POSTER PRESENTATIONS

ADVANCED MATERIALS TESTING AND CHARACTERIZATION

ADV-P-01 **X-Ray Diffraction Analysis of ZnO Particles Prepared by Microwave Plasma**
Parinya Chakartnarodom
Kasetsart University, Thailand

ADV-P-02 **Characterization of Improved White Sapphire with Lithium-Glass**
Natthaphol Chomsaeng
Burapha University (Chanthaburi Campus), Thailand

ADV-P-03 **Influence of Scanning Parameters on X-Ray Diffraction Peaks of Copper**
Parinya Chakartnarodom
Kasetsart University, Thailand

ADV-P-04 **Temperature Effect on Synthesis of Carbon Nanotubes by Catalytic Chemical Vapor Deposition**
Visittapong Yordsri
National Metal and Materials Technology Center, Thailand

ADV-P-05 **Application of Soft X-Ray Emission Spectrometer on Microstructure Investigation of High Temperature Stainless Steel**
Viyaporn Krongtong
National Metal and Materials Technology Center, Thailand

ADV-P-06 **Rapid Analysis of Residual Styrene Monomer and Oligomer in Polystyrene Using Fragmentless Ionization Mass Spectrometry**
Takahisa Tsugoshi
National Institute of Industrial Science and Technology (AIST) , Japan

BIOMEDICAL MATERIALS AND DEVICES

BIO-P-01 **Improving Mechanical Properties of Biphasic Calcium Phosphate Bone Cement by Chitosan Fiber Reinforcement**
Nuan La-Ong Srakaew
Rajamangala University of Technology Isan, Thailand

BIO-P-02 ***In vivo* of Sericin-Polyurethane Nanofiber Mats for Wound Healing in Rat**
Pornpen Siridamrong
Chulalongkorn University, Thailand

BIO-P-03 ***In Vitro* Evaluation of Zein as Matrix Forming Agent in Extended Released Tablets Containing Theophylline**
Noppadol Chongcherdsak
Silpakorn University, Thailand

BIO-P-04 **Preparation and Characterization of Hydroxyapatite Powder from Cockle Shells**
Tiwasawat Sirisoam
Chiang Mai University, Thailand

BIO-P-05 **Crystallization, Mechanical Properties and In vitro Bioactivity Assessment of (45S5-HA) Biocomposite**
Sunil Prasad
Indian Institute of Technology (B.H.U.), India

BIO-P-06 **Mechanical Property and Morphology of Porous Fluorcanasite Glass-Ceramics Doped with Bioglass**
Autcharaporn Srion
National Metal and Materials Technology Center, Thailand

BIO-P-07 **Double-walled PLA-PLGA Particles, a Particulate Delivery System for Cancer Vaccines**
Amaraporn Wongrakpanich
Mahidol University, Thailand

BIO-P-10 **Shear Bond Strength of Resin Cement between Mica Glass-Ceramic and Human Dentin**
Thapanee Srichumpong
Kasetsart University, Thailand

CERAMICS

CER-P-01 **Characterization and Properties of Cordierite – Mullite Refractories from Raw Materials and Narathiwat Clay (in Thailand)**
Nattawut Ariyajinno
Chiang Mai University, Thailand

CER-P-02 **The Studies on The Mechanical and Thermal Properties of Geopolymer Mortar**
Pongsak Jittabut
Nakhon Ratchasima Rajabhat University, Thailand

CER-P-03 **Slip Degassing to Improve the Properties of Slip Cast and Reaction Bonded Si_3N_4**
Kritkaew Somton
National Metal and Materials Technology Center, Thailand

CER-P-04 **Influence of Temperature and Alkaline Activation for Synthesis Zeolite A from Natural Kaolin**
Pimpreeya Thungngern
King Mongkut's Institute of Technology Ladkrabang, Thailand

CER-P-05 **Effect of M-Type Hexaferrite on Mechanical and Magnetic Properties of Hydroxyapatite Ceramics**
Rewadee Wongmaneerung
Maejo University, Thailand

CER-P-06 **Surface Modification of TiO_2 with the Sonochemical Method**
Eakkasit Thasirisap
King Mongkut's Institute of Technology Ladkrabang, Thailand

CER-P-07 **Structure, Magnetic Property and Energy Band Gap of Fe-doped NiO Nanoparticles Prepared by co-Precipitation Method**
Buppachat Toboonsung
Nakhon Ratchasima Rajabhat University, Thailand

CER-P-08 **Synthesis of Nanocrystalline Cobalt Ferrite by the Sonochemical Method in Highly Basic Aqueous Solution**
Patchara Pasupong
King Mongkut's Institute of Technology Ladkrabang, Thailand

CER-P-09 **Fabrication of Low Cost Membrane from Anodic Aluminum Oxide (AAO)**
Peerawith Sumtong
King Mongkut's Institute of Technology Ladkrabang, Thailand

CER-P-11 **Effects of Aluminum Concentrations on Microstructure and Compressive Strength of Porous Concrete**
Napamas Jaroonvechatam
Kasetsart University, Thailand

CER-P-12 **Chemical Composition-Microstructure-Dielectric Constant Relations of Mg-doped Calcium Titanate Synthesized by Solid State Reaction Technique**
Nicha Sato
Kasetsart University, Thailand

CER-P-13 **Effect of Solids Loadings, Sintering Temperatures and Sintering Periods on Microstructure of Hydroxyapatite**
Jednupong Palomas
Kasetsart University, Thailand

CER-P-15 **Effects of Calcination Temperatures and Material Contents on Chemical Compositions of The Cement Powders Synthesized by Solution Combustion Technique**
Suphitsara Yingyuen
Kasetsart University, Thailand

CER-P-16 **Heavy Metal Immobilization of Fly Ash-based Geopolymers**
Ronnachai Pliansakul
Chulalongkorn University, Thailand

CER-P-17 **Synthesis and Characterization of Cerium- and Lanthanum -containing Bioactive Glass**
Md Ershad
Indian Institute of Technology (B.H.U.), India

CER-P-18 **Influence of Graphene Oxide on the Enhanced Photocatalytic Activity of Cerium Dioxide-Graphene Oxide Composites**
Duangdao Channei
Naresuan University, Thailand

CER-P-19 **Effect of Calcium Carbonate on Compressive Strength and Physical Properties of Alkali-activated Lightweight Concrete**
Watcharapong Wongkeo
Nakhon Ratchasima Rajabhat University, Thailand

CER-P-20 **Synthesis and Photocatalytic Activity of Visible-Light Responsive BiOBr/GO Composites**
Tuangphorn Prasitthikun
Chulalongkorn University, Thailand

CER-P-21 **Effect of Polymethylmethacrylate Content on Microstructure and Properties of Barium Orthotitanate Porous Ceramic**
Pratthana Chithit
Maejo University, Thailand

CER-P-23 **Use of Waste Glass as a Reinforce Material in Calcined-kaolin Based Geopolymer**
Siriwan Chokkha
Suranaree University of Technology, Thailand

CER-P-24 **Investigation of Physical, Mechanical and Thermal Properties of Building Wall Materials**
Jiraphorn Mahawan
Naresuan University, Thailand

CER-P-25 **Synthesis and Characterization of Zn^{+2} Doped Cobalt Ferrite Nanoparticles and 45S5 Bio-glass Composite for Application in Hyperthermia Treatment**
Aman Bhardwaj
Indian Institute of Technology (B.H.U.), India

CER-P-26 **Influence of Portland Cement on Physical, Mechanical and Thermal Properties of Cellular Lightweight Concrete**
Surirat Ketchaona
Naresuan University, Thailand

CER-P-27 **Structure and Ferroelectric Properties of $KNbO_3$ added $Bi_{0.5}Na_{0.5}TiO_3$ Ceramics**
Nuttapon Pisitpipathsin
Rajamangala University of Technology Isan, Thailand

CER-P-28 **The Effect of Calciumorthophosphate on Photocatalytic Activity of Titanium Dioxide Photocataly Beads**
Pakpassagun Somwong
Chulalongkorn University, Thailand

CER-P-30 **Effects of Air Exposure Time and Annealing Temperature on Superhydrophobic Surface of Titanium Dioxide Films**
S.Tipawan Khlayboonme
King Mongkut's Institute of Technology Ladkrabang, Thailand

CER-P-32 **Synthesis of Carbon and Zeolite Na-A Composites Powder from Rice Husk Charcoal as Raw Material for Slip Casting Process**
Thanakorn Tepamat
Chulalongkorn University, Thailand

CER-P-33 **Using of Basalt Fiber as Reinforcing Materials in Fiber-Cement Flat Sheet**
Apirat Theerapapvisetpong
Chulalongkorn University, Thailand

CER-P-34 **Effect of Silica Base Catalyst on Transformation of Methanol to Hydrocarbon**
Supranee Lao-Ubol
Thailand Institute of Scientific and Technological Research, Thailand

DESIGN & MANUFACTURING AND COMPUTATIONAL SCIENCE & ENGINEERING

DMC-P-01 **Computer-Aided Optimization for Multi-Pass Cold Drawing of Cobalt-Chromium Alloy Seamless Micro Tube**
Dongearn Kim
Korea Institute of Industrial Technology (KITECH), South Korea

DMC-P-02 **The Structural and Electronic Properties of FePc, CoPc and CuPc Monomer Structure: First Principles Study**
Witoon Nuleg
King Mongkut's Institute of Technology Ladkrabang, Thailand

MATERIALS FOR ENERGY

ENR-P-01 **The Study of Carbon Nanotubes as Conductive Additive of $Ca_3Co_4O_9$ Anode for Lithium-ion Battery**
Natkrita Prasoetsopha
Rajamangala University of Technology Isan, Thailand

ENR-P-02 **Microwave-Assisted Preparation of Sodium Silicate Used Rice Husk Ash as Precursor and Applications for Biodiesel Catalyst**
Jaturon Kumchompoo
Maejo University, Thailand

ENR-P-03 **Pelletization of Iron Oxide Based Sorbents for Hydrogen Sulfide Removal**
Pathompong Janetaisong
National Metal and Materials Technology Center, Thailand

ENR-P-04 **Multifunctional Magnetic Nanoparticle for Microaglal Biodiesel Production**
Kyubock Lee
Chungnam National University, South Korea

ENR-P-05 **One-pot Synthesis of $LiFePO_4$ Nano-particles Entrapped in Mesoporous Melamine-Formaldehyde Matrix as the Promising Cathode Materials for the Next Generation Lithium Ion Batteries**
Kantawich Jittmonkong
Kasetsart University, Thailand

ENR-P-06 **Large Area Fabrication of Stress-induced Lift-off Silicon Foil using Epoxy**
Hyo Sik Chang
Chungnam National University, South Korea

ENR-P-07 **Influence of Bi_2O_3 on Crystalline Phase Content and Thermal Properties of Åkermanite and Diopside based Glass-ceramic Sealant for SOFCs**
Pornchanok Lawita
Chulalongkorn University, Thailand

ENR-P-08 **The Study of Crystallization of Polyfluorene and Fullerene Derivatives in Semiconducting Layer of Organic Solar Cells**
Wantana Koetniyom
King Mongkut's Institute of Technology Ladkrabang, Thailand

ENR-P-09 **Effect of Clays on Pyrolysis of Jatropha Cake**
Yatika Somrang
National Metal and Materials Technology Center, Thailand

ENR-P-10 **The Effect of Calcium-based Salt on Hydrothermal Carbonization of Corncob**
Promporn Reangchim
King Mongkut's Institute of Technology Ladkrabang, Thailand

ENR-P-11 **Process Optimization and Characterization of YSZ Thin Film Electrolyte on Anode Substrate Prepared by Electrophoretic Deposition Technique**
Malinee Meepho
Chulalongkorn University, Thailand

ENR-P-12 **r-GO/MWCNTs Nanocomposite Film as Electrode Material for Supercapacitor**
Suttinart Noothongkaew
Ubon Ratchathani University, Thailand

ENR-P-13 **Characterisation of NiO-YSZ Porous Anode-Supported for Solid Oxide Fuel Cells**
Nutthita Chuankrerkkul
Metallurgy and Materials Science Research Institute, Thailand

ENR-P-14 **Synthesis of Calcium Titanate by Hydrothermal Method and Modification for Biodiesel Catalyst**
Ratchadaporn Puntharod
Maejo University, Thailand

ENR-P-15 **Multiwalled Carbon Nanotubes/Cobalt Hydroxide on Polyester Woven Philippine Indigenous Fibers for Supercapacitor Electrode Materials**
Stephanie Chua
University of Santo Tomas, Philippines

ENR-P-17 **Investigating the Impact of Double-anodization on the Performance of Titania Nanotubes in Dye-sensitized Solar Cells**
Buagun Samran
Nakhon Phanom University, Thailand

MATERIALS TECHNOLOGY FOR ENVIRONMENT

ENV-P-01 **The Mechanical Properties of Waste Bakelite Aggregate Concrete**
Nopagon Usahanunth
Ramkamhaeng University, Thailand

ENV-P-02 **Performance Photocatalytic Degradation of Methomyl onto Composite Graphene Oxide/Bismuth Vanadate (GO/$BiVO_4$) Nanoparticle**
Pusit Pookmanee
Maejo University, Thailand

ENV-P-03 **The Photocatalytic Degradation of Methylene Blue using Bismuth Vanadate ($Bi_2VO_{5.5}$) Powder**
Jitreephan Phanmalee
Maejo University, Thailand

ENV-P-04 **Structure and Factors Affecting Mechanical Properties of Bamboo**
Suthon Srivaro
Walailak University, Thailand

ENV-P-05 **WO_3-doped TiO_2 Thin Films Synthesis by Microwave-assisted Sol-gel and Dip Coating Technique on Glass with Highly Antibacterial under Fluorescent Light**
Weerachai Sangchay
Rajabhat Songkla University, Thailand

ENV-P-06 **Exploitation of Ag_3PO_4 Impregnated Alginate Beads for The Photocatalytic Degradation of Dye Solution under Sunlight Irradiation**
Katnanipa Wanchai
Phranakhon Si Ayutthaya Rajabhat University, Thailand

ENV-P-07 **Photocatalytic Enhancement of Solar Water Disinfection using ZnO Nanorods Coated Cellulose Paper**
Supachai Songngam
National Metal and Materials Technology Center, Thailand

ENV-P-10 **Development of Epoxy Composites Reinforcement with Oil Palm Empty Fruit Bunch Fibers for Improvement in Mechanical and Thermal Properties for Bumper Beam in Automobile**
Jirachaya Boonyarit
Kasetsart Agricultural and Agro-Industrial Product Improvement Institute, Thailand

ENV-P-13 **The Effect of Carboxymathyl Celloulose fronm Various Agriculture Wastes on the Viscosity and Physical Properties of Low Concentration Solution of Surfactant**
Thritima Sritapunya
King Mongkut's University of Technology North Bangkok, Thailand

ENV-P-14 **Determination and Molecular Study of Tannin in Coffee Pulp**
Waleepan Rakitikul
Chiang Rai Rajabhat University, Thailand

ENV-P-15 **Synthesis of Carbon Nanoparticles from Used Mobil Oil and Benzene via Solution Plasma Process**
Napatsawan Saengarunthong
King Mongkut's Institute of Technology Ladkrabang, Thailand

ENV-P-16 **Efficiency of Acoustic Noise Reduction Multilayer Wall from Activated Carbon and Rice Straw**
Phiphop Narakaew
Lampang Rajabhat University, Thailand

ENV-P-17 **Porous Carbon Material Prepared from Cassava Tuber Char using Chemical Activation Assisted Sonochemical Process**
Kamonwan Aup-Ngoen
King Mongkut's University of Technology Thonburi, Thailand

ENV-P-18 **Utilization of Rice Straw and Coconut Coir in the Fabrication of Lightweight Precast Concretes**
Pat Sooksaen
Silpakorn University, Thailand

ENV-P-19 **Effect of Firing Conditions on Properties of Porous Hollow Cylindrical Zeolite NaA-Clay Substrates for TiO_2 Coating and Their Photodegradation of Lignin**
Nithiwach Nawaukkaratharnant
Chulalongkorn University, Thailand

ENV-P-20 **Adsorption of Reactive Dye (Blue 222) in Solution onto Chitosan-Rice Husk Ash Composite Beads Cross-Linked with Glutaraldehyde**
Ratana Sananmuang
Naresuan University, Thailand

ENV-P-21 **Removal of Reactive Dye Red 195, Blue 222 and Yellow 145 in Solution with Polyaniline-Chitosan Membrane using Batch Reactor**
Ratana Sananmuang
Naresuan University, Thailand

METALS, ALLOYS & INTERMETALLIC COMPOUNDS

MET-P-01 **Improvement of Structural, Morphological and Mechanical Properties of CrN_x Sputtered Thin Films by Vacuum Annealing Process**
Intira Nualkham
King Mongkut's Institute of Technology Ladkrabang, Thailand

MET-P-02 **Effects of Processing Parameters on Microstructure and Properties of ADC12 Aluminium-Silicon Alloys Produced by Die Casting**
Kasem Charoenrut
Chiang Mai University, Thailand

MET-P-03 **Effect of Compaction Pressure and Sintering Time on the Properties of Cu-10Sn Bronze**
Narut Nakrod
King Mongkut's University of Technology Thonburi, Thailand

MET-P-04 **Properties of Sintered Bronze-Graphite Containing Calcium Sulfate Derived from Waste Plaster Molds**
Chiraporn Auechalitanukul
King Mongkut's University of Technology Thonburi, Thailand

MET-P-05 **Investigation of Burst Rupture Disc**
Warunee Borwornkiatkaew
National Metal and Materials Technology Center, Thailand

MET-P-07 **Sheet Metal Formability Characterization**
Nopparat Seemuang
King Mongkut's University of Technology North Bangkok, Thailand

MET-P-08 **Study of Microstructure and Corrosion Resistance of Zinc Electrodeposits Before and After Black Chromating**
Kanokwan Saengkiettiyut
Chulalongkorn University, Thailand

MET-P-09 **Factors Affecting on the Corrosion Resistance of Electroless Ni-Zn-P Coated Steel**
Pranee Rattanawaleedirojn
Chulalongkorn University, Thailand

MET-P-10 **Extension of Creep Lifetime of Iron-Nickel-Base Superalloy at High Temperature by Adjusting Ti/C Ratio**
Chien-Lin Lai
China Steel Corporation, Taiwan

MET-P-11 **Residual and Tensile Stress Measurement in Carbon Steel by Magnetic Barkhausen Noise Technique**
Mai Noipitak
King Mongkut's University of Technology Thonburi, Thailand

POLYMERS

POL-P-01 **Effect of Preparation Techniques of Pineapple Leaf Fiber/PHBV Composites on Final Properties**
Pongsathorn Chaleerat
King Mongkut's University of Technology North Bangkok, Thailand

POL-P-02 **Effect of Octenyl Succinate Starch on Properties of Thermoplastic Tapioca Starch Blend**
Manisara Phiriyawirut
King Mongkut's University of Technology Thonburi, Thailand

POL-P-03 **The Smart Blending for Multilayer Structure of PLA/EVOH**
Wanlop Harnnarongchai
King Mongkut's University of Technology North Bangkok, Thailand

POL-P-04 **Effect of Synthesized Ag Nanoparticles with the Different Amounts of Polyvinylpyrrolidone on the Antibacterial Properties of Ag-Natural Rubber Hybrid Sheets**
Warot Prasanseang
King Mongkut's Institute of Technology Ladkrabang, Thailand

POL-P-05 **Mechanical and Thermal Properties of PS-g-NR Blended with Natural Rubber: Effect of Grafting Percentage of PS in PS-g-NR**
Tarakol Hongkeab
Kasetsart University, Thailand

POL-P-08 **Charged Iridium(III) Complexes with Varied Side Chain Length in OLEDs**
Natsiri Wongsang
Ubon Ratchathani University, Thailand

POL-P-09 **Strength Properties Improvement for Preparation Wood Plastic Composite by Polyester Resin and Rice Straw**
Panot Kosenter
Thai Nichi Institute of Technology, Thailand

POL-P-11 **Gelatin Films and Its Pregelatinized Starch Blends: Effect of Plasticizers**
Suchipha Wannaphatchaiyong
Prince of Songkla University, Thailand

POL-P-12 **Self-reinforced Composites from Pineapple Leaf Fibers**
Supachok Tanpichai
King Mongkut's University of Technology Thonburi, Thailand

POL-P-13 **Physical and Mechanical Properties of Wood Plastic Composites from Teak Wood Sawdust and High Density Polyethylene (HDPE)**
Duangkhae Bootkul
Srinakharinwirot University, Thailand

POL-P-14 **Degradation of Silica-reinforced Natural Rubber by UV Radiation and Humidity in Soil**
Manuchet Reowdecha
Kasetsart University, Thailand

POL-P-15 **Degradation Test of Natural Rubber/Chitosan Composite**
Chalermchat Sukthaworn
Kasetsart University, Thailand

POL-P-16 **Mechanical, Thermal and Hydrolytic Degradation of Stereocomplexed PLL/PDL–PEG–PDL Blends**
Aphinan Saengsrichan
Chiang Mai University, Thailand

POL-P-17 **Study and Development of Irradiation-based Processing System for Natural Rubber Vulcanization**
Kittiya Kosaentor
Chiang Mai University, Thailand

POL-P-18 **Mechanical and Thermal Properties of PLA Melt Blended with High Molecular Weight PEG Modified with Peroxide and Organo-Clay**
Teerani Chuawittayawut
Silpakorn University, Thailand

POL-P-19 **Investigation Of Radical Polymerization Of Furfuryl Methacrylate Using ESR**
Kyoungho Kim
Pusan National University, South Korea

POL-P-20 **Photo-oxidative Degradation Polyethylene Films Containing Titanium Dioxide and Poly(ethylene oxide)**
Tawat Soitong
Maejo University, Thailand

POL-P-21 **Influence of Molecular Weight on the Non-isothermal Melt Crystallization of Biodegradable Poly(D-lactide)**
Wanich Limwanich
Rajamangala University of Technology Lanna, Thailand

POL-P-22 **Toughening of Poly(buthylene succinate) with Epoxidized Natural Rubber: Mechanical, Thermal and Morphological Properties**
Sudsiri Hemsri
Silpakorn University, Thailand

POL-P-24 **Fabrication and Characterization Mixed Matrix Membrane of Polysulfone/polyimide–Carbon Nanotubes**
Tawat Soitong
Maejo University, Thailand

POL-P-25 **Study of Polymer type on Microstructure of Polymer Nanofiber by Electrospinning Technique**
Pojanart Rattanavoraviset
Maejo University, Thailand

POL-P-27 **Effect of Loofah Fiber on Mechanical Properties of Epoxy Resin**
Apaipan Rattanapan
King Mongkut's University of Technology North Bangkok, Thailand

POL-P-29 **Influence of Pyrolytic Carbon Black Prepared from Waste Tires on Mechanical Properties of Natural Rubber Vulcanizates**
Sarawut Prasertsri
Ubon Ratchathani University, Thailand

POL-P-30 **Study on Latex-state ^{13}C-NMR Spectroscopy**
Yusuke Iizuka
Nagaoka University of Technology, Japan