

Poster Presentation

Session1 : Catalysis

CAP-1: A Study of Bimetallic PdCu Catalysts for Partial Hydrogenation of Fatty Acid Methyl Esters (FAMES)

Chalita Pupairatchapong, Apanee Luengnaruemitchai, Nuwong Chollacoop

CAP-2: Multi-functionalized Mesoporous SBA-15 for Conversion of Glucose to 5-Hydroxymethylfurfural (HMF) in Aqueous System

Chanakan Trai-angkun, Apanee Luengnaruemitchai, Kajornsak Faungnawakij

CAP-3: A Study of Synthesis Conditions of TiO₂ Catalysts and Their Activity for Oxidative Steam Reforming of Methanol

Jareerat Chutirat, Apanee Betrig Luengnaruemitchai

CAP-4: Investigation of Fischer-Tropsch Synthesis Mechanism over Cobalt Catalyst by Kinetic Monte Carlo Simulation

Nuttawut Puginqna, Boonyarach Kitiyanan, Robert M. Ziff

CAP-5: Effect of 20 % Ethanol in Glycerol Feed for Catalytic Production of 1,2-Propanediol using 1 % Pd-Cu_{0.3}Mg_{1.7}AlO Layered Double Oxide Catalyst without External H₂

Thanakorn Kumpradit, Sirirat Jitkarnka

CAP-6: Performance of Ethanol Dehydrogenation to Valuable Chemicals over Zr Partially-Substituted Layered Double Oxide Catalyst

Tuangrat Leungcharoenwattana, Sirirat Jitkarnka

CAP-7: Steam Reforming of LPG over Ce-doped Ni/Al₂O₃ Commercial Catalyst: Effect of Mercaptan on Ce-doped Ni/Al₂O₃

Kananon Vanboonyakit, Pongtorn Charoensuppanimit

CAP-8: Direct Synthesis of Light Olefins from CO₂ and H₂ over In₂O₃-Ga₂O₃ Admixed with SAPO-34.

Naphattanun Akkharaphatthawon, Thongthai Witoon

CAP-9: Hydrotreating of Oleic Acid over Heterogeneous Noble Catalyst.

Nutchada Kururatchaikun, Rungthiwa Methaapanon, Apinan Soottitantawat and Nuttapon Sodsai

CAP-10: Hydrogenolysis of Glycerol over Bimetallic on Alumina Catalyst

Parichart Konglek, Rungthiwa Methaapanon, Apinan Soottitantawat and Parephan Srisaarn

CAP-11: Silica-supported TiO₂-ZrO₂ for Light-enhanced Adsorptive Desulfurization of Dibenzothiophene

Sukanya Thepwatee, Pawnprapa Pitakjakpipop, Watsamon Sukarasukon, Punnarai Leesakul

CAP-12: Graphitic Carbon Nitride/ α -Manganese Oxide Nanowires as High-Performance Bifunctional Catalyst for Zn-Air Battery

Taksapohn Srimanoroth, Soorathep Kheawhom

CAP-13: Catalytic Conversion of Glucose into Glycerol using Catalysts.

Varissara Keerathutthayakorn, Prasert Reubroycharoen, Tawatchai Charinpanitkul

CAP-14: DFT Calculation of Aldol Condensation between Furfural and 2-Butanone over MgO

Wilasinee Heebnak, Vudhichai Parasuk, Manaswee Suttipong

CAP-15: Effect of Acid Treatment on Carbon Content of Hydrochar from Hydrothermal Carbonization of Lignocellulosic Biomass

Sunalin Sattasathuchana, Boonyarach Kitiyanan, Pramoch Rangsunvigit, Pongtanawat Khemthong, Saran Youngjan, and Kajornsak Faungnawakij

Session 2 : Renewable Energy

REP-1: Production of Bio-jet Fuel from Palm Fatty Acid Distillate (PFAD) Over HZSM-12 Catalyst: Effect of Supported Metal (Ni and Co)

Ariya Eka Alel, Siriporn Jongpatiwut

REP-2: Effects of SDS, MES, L-leucine, and L-valine on Methane Hydrate Formation and Dissociation

Kimhak Neak, Santi Kulprathipanja, Pramoch Rangsunvigit

REP-3: Effect of Surface Pretreatments on the Catalyst Coating and Catalytic Performance of Pd/TiO₂ in Microscale-based Reactor for the Production of Bio-hydrogenated Diesel

Kongpat Jirapisaisuk, Siriporn Jongpatiwut, Yuttanant Boonyongmaneerat

REP-4: The Effect of FeCl₃ Addition on the Process Performance of a Two-Stage UASB System

Monchupa Lertpattanapong, Sumaeth Chavadej

REP-5: Ionic Liquid Pretreatment of Vetiver Grass for Fermentable Sugar Production

Pattarawan Ampunsang and Apanee Luengnaruemitchai

REP-6: Electrochemical performance of double-perovskite Sr₂FeTi_{1-x}(Nb, V)_xO_{6-δ} materials for IT – SOFC

Ausa Potong, Soamwadee Chaianansutcharit

REP-7: Recovery of MnO₂ from Spent Alkaline Battery by Precipitation and Hydrothermal Techniques

Kamonpan Manowilaikun, Julamane Wachiradecha, Suttida Chaumket, Rojana Pornprasertsuk

REP-8: Iron Fiber as Anode Current Collector for Secondary Zinc-Nickel Battery

Kridsada Jirasattayaporn, Soorathep Kheawhom

REP-9: Pyrolysis of Waste Palm Oil from Empty Fruit Bunch using Coal Fly Ash Catalyst

Kuntima Niyakit, Tharapong Vitidsant

REP-10: Superstructure Development of Processing Pathway for The Empty Fruit Bunch of Palm

Nusara Plodprong, Sirikanya Singcuna, Pongtorn Charoensuppanimit

REP-11: Preparation of MnO_x/N-Doped Carbon Nanofibers

Saowaluk Soonthornkit, Rojana Pornprasertsuk

REP-12: Synthesis of P-doped graphitic carbon nitride and reduced graphene oxide composite for oxygen reduction reaction

Songthai Phuannguluum, Soorathep Kheawhom, Chutimon Satirapipathkul

REP-13 Continuous Production of Biodiesel from Palm Oil using a Dolomite Extrudate Catalyst in Fixed Bed Reactors

Tanakit Jamjumrus, Prapan Kuchonthara, Prasert Reubroycharoen, Chawalit Ngamcharussrivichai, Tharapong Vitidsant

REP-14 Conversion of Palm Olein to Biojet Fuel over Nickel Supported on Beta and Hy Zeolites

Thanawat Sukanan, Prasert Reubroycharoen

REP-15 Triacetin Production by Acetylation of Glycerol with Acetic Acid over Aluminium Oxide

Thanida Charoenetisart, Rungthiwa Methaapanon, Apinan Soottitantawat

REP-16 Effects of Cellulose and Lignin on Bio-crude Production by Hydrothermal Liquefaction of Biomass

Usanisa Chantarawongpaisan, Prapan Kuchonthara

Session 3 : Surfactant, Separation and Environment

SEP-1: Carboxylate Extended Based Microemulsions for Enhanced Oil Recovery Application Through the HLD Concept: Effect of Polyethylene Oxide (EO) and Polypropylene Oxide (PO) Groups

Bagas Yoga Pradhana, Ampira Charoensaeng, Uthaiporn Suriyaphadilok, Ben Shiau

SEP-2: Methane and Carbon Dioxide on Aluminium Based MOFs and Zirconium Based MOFs

Orawee Lamoonkit, Santi Kulpratipunja, Chalita Ratanatawanate, Pramoch Rangsunvigit

SEP-3: Green-house Gas Storage through Enhanced Hydrate Formation – Effects of Promoters on Gas Uptake and Induction Time

Thiphakorn Absuwan, Santi Kulprathipanja, and Pramoch Rangsunvigit

SEP-4: Purification of Lactic Acid by using a Cost-Effective Adsorbent: Studying of Adsorption Isotherm for Scale-up Production

Chonlada Naksan-nguan, Sujitra Wongkasemjit, Thanyalak Chaisuwan

SEP-5: Removal of Mixed VOCs of Benzene, Toluene, and Xylene by Using Catalytic Corona Discharge System.

Issaree Tantiprapa, Sumaeth Chavadej

SEP-6: Combined Life Cycle Analysis and Material Flow Analysis as a Tool for End of Life Options of Used Lubricating Oils

Komsan Toeipomthong, Ampira Chareonsaeng, Uthaiporn Suriyaphadilok, Sutha Khaodhiar

SEP-7: Evaluation of Environmental Impacts for End of Life Treatment of Non-metallic Part from Waste Printed Circuit Boards (PCBs) through Enhanced using Life Cycle Assessment (LCA)

Warisara Runqsitikul, Sutha Khaodhiar, Ampira Charoensaeng, Manit Nithitanakul

SEP-8: Combined Material Flow analysis and Life Cycle Analysis for End of Life of Petroleum Waste Management

Putthita Chongchongprasert, Sutha Khaodhiar, Ampira Charoensaeng

SEP-9: Novel Microemulsion Formation by the Hydrophilic-Lipophilic Deviation Concept using Carboxylate based Extended surfactants for EOR Application.

Suchawadee Kumkhuntod, Uthaiporn Suriyaphadilok, Ben Shiau, Ampira Charoensaeng

SEP-10: CO₂ and CH₄ Adsorption/Seperation on Synthesized Zeolite from Natural Diatomite

Sanfun Limprapaipong, Pitak Laoratanakul, Uthaiporn Suriyaphadilok

SEP-12: Extraction of Moringa Oleifera Seed Waste from Cold-pressed Process by Supercritical CO₂

Pichaya Munkong, Ruengwit Sawangkeaw, Winatta Sakdasri, Somkiat Ngamprasertsith

Session 4 : Process and System Engineering

PSP-1: Enumeration Method for Optimal Design of Fired Heaters

Issara Intararit, Uthaiyorn Suriyaprapahadilok, Andre L. H. Costa, Miguel Bagajewicz

PSP-2: Stochastic Optimization for Petrochemical Supply Chain

Kan Rungphanich, Kitipat Siemanond

PSP-3: Heat Exchanger Network Design/Retrofit

Siwat Valeekiattkul, Kitipat Siemanond

PSP-4: Dynamics Model and Control System of Carbon Dioxide Capture in Fluidized Bed Using Computational Fluid Dynamics

Chonnikan Tirapanichayakul, Benjapon Chalermssinsuwan, Pornpote Piumsomboon

PSP-5: Carbon Dioxide Capture on K₂CO₃/Al₂O₃ sSorbent Prepared in Base Condition

Jaruwan Charoenchaipet, Pornpote Piumsomboon, Benjapon Chalermssinsuwan

PSP-6: Process Design and Evaluation of Molten Carbonate Fuel Cell Incorporated with Chemical Looping Air Separation System

Kanokporn Kobkuwittaya, Prapan Kuchonthara

PSP-7: Effects of Time Mixing on Physical and Mechanical Properties of Brake Pads

Kasidet Rupiyawet, Kritsana Kaewlob, Pornapa Sujaridworakun, Wantanee Buggakupta

PSP-8: Computational Fluid Dynamics Simulation of Stage Fluidized Bed Riser: Effect of Stage Configuration on System Hydrodynamics

Krittin Korkerd, Chaiwat Soanuch, Pornpote Piumsomboon, Benjapon Chalermssinsuwan

PSP-9: Grinding Process Development for the Improvement of Brake Pad Surface Flatness

Savita Chaysakul, Thiti Bovornratanaraks, Tonphong Kaewkongka

PSP-10 Computational Fluid Dynamics Model of Circulating Fluidized Bed Reactor for Carbon Dioxide Capture from Different Sources

Tanaporn Benjaprakairat, Benjapon Chalermssinsuwan, Pornpote Piumsomboon

PSP-11 Dynamic Simulation and Control System for Chemical Looping Combustion

Thanapat Wanotayaroj, Benjapon Chalermssinsuwan, Pornpote Piumsombon

PSP-12 The Effect of Hot Molding Parameters on Porosity of Brake Friction Materials

Thanaporn Wilairat, Nattawut Saechin, Wantanee Buggakupta, Pornapa Sujaridworakun

PSP-13 Effect of Cold-Pressing Process for the Production of Brake Pad with Uniform Density

Jitrathep Sukultanasorn, Thiti Bovornratanaraks, Nattawut Saechin

Session 5 : Biomedical and Green Polymers

BGP-1: Cytotoxicity against Cancer Cells of Chitosan Oligosaccharides Prepared by Electrical Discharge Plasma

Chattaporn Prommool, Ratana Rujiravanit, Sewan Theeramunkong, Nagahiro Saito

BGP-2: Deposition of Silver Nanoparticles on Cellulose, Nanosilica and Zeolite by Electrical Discharge Plasma

Teeranun Srihirunthanon, Ratana Rujiravanit, Nagahiro Saito, Takeshi Hagio

BGP-3: Development of Bacterial Cellulose Composites Reinforced with Nanocarbon-Coated Cotton Fabric

Sutaphat Hongkerd, Ratana Rujiravanit

BGP-4: Effect of Emulsion Aqueous Phase Content and Amount of Hydroxyapatite (Hap) on Morphology of Poly(Tt/Dpeha)Hipes

Nunthawan Kwangsawart, Jitima Preechawong, Manit Nithitanakul

BGP-5: Drug Release Behavior of Dexamethasone from Chemical Binding of Chitosan on Magnetic/PLGA Nanoparticles for Biomedical Application

Pakkamon Jarruwale, Kittima Bootdee, Manit Nithitanakul

BGP-6: Encapsulation of Curcumin with PLGA Nanoparticle loaded in Poly(vinyl alcohol) Electrospun for Wound Dressing application

Potchane Reanwilas, Kittima bootdee, Manit Nithitanakul

BGP-7: Development of Magnetically Actuated Thermoresponsive in Hybrid Nanocomposite of Bacteria Cellulose Hydrogel

Vaneua Vivattananakul and Hathaikarn Manuspiya

BGP-8 Antibacterial Hydroxyapatite Granules through Mangosteen Extract Impregnation

Sonthaya Chaiarwut, Jitti Niyompanich, Pongpol Ekabutr, Prasit Pavasant, Pitt Supaphol

BGP-9 New Approach for Green Synthesis of Gold Nanoparticles using latex from stem of *Cryptolepis buchanani* (Thao En On)

Kittiphong Thongsuk, Urarika Luesakul, Sakchai Laksee, Nongnuj Muangsin

BGP-10 Facile Preparation of Whey Protein-Modified Magnetic Nanoparticles as Adsorbents for Methylene Blue

Kwande Chamchoy, Thitirat Inprasit, Chutima Vanichvattanadecha, Penwisa Pisitsak

Session 6 : Polymer Engineering and Processing

PPP-1: Controlled Release of Nitrogen Element Incorporate into Biodegradable Polymer Blends

Luksamon Pratumma, Sutep Charoenpongpool, Manit Nithitanakul

PPP-2: Reinforcement of Hydrogel Structure by Calcium Carbonate particles for Enhanced Oil Recovery Application

Tuch Subanchong, Uthaiorn Suriyaphadilok, Ampira Charoensaeng, Benjamin Shiau

PPP-3: Bio based Thermoplastic Vulcanizate Foam: Natural rubber and Polybutylene Succinate Blend

Jedtarin Charoenta, Chanchai Thongpin

PPP-4: Effect of Screw Speed on Morphology and Properties of In-Situ Fibrillation PLA/PE Blend

Kantapong Samleekaew, Chanchai Thongpin

PPP-5 Influence of Rotor Speed on Polycaprolactone (PCL)/Natural Rubber (NR) Blend Using Phenolic Curing System

Nylar Chantanapho, Chanchai Thongpin

PPP-6 Carbon Nanotube/Polymer Composite Membrane for CO₂ Capture via a Membrane Gas Absorption Process

Suphitchaya Srisodsai and Chalida Klaysom

Session 7 : Smart and Advanced Materials

SMP-1: Development of pH-Sensor in Smart Packaging Derived by Hybrid Nanocomposite of Bacterial Cellulose Nanocrystals based Surface-Doped Chromophore

Chaninya Makiad, Visuta Engkagul, Christoph Weder, Hathaikarn Manuspiya

SMP-2: Preparation of Nanoporous Carbon Electrodes for Applications in Supercapacitors

Chanlika Yoksiri, Sujitra Wongkasemjit, Thanyalak Chaisuwan

SMP-3: Silver Nano Polymer Composite Membrane for Optical Sensing of Sulfide Ion Through In situ and Ex situ Technique

Muhammad Baqur Arif Stephan Thierry Dubas

SMP-4: Development on “Hom Thong” Banana’s Packaging for Export by Sea Transportation

Nithinai Rangsiwutisak, Hathaikarn Manuspiya

SMP-5: Development of ZnO Nanoparticles-deposited High Efficiency Air Filters by Applying Plasma Technology

Pawida Piyachat, Ratana Rujiravanit, Nagahiro Saito

SMP-6: Preparation of Anti-BPA Aptamer-conjugated Gold Nanoparticles by Using Solution Plasma for Use as Sensing Materials

Phumin Moonsan, Pongpol Ekabutr, Anyarat Watthanaphanit, Pitt Supaphol

SMP-7: Surface Modification of UHMWPE Using Chemical Treatment for application in Metal Flocculation and antimicrobial resistance from Waste Water

Varote Vatesoonthornthep, Pongpol Ekabutr, Pitt Supaphol

SMP-8: Copper Hybrid Metal-Organic Decomposition Inks using Co-solvent for Conductive Pattern

Chaiwat Klaewwigkij, Soorathep Kheawhom

SMP-9: Preparation and Thermochromism of Polydiacetylene/Zinc(II)ion/Silica Nanocomposite

Chanachon Kaewlin, Rakchart Traiphol, Nisanart Traiphol

SMP-10: Preparation of Bismuth Ferrite as Photo-Supercapacitors Application

Husna Haromae, Prasit Pattananuwat

SMP-11: Effects of Recycling Dust Composition on Performance of Brake Pad

Kanokwan Chanadusakorn, Kritsana Kaewlob, Prasert Reubroycharoen

SMP-12: Effect of cotton fibers on carbon/carbon composite xerogels electrode for using in EDLCs

Kasawan Sirichan, Palang Bumroongsakulsawat, Suttichai Assabumrungrat, Kriangsak Kraiwattanawong

SMP-13: Color-transition Behaviors of Polydiacetylene-based Nanocomposite with Zinc Oxide Nanocrystals

Natthakan Prakobkaew, Rakchart Traiphol, Nisanart Traiphol

SMP-14: Enhancement of Photocatalytic Performance of Traditional TiO₂ by Silver Deposition through Chemical Reduction at Room Temperature

Tanaporn Narkbuakaew and Pornapa Sujaridworakun

SMP-15: Synthesis and Characterization of Cr-doped NaTaO₃ Photocatalysts

Tuangphorn Prasitthikun, Pornapa Sujaridworakun

SMP-16: Preparation of Polypyrrole Coated Zinc Anode Electrode for Inhibition Corrosion of Secondary Zinc Ion Battery

Weerapong Nuanwat, Prasit Pattananuwat

SMP-17: Synthesis of NaA Zeolite from Prachin Buri Kaolin Using Secondary Growth and Hydrothermal Technique

Neeranut Kuanchertchoo, Wutthinan Suksawaeng, Chayada Sunthornwuttinan, Worapot Chaoon, Warunee Fangtawanit

SM-P-18: DOX-conjugated Polymeric Micelles for pH-triggered Drug Release in Cancer Cells

Yuwaporn Pinyakit, Suda Kiatkamjornwong, Voravee P. Hoven

Session 8 : Conductive and Electroactive Polymers

CPP-1: Quaternized Graphene oxide(Q-GO)/ Quaternized Polybenzimidazole (Q-PBI) Composite Membrane for Glucose Fuel Cell

Pongthorn Kunanupatham, Sairung Changkhamchom and Anuvat Sirivat

CPP-2: Development of Electromagnetic interference (EMI) Shielding Fabrics

Sirapob Tavon, Kawee Srikulkit

CPP-3: Simultaneous Determination of Dopamine, Uric Acid, and Ascorbic Acid by Using Screen Printed Carbon Electrode Modified with Platinum Nanoparticles/Polydopamine/ Reduced Graphene Oxide (PtNPs/PDA/RGO) Nanocomposite

Pijika Mool-amkha, Kontad Ounnunkad, Surin Saipanya, Napaporn Youngvises, Adisorn Tuantranont, Chanpen Karuwan, Jaroon Jakmunee