPB), Indonesia)
- PC7 The Microbiological Potential of Banana (*Musa spp.*) Waste in Ethanol Production
Gemilang Lara UTAMA^{*}, Dwi Wahyudha WIRA, Roostita Lobo BALIA
(Padjadjaran University, Indonesia)
- PC8 Milligram Scale Torrefaction of Rubber Tree
Yuto NODA^{a*}, Hiroshi NONAKA^b
(^a Faculty of Bioresources, Mie University, Japan, ^b Graduate School of Bioresources, Mie University, Japan)
- PC9 Productivities and Fatty Acid Compositions of Microalgae Diatoms *Skeletonema costatum*, *Thalassiosira Sp.* and *Chaetoceros gracilis* in Indoor and Outdoor Cultivation Systems for Biofuel Development
Mujizat KAWAROE^{a*}, Tri PRARTONO^b, Adriani SUNUDDIN^b, Yoga TRISWANTO^b, Vicky Rizky A. KATILI^b, La Ode Abdul Fajar HASIDU^b, Eko Agus SUYONO^c, Ganjar SAEFURAHMAN^a
(^a Surfactant and Bioenergy Research Center (SBRC), Bogor Agricultural University (IPB), Indonesia, ^b Department of Marine Science and Technology, Faculty of Fisheries and Marine Sciences, Bogor Agricultural University (IPB), Indonesia, ^c Faculty of Biology, Gadjah Mada University, Indonesia)

PD-Chemical and others

- PD1 Improving Sustainability of Coconut in Parigi, Indonesia Using Life Cycle Assessment (LCA) Approach
Nia DESIANA^{a,b*}, Kiyoshi DOWAKI^a, Mustika Sufiati PURWANEGARA^b
(^a Department of Industrial Administration, Tokyo University of Science, Japan, ^b School of Business and Management, Bandung Institute of Technology, Indonesia)
- PD2 Web-Based Simulation for Microalgae Production in Open Raceway Pond
Supriyanto^{a*}, Ryoza NOGUCHI^a, Devitra Saka RANI^a, Dhani S WIBAWA^a, Muhammad Ansori NASUTION^a, Tofael AHAMED^a, Mikihide DEMURA^b, Makoto M WATANABE^b
(^a Faculty of Life and Environmental Sciences, University of Tsukuba, Japan, ^b Algae Biomass and Energy System R&D Center, University of Tsukuba, Japan)
- PD3 Material Heat Balance Analysis of Wet Wood Bark Biomass Heat Supply System for Mushroom Production Farmhouse
Sota ARAI^{a*}, Takashi AMEMIYA^a, Tsuyoshi NOMA^b
(^a Nippon Institute of Technology, Japan, ^b Toshiba Infrastructure Systems and Solutions Corp. , Japan)
- PD4 Catalytic Reactivity of Intercalated Montmorillonite Clay for Glycerol Conversion to Polyglycerol via Microwave Irradiation Reactor
Muhammad SAJID^{*}, Muhammad AYOUB, Yoshimitsu UEMURA, Suzana YUSUP, Bawadi ABDULLAH
(Universiti Teknologi Petronas, Malaysia)
- PD5 Effect of Light Duration and Wavelength on Electricity Generation of a Microbial Fuel Cell (MFC) Using Activated Sludge
Thanh Hoai TRINH^{*}, Yoshimitsu UEMURA, Nga T. T. TRAN
(Universiti Teknologi Petronas, Malaysia)
- PD6 Water-Based Mud Formulation of Purified Palm Oil's Glycerol
Junicardo Frencius RAJAGUKGUK^{a*}, Erliza HAMBALI^b, Dwi SETYANINGSIH^c, Bonar Tua Halomoan MARBUN^d
(^{a*} Graduate Student Master of Science, Agroindustrial Technology, Bogor Agricultural University (IPB), Indonesia, ^b Lecturer of Agroindustrial Technology Department, Bogor Agricultural University (IPB), Indonesia, ^c Surfactant and Bionergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^d Lecturer of Petroleum Engineering Department, Bandung Institute of Technology, Indonesia)
- PD7 Formulation of Foaming Agent Using Saponification Product of Palm Oil Fatty Acid and Its Performance Tests on Peatland Fires
Purwo SUBEKTI^{a, b*}, Erliza HAMBALI^{c, d}, Ani SURYANI^{c, d}, Prayoga SURYADARMA^c, Bambang Hero SAHARJO^e, Mira RIVAI^d
(^a Program Study of Mechanical Engineering, Pasir Pengaraian University, Indonesia, ^b Program Study Agroindustrial Technology, Bogor Agricultural University (IPB), Indonesia, ^c Department of Agroindustrial Technology, Faculty of Agricultural Technology, Bogor Agricultural University (IPB), Indonesia, ^d Surfactant and Bioenergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^e Forest Fire Laboratory, Division of Forest Protection, Department of Silviculture, Faculty of Forestry, Bogor Agricultural University (IPB), Indonesia)
- PD8 Utilization of Cassava Peels (*Manihot utilissima pohl*) as Raw Materials for Producing 5-Hydroxymethylfurfural through Dehydration Reaction Using Deep Eutectic Solvents
Renita MANURUNG^{*}, Oktavianna WINDA, Herianto SILALAH
(University of Sumatera Utara, Indonesia)
- PD9 Production of 5-Hydroxylimethylfurfural from Strach of Durian Seed (*Durio Zibhetinus*) Through Dehydration Reaction Using Co-Solvent Based Choline Chloride : Glycerol
Renita MANURUNG^{*}, Iskandar ZULKARNAIN, Muhammad TAUFIK
(University of Sumatera Utara, Indonesia)

- PD10 Performances of Methyl Ester Sulfonate Acid (MESA) and Sodium Methyl Ester Sulfonate (S-MES) to Increase Crude Oil Production in Oil Wells with High Asphaltene Contents
Rista FITRIA^{a*}, Erliza HAMBALI^a, Mira RIVALI^a, Ari Imam SUTANTO^a, Agatha Maria GADI^a, Pudji PERMADI^b, Felga Zulfia RASDIANA^c
(^a Surfactant and Bioenergy Research Center, Bogor Agricultural University (IPB), Indonesia, ^b Study Program of Petroleum Engineering, Bandung Institute of Technology, Indonesia, ^c Department of Agroindustrial Technology, Bogor Agricultural University (IPB), Indonesia)
- PD11 Characterization of Nanofibers from Japanese Orange Inner Peels Prepared Using Pectinase and Diluted Alkali
Akihiro HIDENO^{a*}, Kentaro ABE^b, Hiroyuki YANO^b, Hiromi UCHIMURA^a
(^a Paper Industry Innovation Center, Ehime University, Japan, ^b Research Institute for Sustainable Humanosphere, Kyoto University, Japan)
- PD12 Esterification of OPEFB-Derived Cellulose and Mixed Esters by Deep Eutectic Solvent Assisted Amberlyst BD20 Catalyst
Tjahjono HERAWAN^{a*}, Meta RIVANI^a, Shinya YAMANAKA^b, Frisda Rimbun PANJAITAN^a
(^a Indonesian Oil Palm Research Institute, Indonesia, ^b College of Environmental Technology, Muroran Institute of Technology, Japan)
- PD13 Infiltrated Water and Runoff at 4 Gradients Slopes at People's Oil Palm Plantation in Dry Season in Jambi
Herdhata AGUSTA^{a*}, Hendrayonto^a, Mt SUNDARYANTO^a, Am DEWI^a, Yid CAHYO^a, Dan Dirk HOELSCHER^b
(^a Faculty of Agriculture/SBRC, Bogor Agricultural University (IPB), Indonesia, ^b Tropical Silviculture and Forest Ecology, Georg-August-Universität Göttingen, Germany)

**For the Poster presenter,
Official poster size is A0 (841mm X 1189mm)**

