

PROGRAM BOOK

24th Regional Symposium on Chemical Engineering (RSCE 2017)

Theme :

*"Innovations in Chemical Engineering
Toward The Application in Foods, Energies, and Materials"*

DEPARTMENT OF CHEMICAL ENGINEERING
DIPONEGORO UNIVERSITY



November 15th-16th, 2017
Patra Jasa Hotel, Semarang, Indonesia

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ORGANIZING COMMITTEE

Chair Person

Assoc Prof. Dr. Tutuk Djoko Kusworo, S.T., M.Eng

Secretary and Secretariat

Dyah Hesti Wardhani, ST, MT, PhD

Chair Person of Scientific Committee

Prof. Andri Cahyo Kumoro ST, MT, PhD

TOPICS

- A. Biochemical & Biomedical engineering
- B. Chemical Engineering Fundamental
- C. Process for Energy & Environment
- D. Nanotechnology
- E. Materials & Processing
- F. Reaction Engineering & Catalysis
- G. Systems & Control

KEYNOTE SPEAKERS

Plenary Lecture I

Mohamad Taufik Afianto

Vice President of Clean Energy Technology Development Gas & New Renewable Energy Directorate at PT Pertamina (Persero) Indonesia

Prof. Dato. Ir. Dr. Wan Ramli Wan Daud

Professor in Chemical Engineering
Department of Chemical & Process Engineering
Faculty of Engineering & Built Environment
Universiti Kebangsaan Malaysia

Plenary Lecture II

Ir. Sri Peni Inten Cahyani, M.M.

Director of Indonesia Power

Prof. I Gede Wenten, Ph.D.

Professor in Chemical Engineering
Department of Chemical Engineering,
Institut Teknologi Bandung

Prof. Dr. Ir. Budiyono, M.Si.

Prof in Chemical Engineering
Departement of Chemical Engineering
Diponegoro University

VENUE

Patra Jasa Semarang Hotel is a four star hotel. The hotel is located in South of Semarang city, on Sisingamangaraja street, Candi Baru, Semarang City, Central Java. It takes about 20 minutes driving from the Achmad Yani airport. This hotel has a wonderful view to the Port of Tanjung Emas and provides 121 rooms with different types and 25 villas. The plenary session of RSCE 2017 is conducted in Rama Shinta Ballroom and the parallel sessions are presented in 5 rooms which are Rama 1, Rama 2, Rama 3, Shinta 1, Shinta 2 for oral presentation.

Plenary Sessions

(Rama Shinta Ballroom)

Oral Presentation – Parallel Sessions

Room I : Rama 1
Room II : Rama 2
Room III : Rama 3
Room IV : Shinta 1
Room V : Shinta 2

PROGRAM

Wednesday, 15 November 2017

| Time | Program |
|---------------|---|
| 07.45 – 08.30 | Registration |
| 08.30 – 09.00 | Opening Ceremony |
| 09.00 – 10.15 | Plenary Lecture I : Mohamad Taufik Afianto and Prof. Dato' Ir. Dr. Wan Ramli Wan Daud (Chair Person : Prof. Andri C Kumoro,ST, MT, PhD) |
| 10.15 – 10.30 | Coffee Break 1 |
| 10.30 – 11.45 | Plenary Lecture II : Ir. Sri Peni Inten Cahyani, M.M, Prof. I Gede Wenten Ph.D, and Prof. Dr. Ir. Budiyo, M.Si (Chair Person : Prof. Dr. Hadiyanto, ST, MSc) |
| 11.45 – 13.00 | Luncheon Break |
| 13.00 - 15.00 | Oral Presentation – Parallel Session 1 |
| 15.00 – 15.30 | Coffee Break 2 |
| 15.30 – 17.15 | Oral Presentation – Parallel Session 2 |
| 19.00 | Gala Dinner |

Thursday, 16 November 2017

| Time | Program |
|---------------|--|
| 07.30 – 08.15 | Registration |
| 08.15 – 10.00 | Oral Presentation – Parallel Session 3 |
| 10.00 – 10.30 | Coffee Break 1 |
| 10.30 – 12.15 | Oral Presentation – Parallel Session 4 |
| 12.15 – 13.15 | Luncheon Break |
| 13.15 – 15.15 | Oral Presentation – Parallel Session 5 |
| | Closing |
| 15.15 – 15.30 | Coffee Break 2 |

Oral Presentation – Parallel Sessions

Wednesday, 15 November 2017

| Oral Presentation – Parallel Session 1 | | | | | |
|--|-------------------------------------|---|---|---|---------------------------------------|
| Time | Room I | Room II | Room III | Room IV | Room V |
| Invited Speaker | | Prof. Dr. Ir. Widodo Wahyu Purwanto, DEA | Prof. Dr. Ir. Purwanto DEA | Assoc. Prof. Dr. Moh. Fahrurrozi | Assoc. Prof. Dr. Sanggono Adisasmito |
| 12.45– 13.00 | A03 | Invited speaker | Invited speaker | Invited speaker | Invited speaker |
| 13.00- 13.15 | A04 | Invited speaker | Invited speaker | Invited speaker | Invited speaker |
| 13.15 – 13.30 | A05 | B01 | C02 | D01 | F01 |
| 13.30– 13.45 | A06 | B02 | C03 | D03 | F02 |
| 13.45– 14.00 | A08 | B03 | C04 | D07 | F03 |
| 14.00 – 14.15 | A10 | B04 | C05 | E01 | F05 |
| 14.15 – 14.30 | A45 | B05 | C06 | E07 | F06 |
| 14.30– 14.45 | A46 | B06 | C09 | E12 | F07 |
| Chair Person | Ir. Kamarza Mulia, M.Sc., Ph.D (UI) | Teguh Ariyanto, S.T., M.Eng., D.Eng (UGM) | Widyawanto Prastistho (Tokyo Institute of Technology) | Prof. Moh. Djaeni (Diponegoro University) | Dr. Ratnawati (Diponegoro University) |
| Oral Presentation – Parallel Session 2 | | | | | |
| | Room I | Room II | Room III | Room IV | Room V |
| 15.15 – 15.30 | A11 | B07 | C10 | A31 | F08 |
| 15.30– 15.45 | A18 | B10 | C13 | E13 | F10 |
| 15.45– 16.00 | A19 | B11 | C14 | E16 | F11 |
| 16.00 – 16.15 | A21 | B12 | C15 | E17 | F12 |
| 16.15 – 16.30 | A23 | B17 | C18 | E18 | F13 |
| 16.30– 16.45 | A26 | B18 | C19 | E19 | F14 |
| 16.45– 17.00 | A32 | B19 | C20 | E20 | F16 |
| Chair Person | Dr. Kusmiyati (UMY) | Dr. Nita Aryanti (Diponegoro University) | Dr. Tutuk D. Kusworo (Diponegoro University) | Dr. Suherman (Diponegoro University) | Dr. Siti Machmudah (ITS) |

Oral Presentation – Parallel Sessions

Thursday, 16 November 2017

| Oral Presentation – Parallel Session 3 | | | | | |
|--|---|--|---|---|---------------------------------------|
| Time | Room I | Room II | Room III | Room IV | Room V |
| 08.30–08.45 | A27 | B20 | C21 | E21 | F24 |
| 08.45–09.00 | A29 | B21 | C22 | E23 | F25 |
| 09.00– 09.15 | E14 | B22 | C23 | E24 | F26 |
| 09.15– 09.30 | A15 | B23 | C25 | E25 | F27 |
| 09.30–9.45 | A36 | B24 | C26 | E27 | F18 |
| 09.45– 10.00 | A39 | B25 | C29 | E30 | F23 |
| 10.00 – 10.15 | A40 | B13 | C30 | E31 | F28 |
| Chair Person | Michiaki Matsumoto (Doshisha University, JAPAN) | Dr. Setia Budi Sasongko (Diponegoro University) | Dr. Didi Dwi Anggoro (Diponegoro University) | Juwari Purwo Sutikno. M.Eng, PhD (ITS) | Dr. Asep Handaya (UI) |
| Oral Presentation – Parallel Session 4 | | | | | |
| | Room I | Room II | Room III | Room IV | Room V |
| 10.45 – 11.00 | A41 | C49 | C31 | E32 | C40 |
| 11.00 – 11.15 | A42 | C50 | C32 | E33 | C41 |
| 11.15 – 11.30 | A43 | C52 | C33 | E35 | C42 |
| 11.30 – 11.45 | B14 | C54 | C34 | E36 | C43 |
| 11.45 – 12.00 | C51 | C55 | C35 | E37 | C44 |
| 12.00 – 12.15 | C58 | C56 | C07 | E38 | C45 |
| 12.15 – 12.30 | C73 | C74 | C75 | C76 | G12 |
| | Maria N. R. Dimaano (University of Santo Tomas, Philippines) | Dr. Chairul Irawan (Lambung Mangkurat University) | Dr. Gadang (LIPI) | Dr. Wahyudiono (ITS & Nagoya University) | Setiyo Gunawan, S.T., PhD (ITS) |

Oral Presentation – Parallel Sessions

Thursday, 16 November 2017

| Program | | | | | |
|--|---|--|---|---|--|
| Oral Presentation – Parallel Session 5 | | | | | |
| Time | Room I | Room II | Room III | Room IV | Room V |
| 13.15 – 13.30 | A33 | C01 | C08 | B13 | C16 |
| 13.30 – 13.45 | A20 | C57 | C11 | C63 | C38 |
| 13.45 – 14.00 | A16 | C69 | C17 | E05 | C46 |
| 14.00 – 14.15 | A35 | C70 | C60 | E10 | C62 |
| 14.15 – 14.30 | B15 | G03 | C68 | E26 | C64 |
| 14.30 – 14.45 | B16 | G05 | C71 | E28 | C65 |
| 14.45 – 15.00 | C59 | G09 | C72 | E39 | C67 |
| 15.00 – 15.15 | E15 | A02 | F19 | A44 | C77 |
| Chair Person | Dr. Silviana (Diponegoro University) | Dr. Siswo Sumardiyono (Diponegoro University) | Dr. Suherman (Diponegoro University) | Dr. Ir. Ratnawati MT (Diponegoro University) | Dr. Andri C. Kumoro (Diponegoro University) |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|---|--|
| A-02 | Cellulase Enzyme Production From Rice Straw Using Solid State Fermentation and Fungi <i>Aspergillus niger</i> ITBCC L74 | Siti Maftukhah, Abdullah | Diponegoro University |
| A-03 | Preparation of Simvastatin Hydrogel through Arginine Addition for Drug Delivery System | Niswati Fathmah Rosyida, Teguh Ariyanto, Pinandi Sri Pudyani, Ika Dewi Ana | Gadjah Mada University |
| A-04 | Development Process Of NaOH Absorbent Regeneration In Acid Gas Removal Using Continuous Membrane Electrolysis System | Muhammad Fattah Romdhoni, Zalza Lola Rinanda, One Riesty Katalisan, Agra Yuba, Fadlilatul Taufany | Sepuluh Nopember Institute of Technology |
| A-05 | Pretreatment of Starch-Free Sugar Palm Trunk (<i>Arenga pinnata</i>) to Enhance Saccharification in Bioethanol Production | Kusmiyati, Duwi Maryanto, Ringga Sonifa, Sabda Aji Kurniawan , Hadiyanto | Muhammadiyah University, Diponegoro University |
| A-06 | Biodiesel Production from Palm Oil Using Potassium Hydroxide Loaded On Zeolite Y Catalyst | Mattana Santasnachok, Lalita Mankarn, Wanwisa Kongsee and Hendra Winastu | Burapha University, Thailand |
| A-08 | Microencapsulation Of Propolis Extract By Spray Drying Using Carrageenan As The Binding Material | Denni kartika sari , Retno sulistyio Dhamar Lestari , Muhammad Sahlan, Diah Kartika Pratami | Sultan Ageng Tirtayasa University, University Of Indonesia |
| A-10 | Antioxidant Fine Particle Precipitation from Curcuma mangga Rhizomes Ethanolic Extract Using Supercritical Antisolvent Process | Sarah D. Lestari, Siti Machmudah, Sugeng Winardi, Wahyudiono, Hideki Kanda, Motonobu Goto | Sepuluh Nopember Institute of Technology, Nagoya University, JAPAN |
| A-11 | Effect of fermentation time and starter culture addition on decreasing cyanide acid level of wild cassava (<i>manihot glaziovii</i>) | Setiyo Gunawan, Tri Widjaja, Tika Surya Ningsih, Sekar Bias Tri Cahyani, Mohamed Abdallatif Hawashi | Sepuluh Nopember Institute of Technology |
| A-15 | The Effect of Alcohol on Bead Forming of Encapsulated Iron Using Deacetyled Glucomannan | Heri Cahyono, Dyah Hesti Wardhani, | Diponegoro University |
| A-16 | Performance Comparison of Commercial Enzymes for The Synthesis of Glucosamine by Chitosan Hydrolysis in The Presence of Surfactant | Nur Rokhati, Heru Susanto, Titik Istirokhatun Purwono, Bambang Pramudono | Diponegoro University |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|---|--|
| A-18 | Polyvinyl Alcohol (PVA) Partially Hydrolyzed Addition in Synthesis of Natural Hydrogel Carboxymethyl Cellulose (CMC) Based from Water Hyacinth | Asep Handaya Saputra, Nadia Huda Apriliana | University Of Indonesia |
| A-19 | Effect of Biodiesel Concentration on Corrosion of Carbon Steel by <i>Serratia marcescens</i> | Yustina M Pusparizkita, Tjandra Setiadi, Ardiyan Harimawan | Bandung Institute of Technology |
| A-20 | Effect Temperature And Time Of Deacetylation On Physicochemical Properties Of Glucomannan | Dyah Hesti Wardhani, Fatoni Nugroho | Diponegoro University |
| A-21 | Enzymatic Hydrolysis Of Bitter Cassava And Gadung Starches With Different Compositions At Low Temperature | Hargono , Andri Cahyo Kumoro, Bakti Jos | Diponegoro University |
| A-23 | Bioconversion Studies of Methyl Laurate to Dodecanedioic Acid using a Wild-type of <i>Candida tropicalis</i> | Rifkah Akmalina, Ronny Purwadi, Johnner Sitompul | Bandung Institute of Technology |
| A-26 | Construction of Drug:H ⁺ antiporter 1 (DHA1) of <i>Penicillium marneffei</i> inside <i>Saccharomyces cerevisiae</i> ADA by homologous recombination | Setyowati Triastuti Utami, Shun Iwatani, Susumu Kajiwara | Tokyo Institute of Technology, JAPAN |
| A-27 | Tailoring Properties of Acidic Types of Natural Deep Eutectics Solvents (NADES): Enhanced Solubility of Curcuminoids from <i>Curcuma zeodaria</i> | Orchidea Rachmaniah, M. Rachimoellah | Sepuluh Nopember Institute of Technology |
| A-29 | The Effect of Growth Medium Composition on <i>X.campestris</i> Metabolism in Producing Xanthan Gum | Nancy Siti Djenar, Edi Wahyu Sri Mulyono | Bandung State Polytechnic |
| A-31 | Betaine and Alcohol-Based Natural Deep Eutectic Solvent (NADES) for Vitexin Extraction from Leaves of <i>Binahong</i> (<i>Anredera cordifolia</i>) | Kamarza Mulia , Elsa Krisanti, Gerald Andika P | University Of Indonesia |
| A-32 | Formulation and characterization of nanoemulgel mangosteen extract in virgin coconut oil for topical formulation | Kamarza Mulia, Rosalia M.A. Ramadhan, and Elsa A. Krisanti | University Of Indonesia |
| A-33 | Carotenoid Extraction from Papaya Fruit (<i>Carica papaya</i> L.) and Their Application as Instant Rice Natural Colouring Agent by Microencapsulation | Umar Hidayat, Retno Murwani, Andri Cahyo Kumoro | Diponegoro University |
| A-35 | Engine Performance and Smoke Emission Tests of Transesterified <i>Swietenia macrophylla</i> King (Philippine Broad-Leaved Mahogany) Seed Oil | Jeremy James E. Ogilvie, Claudette Miracel R. Oñate, Gemarie Hazel F. Quetua, Maria NataliaR. Dimaano | University of Santo Tomas, Philippines |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|---|--|
| A-36 | Enhancing the Reducing Sugar Production from Coconut Husk Using Combination of Subcritical water (Assisted by Nitrogen) and Enzymatic Hydrolysis | Maktum Muharja, Aulia Karima, Enrico Gautama, Tantular Nurtono, and Arief Widjaja | Sepuluh Nopember Institute of Technology |
| A-39 | Influence of Soy Protein Isolate on Gelatin-based Edible Film Properties | Iryanti Fatyasari Nata, Chairul Irawan, Lazuardi Ramadhan, Muhammad Rizky Ramadhani | Lambung Mangkurat University |
| A-40 | Enzymatic Hydrolysis of Liquid Hot Water Pre-treated Macro-alga (<i>Ulva lactuca</i>) for Fermentable Sugar Production | Tri Poespowati, Ardy Riyanto, Hazlan, Ali Mahmudi, Rini Kartika Dewi | National Institute of Technology |
| A-41 | Optimization of Glucose Production of Cocopeat Using Whole Cell <i>Trichoderma reesei</i> | Muhammad Zaki Suhendrayatna, Misbul Hadi, Syukri Adha | Syiah Kuala University |
| A-42 | Bioelectricity Production From Microalgae - Microbial Fuel Cell Technology (Mmfc) | Carlito da Costa, Hadiyanto | Diponegoro University |
| A-43 | Chemical modifications for intensity variation and spectrum extension of brazilain extract from sappanwood (<i>Caesalpinia Sappan L.</i>) | Edia Rahayuningsih, Wiratni Budhijanto, Hana Fitria Prasasti, Meyta Tias Wahyuningrum | Gadjah Mada University |
| A-44 | Modification of Cassava Starch Using Lactic Acid Hydrolysis in The Rotary-UV Dryer to Improve Physicochemical Properties | Siswo Sumardiono, Bakti Jos, Denny Firmansyah, Rahmi Hidayatunajah, Isti Pudjihastuti | Diponegoro University |
| A-45 | Physicochemical and Rheological Characterization of Sago Starch Modified with Lactic Acid Hydrolysis and UV Rotary Drying | Siswo Sumardiono, Rizki B Rakhmawati, Isti Pudjihastuti | Diponegoro University |
| A-46 | Preliminary study for acetylation of tapioca bagasse starch and microfibrillated cellulose of bamboo | Silviana Silviana, Siti Susanti, and Agus Subagio | Diponegoro University |
| | | | |
| B-01 | Liquid-liquid Equilibria for Quaternary System of Eugenol (1) + β -Caryophyllene (2) + 1-Propanol (3) + Water (4) at Temperatures 303.15, 313.15, and 323.15 K | Irwan Hidayatulloh, Nurcahyo Nugroho, Gede Wibawa, Kuswandi | Sepuluh Nopember Institute of Technology |
| B-02 | Use of deep eutectic solvent as extractant for separation of Fe (III) and Mn (II) from aqueous solution | Pius Dore Ola, Michiaki Matsumoto | Doshisha University, JAPAN |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|-------------|--|---|--|
| B-03 | Anionic Dye Adsorption From Aqueous Solutions By Chitosan Coated Luffa Fibers | Cherdphong Seedao, Tanawat Rachphirom, Metninee Phiromchoei, Witayat Jangiam | Burapha University, Thailand |
| B-04 | Microwave-assisted glycerolysis of neem oil | Isabela Celina del Mundo, John Michael Cavarlez, Anna Monica Pe, Susan Roces | De La Salle University Manila, Philippines |
| B-05 | Effect of Promoter Concentration on CO ₂ Separation Using K ₂ CO ₃ With Reactive Absorption Method in Reactor Packed Column | Junety Monde, Tri Widjaja, Ali Altway | Sepuluh Nopember Institute of Technology |
| B-06 | Process Design of Virgin Coconut Oil (VCO) Production Using Low-Pressure Oil Extraction | Patricia Janelle Ferrer, Vanessa Ferl Quilinguen, Jeremiah Rosario, Lola Domnina Pestaño | University of Santo Tomas, Philippines |
| B-07 | Mathematical Modeling of the Drying Kinetics of Thinly-Sliced Saba (Musa Balbasiana) Using Hot-Air Dryer | Lola Domnina B. Pestaño, John Paul T. Bautista, Reizl JR. H. Leguiab, Sean Danielle D. Puri | University of Santo Tomas, Philippines |
| B-10 | Extraction of γ -Oryzanol from Rice Bran Oil-Based Biodiesel Using Deep Eutectic Solvent | Regia Puspitasari, Dian Aprilia Ratnasari, Sunaring Chadijah L, Siti Zullaikah | Sepuluh Nopember Institute of Technology |
| B-11 | Development of a Method through Digital Image Analysis for Analyzing Polyaniline Based Sensors for Total Volatile Basic nitrogen (TVBN) as Fish Freshness Indicators | Manna Joanna Maravillas, Althea Mae Mendenilla, Adrian Fernando Merino, Edna Quinto | University of Santo Tomas, Philippines |
| B-12 | Isothermal Vapor-Liquid Equilibrium Measurement for Binary Systems of 2-Butanol + Diethyl Carbonate and Tert-Butanol + Diethyl Carbonate at Temperature of 303.15-323.15 K | Annas Wiguno, Rizky Tetrisyanda, Asalil Mustain, Kuswandi and Gede Wibawa | Sepuluh Nopember Institute of Technology |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|-------------|--|--|---|
| B-13 | Optimization of Supercritical Carbon Dioxide and Co-solvent Ethanol Extraction of Wasted Peanut Skin Using Response Surface Methodology | Nicky Rahmana Putra, Ahmad Hazim Abdul Aziz, Lee Nian Yian, Wan Diyana Ramli, and Mohd Azizi Che Yunus | Universiti Teknologi Malaysia |
| B-14 | Experimental Study on Pressure Drop and Flow Dispersion in Packed Bed of Natural Zeolite | Petric Marc Ruya, Herri Susanto, Mubiar Purwasasmita | Bandung Institute of Technology |
| B-15 | Calcium soap from palm fatty acid distillate (PFAD) for ruminant feed: quality of calcium source | Lienda A. Handojo, Antonius Indarto, Dian Shofinita, Anggina Meitha, Rakhmawati Nabila, Harry Triharyogi | Bandung Institute of Technology |
| B-16 | Syngas Compositions And Kinetics Of South Kalimantan Lignite Coal Char Gasification With Steam | Yusuf Rumbino, Suryo Purwono, Muslikhin Hidayat, Hary Sulistyono | Nusa Cendana University, Gadjah Mada University |
| B-18 | Application of Computational Fluid Dynamics for Modeling of Hydrodynamics and Mass Transfer of Laboratory Scale Crude Palm Oil Degumming Process | Yuswan Muharam, Aditya Kurniawan | University Of Indonesia |
| B-19 | Removing Ethylene by Adsorption using Cobalt Oxide-Loaded Nanoporous Carbon for Fruit Preservation | Imam Prasetyo, Nur Indah Fajar Mukti ³ , Muhammad Fahrurrozi, and Teguh Ariyanto | Gadjah Mada University |
| B-20 | Effect of Carrier Agent Formulation in Drying Rate and Antioxidant Activity Roselle Extract | Febiani Dwi Utari, Mohammad Djaeni, Wahyu Zuli Pratiwi, Muhammad Alver Syahputra, Uma Fadzilia Arifin | Diponegoro University |
| B-21 | Solubility and induction time for the crystallization of L-histidine | Neeranuch Punmalee, Sinjai Amklang, Hathaipat Sutamjam, Lek Wantha | Burapha University, |
| B-22 | Fixed Bed Adsorption of Natural Organic Matter Using Ozonated Carbon Active | Adi Kurniawan, Dian Listiyani, Jono Suhartono, Suparman Juhanda ¹ | National Institute of Technology |
| B-23 | Reuse of Newspaper As An Adsorbent For Cu (II) Removal By Citric Acid Modification | Mardiah, Rif'an Fathoni, Pratiwin Pudyaningtyas, Hamdania Gamu, Rinaldy | Mulawarman University |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|---|--|
| B-24 | Mathematical modeling of supercritical CO ₂ extraction of valuable compounds from <i>Eucheuma Cottonii</i> and <i>Gracilaria Sp</i> | Dwila Nur Rizkiyah, Nazla, Farah Nadhifah, Siti Machmudah, Sugeng Winardi | Sepuluh Nopember Institute of Technology |
| B-25 | Carrageenan Extracted From <i>Eucheuma Cottonii</i> Through Variant Of Drying Time | Novy Pralisa Putri, Ari Susandy Sanjaya, Neli Kartika Sari, Reni Puspita Sari, Yazid Bindar | Mulawarman University |
| C-01 | The Synthesis of Magnesium Soaps as Feed for Biohydrocarbon Production | Meiti Pratiwi Godlief F. Neonufa, Tirta Prakoso, Tatang H. Soerawidjaja | Bandung Institute of Technology |
| | | | |
| C-02 | The Effect of Co-solvent in Esterification of Oleic Acid Using Amberlyst 15 as Solid Acid Catalyst on Biodiesel Production | Iwan Ridwan , Mukhtar Ghazali, Adi Kusmayadi, Resza Diwansyah Putra, Nina Marlina, Eko Andrijanto | Bandung State Polytechnic |
| C-03 | Process Stability Identification Through Dynamic Study of Single-bed Ammonia Reactor with Feed-Effluent Heat Exchanger (FEHE) | Tri Partono Adhi, Muhammad Iqbal Prasetyo | Bandung Institute of Technology |
| C-04 | Palm H-FAME Production through Partially Hydrogenation using Nickel/Carbon Catalyst to Increase Oxidation Stability | Elsa Ramayeni, Bambang Heru Susanto, Dimas Firlyansyah Pratama | University of Indonesia |
| C-05 | Carbon Capture and Storage System Using Pinch Design Method | Renanto Handogo | Sepuluh Nopember Institute of Technology |
| C-06 | Ternary Liquid-Liquid Equilibrium For System β -Caryophyllene + Alcohol (ethanol, tert-butanol, 1-octanol) + Water System at 303.15 K and Atmospheric Pressure | Retno Kumala Hesti Sucipto, Rizky Tetrisyanda, Kuswandi Kuswandi, Gede Wibawa | Sepuluh Nopember Institute of Technology |
| C-07 | Study of Acid Hydrolysis on Organic Waste : Understanding The Effect of Delignification and Particle Size | Nadiem Answar, Imam Mukhaimin, Mining Harsanti, Ate Romli | University of Jendral Achmad Yani |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|---|--|
| C-08 | Mass and energy yield of palm kernel shell torrefied in the presence of combustion gas | Varsheta Sellappah, Yoshimitsu Uemura, Thanh Hoai Trinh, Suhaimi Hassan, Ken-ichiro Tanoue | Universiti Teknologi PETRONAS, Yamaguchi University, JAPAN |
| C-09 | Solvent-free microwave extraction of essential oil from Melaleuca leucadendra | Aviarina Widya Ismanto, Heri Septya Kusuma, Mahfud | Sepuluh Nopember Institute of Technology |
| C-10 | Simulation of the Oxidation and Combustion of Mixed Diesel-Biodiesel Fuel | Yuswan Muharam, Danny Leonard | University of Indonesia |
| C-11 | Biodiesel Production from Spirulina sp. by One-Step Extraction- Transesterification | Yano Surya Pradana, Fariz Azwar Azmi, Farida Arisa, Muhamad Hartono | Gadjah Mada University |
| C-13 | Caustic effects for Bitumen Separation from Buton Oil Sand by Using Modified Hot Water Process | Yosita Dyah Anindita, Susianto, Ali Atyway, Zakiyah irfin, Gissa Navira Sevie | EDP Sciences |
| C-14 | Ball-milling effect on Indonesian natural bentonite for manganese removal from acid mine drainage | Widyawanto Prastistho, Winarto Kurniawan, Hirofumi | Tokyo Institute of Technology |
| C-15 | The Performance Of Microorganism On Coffee Pulp Pretreatment As Raw Material For Biogas Production | Sri Rachmania Juliastuti, Tri Widjaja, Vivi Alvionita Sari, Desy Arista, Toto Iswanto | Sepuluh Nopember Institute of Technology |
| C-16 | Study On Color Removal Of Sewage Treatment Plant (STP) Effluent Using Granular Activated Carbon | Anita Nurfida, I Nyoman Widiasa | Diponegoro University |
| C-17 | Advanced Oxidation Processes (AOPs) for Refinery Wastewater Treatment Containing High Phenol Concentration | Alif Nur Azizah, I Nyoman Widiasa | Diponegoro University |
| C-18 | A decision modelling approach for selection of biological nutrient removal systems for wastewater | Carla Mae Pausta, Arnel Beltran, Aileen Huelgas-Orbecido, Michael Angelo Promentilla, Ramon Christian Eusebio | De La Salle University , University of the Philippines Los Baños |

PAPER CODES

| CODE | TITLE | AUTHOR | AFFILIATION |
|------|--|--|---|
| C-19 | Biogas Productivity as Renewable Energy and Performance of Waste Water Treatment in Tofu Small Scale Industry using an AnSBR Reactor | Suparni Setyowati Rahayu, Totok Prasetyo, Purwanto, Budiyo | Diponegoro University |
| C-20 | Adsorption of Nickel and Chromium Ions by Amine-Functionalized Silica Aerogel | Sudarat Sertsing, Thanaphat Chukeaw, Sittiphong Pengpanich, Bawornpong Pornchuti | Mahanakorn University of Technology, Thailand |
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