

POSTER

>> August 22 - 25 (4 days)

August 22, Monday	14:00 ~ 16:00, 3F Lobby
P1-01~20	Applications of Composites
P1-21~22	Bio-inspired Composites
P1-23~39	Biomedical Composites
P1-40~53	Carbon and Ceramic Matrix Composites
P1-54~57	Damage and Fracture
P1-58~59	Durability and Aging
P1-60	NDE Technologies
P1-61~63	Others

August 24, Wednesday	14:15 ~ 16:15, 3F Lobby
P3-01~15	Multi-functional Composites
P3-16~63	Nanocomposites
P3-64~70	Recycling
P3-71~74	Structural Response and Design

[ONE MINUTE SPEECH]

- Date : August 22, Monday
- Time : 14:00 ~ 15:00
- Room : 201A

August 23, Tuesday	14:15 ~ 16:15, 3F Lobby
P2-01	Applications of Composites
P2-02	Carbon and Ceramic Matrix Composites
P2-03~17	Energy Technology Applications
P2-18~35	Green Composites
P2-36~41	Impact and Dynamic Response
P2-42~57	Intelligent Textiles and Composites
P2-58~75	Mechanical and Physical Properties

August 25, Thursday	14:15 ~ 16:15, 3F Lobby
P4-01~02	Applications of Composites
P4-03	Bio-inspired Composites
P4-04	Damage and Fracture
P4-05	Energy Technology Applications
P4-06~09	Experimental Techniques
P4-10~19	Fibres, Matrices and Interfaces
P4-20~21	General Industrial Applications
P4-22~25	Health Monitoring
P4-26~27	Joints and Bearing Behavior
P4-28	Mechanical and Physical Properties
P4-29~45	Metal Matrix Composites
P4-46~50	NDE Technologies
P4-51~56	Others
P4-57~58	Probabilistic Approaches and Design
P4-59~72	Processing and Manufacturing Technologies
P4-73~75	Repair Technologies
P4-76	Sandwich Technologies
P4-77~80	Textile Composites
P4-81	Wood and Paper

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>> POSTER P1-1~20 : Applications of Composites

- P1-1** A STUDY ON OPTICAL AND STRUCTURAL PROPERTIES OF TELLURIUM OXIDE THIN FILMS FOR THE VARIATION OF SPUTTERING GAS RATIO
H Kong (Chonnam National University)
- P1-2** A SOLVENT-FREE COMPOSITE SOLID ELECTROLYTES OF $\text{Li}_2\text{CO}_3\text{-Al}_2\text{O}_3$ SYSTEM PREPARED VIA WATER BASED SOL GEL METHOD
M Sulaiman, AA Rahman, NS Mohamed (University of Malaya)
- P1-3** PREPARATION OF COPPER-SUPPORTED MESOPOROUS CARBON/EPOXY COMPOSITES AND THEIR THERMAL PROPERTIES
GY Heo, SJ Park (Inha University)
- P1-4** ANALYSIS OF BUCKLING LOAD OF FIBER-REINFORCED PLYWOOD PLATES
SW Choi, JU Roh, SH Park, WI Lee (Seoul National University)
- P1-5** EFFECT OF A NUCLEATING AGENT ON CRYSTALLIZATION BEHAVIOR AND MECHANICAL PROPERTY OF PLA STEREOCOMPLEX
BS Lee, BU Nam (Korea University Technology and Education), CH Hong (Hyundai-Kia Motors)
- P1-6** SYNERGISTIC FLAME RETARDANT EFFECT OF ATTAPULGITE ON PP/APP/PER COMPOSITES
SX Qing, T Jie, YY Wen, CY Hua, W Qin (Nanjing University)
- P1-7** PROPERTIES OF NANOSTRUCTURED TITANIUM COMPOSITE ON ALUMINUM SUBSTRATE
V Sirota, M Kovaleva, Y Trusova (Belgorod State University), Y Tyurin, O Kolisnichenko (Paton Electric Welding Institute)
- P1-8** EFFECT OF FILLER SIZE AND ITS BIMODAL DISTRIBUTION FOR HIGHLY THERMAL-CONDUCTIVE EPOXY COMPOSITES
JP Hong, JH Jeong, SW Yoon, TS Hwang, JH Lee, JS Oh, JD Nam, YK Lee (Sungkyunkwan University)
- P1-9** SUPERHYDROPHOBIC SURFACES FROM A SPRAY COATING PROCESS
HS Hwang, JK Shim and In Park (Korea Institute of Industrial Technology)
- P1-10** MERCURY ADSORPTION USING GUIDE-PATTERNED POROUS GOLD
BJ Park, CS Oh, YH Kim (Kwangwoon University)
- P1-11** MECHANICAL PERFORMANCES AND PLAYABILITY OF CFRP GOLF SHAFTS
KY Kim, JH Hwang (Korea Institute of Industrial Technology), SR Kim (Hyosung R&D Business Lab)
- P1-12** A STUDY ON THE FILTRATION PROPERTIES AND PEEL-OFF DURABILITY OF BAG FILTER MEDIA LAMINATED WITH PTFE MEMBRANES
JR Choi, YS Kim, MS Kim, YO Choi (Institute of Industrial Technology)
- P1-13** ANALYSIS AND NON-DESTRUCTIVE EVALUATION OF COMPOSITE OVERWRAPPED THICK-WALLED CYLINDERS
ST Ahn, KJ Kang, CK Cho (Agency for Defense Development)
- P1-14** EFFECT OF SEAL COMPOSITION ON THE PROPERTIES OF GLASS-MATRIX COMPOSITES FOR SOFC APPLICATIONS
DB Lee (Sungkyunkwan University), YI Kim, MJ Choi, S Park, JC Lee (Myongji University)
- P1-15** THE PREPARATION AND CHARACTERIZATION OF MULTI-LAYER BAG FILTER MEDIA VIA SPUNLACING PROCESS
YO Choi (Korea Institute of Industrial Technology)
- P1-16** PHASE CHANGE CHARACTERISTICS OF AU ADDED $\text{Ge}_2\text{Sb}_2\text{Te}_3$ THIN FILM FOR PRAM
JH Shin, HY LEE (Chonnam National University)

- P1-17** TAYLORED MAGNETIC ANISOTROPIES OF IRON ON BaTiO_3 AND SrTiO_3 SURFACES WITH ELECTRIC FIELDS: AN AB INITIO STUDY
HC Choi, YC Chung (Hanyang University)
- P1-18** COMPRESSIVE STRENGTH OF CET COLUMNS CONSIDERING CONFINEMENT BY INNER-CFT
KD Park, WS Hwang (Inha University), EH Bae, ES Cho (Hyundai Engineering)
- P1-19** DAMAGE EVALUATION OF FIBER REINFORCED CONCRETE BY HIGH-VELOCITY IMPACT
GY Kim, JS Nam, H Miyauchi (Chungnam National University), JH Park (Sampyo Co., Ltd)
- P1-20** PREDICTION OF MECHANICAL PROPERTIES FOR WOVEN Z-PINNED COMPOSITES
HJ Chun, JH Son, KT Kang (Yonsei University), JH Byun, MK Um, SK Lee (Korea Institute of Materials Science)

>> POSTER P1-21~22 : Bio-inspired Composites

- P1-21** PHYSICAL AND MECHANICAL PROPERTIES OF FOAMED HDPE-BASE SYNTHETIC RATTAN
A Phukringsri(Silpakorn University), N Hongsriphan(Center of Excellence for Petroleum, Petrochemical and Advanced Materials)
- P1-22** A HIGH SENSITIVE ENZYME-FREE H_2O_2 SENSOR BASED ON PRUSSIAN BLUE ELECTRODEPOSITION ON MICROPOROUS-AU ELECTRODE
J Yang, YI Oh, YK Lee (Sungkyunkwan University)

>> POSTER P1-23~39 : Biomedical Composites

- P1-23** MAGNETIC GADOLINIUM-CHITOSAN COMPOSITE NANOPARTICLES CREATED BY RADIOLYTIC SYNTHESIS
W Pasanphan, L Chunkoh, S Choofong (Kasetsart University)
- P1-24** DETECTION OF CRP BASED ON DBR POROUS SILICON INTERFEROMETERS
SY Um, BM Cho, HL Sohn (Chosun University)
- P1-25** SYNTHESIS AND CHARACTERIZATION OF HYALURONIC ACID MICRO-BEAD AND HYDROGEL IMPLANT CROSS-LINKED BY DIVINYLSULFONE
JT Kim, DY Lee (Daelim University), NI Cho (Sun Moon University)
- P1-26** BONE FORMATION OF HYDROXYAPATITE/STEM CELL BIOCOMPOSITES
KH Hwang (Gyeongsang National University), SC Han, JK Lee (Chosun University)
- P1-27** YTTRIA, CERIA DOPED ZIRCONIA-ALUMINIA CERAMIC COMPOSITES FOR DENTAL APPLICATIONS
RA Lyubushkin, O Ivanov (Belgorod State University), V Chuev, A Buzov(Trading House Ltd Vladmiva)
- P1-28** EFFECT OF ION SURFACE TREATMENT OF NITI ON ADHESION STRENGTH OF NANOSCALE CARBON COATING OBTAINED BY THE PULSED VACUUM ARC TECHNIQUE
K Marina, A Kolpakov, A Poplavsky, V Sirota, Y Trusova (Belgorod State University)
- P1-29** SELF ASSEMBLED NANOSTRUCTURE OF PLGA-GLUCOSAMINE COMPOSITE NANOPARTICLES
M Marimuthu, SH Kim (Kyungwon University)

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- P1-30** RADIOPACITY OF RESTORATIVE COMPOSITES FILLED WITH $\text{SiO}_2/\text{ZrO}_2$ CORE-SHELL PARTICLES
MA Kim, MH Lee, WS Seo (Korea Institute of Ceramic Engineering and Technology), MH Oh, WH Kim (Vericom CO.,Ltd), NS Oh (Inha University), YK Lee (Yonsei university college of dentistry), HJ Choi (Yonsei University)
- P1-31** APPLICATION OF BIOCHIP USING THE MOLECULAR BEACON PROBE IN BREAST CANCER GENE P53 DETECTION
AW Ninggar, Ferdiansyah (Bogor Agricultural University)
- P1-32** CMOS IMAGE SENSOR FOR DETECTION OF ANTIGEN-ANTIBODY INTERACTIONS
J Devadhasan, SH Kim (Kyungwon University)
- P1-33** IN-VITRO PERMEATION OF ANTIOXIDANT ANALOGS FOR DIABETIC VASCULAR DISEASE AND AGEING
D Bennet, SH Kim (Kyungwon University)
- P1-34** FABRICATION AND PHYSICAL PROPERTIES OF POLYCAPROLACTONE/STARCH BLENDS WITH CORN BASED COUPLING AGENT
FM Nor, D Kurniawan, HY Lee, JY Lim (Dongguk University)
- P1-35** BIOMECHANICAL RATIONALE FOR USING CARBON FIBER REINFORCED POLYMER SPACERS FOR LUMBAR INTERBODY FUSION-A FINITE ELEMENT STUDY
 KT Kang, HJ Chun, JA Lee (Yonsei University), JW Jang, Kwang-il Lee, Young-bock Shim (Korea Bone Bank Co, Ltd)
- P1-36** BIOCOMPATIBILITY AND ANTIMICROBIAL ACTIVITY OF HYDROXYAPATITE/TITANIA BIO-NANOCOMPOSITE
J Nathanael (Chungnam National University), D Mangalaraj (Bharathiar University), SI Hong (Chengnam National University)
- P1-37** ELECTRSPUN POLYAMIDE-6/LECITHIN NANOFIBERS FOR CELL CULTURE APPLICATIONS
 R Nirmala, HJ Oh, JJ Won, R Navamathavan, HY Kim (Chonbuk National University)
- P1-38** POLYURETHANE FOAM CONTAINING ALGinate HYDROGEL LOADED WITH EPIDERMAL GROWTH FACTOR
ST Oh (Seoul National University)
- P1-39** COMPARISON OF THE LOAD-SHARING CHARACTERISTICS BETWEEN PEDICLE-BASED COMPOSITE AND RIGID ROD DEVICES
 KY Kang, HJ Chun, HT Hong (Yonsei University)

>> POSTER P1-40~53 : Carbon and Ceramic Matrix Composites

- P1-40** ARENDIAZONIUM TOSYLATES AS NEW, AVAILABLE AND CONVENIENT REAGENTS FOR THE FORMATION OF ORGANIC LAYERS ON CARBON SURFACES
V Filimonov, P Postnikov, M Trusova, NS Surgutskaya (Tomsk Polytechnic University), KW Chi (Ulsan University)
- P1-41** A STUDY ON THE INFRARED THERMOGRAPHY CAMERA NONDESTRUCTIVE EVALUATION OF CARBON-CARBON BRAKE DISKS
HJ Shin, HG Kim, LK Kwac, SG Oh, TH Kim, B Sorn, SJ Cheon (Jeonju University)
- P1-42** DETERMINATION OF FRACTURE TOUGHNESS OF AMORPHOUS CARBON COATING USING INDENTATION METHOD
SM Raseel, WQ Yi, HK Ku, JM Byeon, TG Kim, JI Song (Changwon National University)
- P1-43** SYNTHESIS AND ELASTIC AND ANELASTIC PROPERTIES OF $(85\text{C}_{60}\text{-}15\text{C}_{70}\text{-}80)\text{-}(\text{B}_2\text{O}_3)_{20}$ COMPOSITE
O Ivanov (Belgorod State University), Y Kalinin, I Zolotukhin (Voronezh State Technical University)
- P1-44** PREPARATION AND MECHANICAL BEHAVIOR OF CARBON NANOFIBER REINFORCED THREE-PHASE CARBON-CARBON COMPOSITES
MH Nien, SS Tzeng (Tatung university)

- P1-45** TENSILE STRENGTH ENHANCEMENT OF CARBON-CARBON COMPOSITES BY DISPERSING CARBON BLACK
 Y Kogo, M Akimoto, K Tobita (Tokyo University of Science), H Hatta (Aerospace Exploration Agency)
- P1-46** MODELING STUDIES OF THE PREPARATION OF C/C COMPOSITES BY THE CVI PROCESS OF PROPANE
 GY Chung, DG Hwang (Hongik University)
- P1-47** PHASE STABILITY OF $\text{Ti}(\text{C}_{1-x}\text{N}_x)$ SOLID SOLUTIONS USING AB-INITIO CALCULATION
JW Kim, SH Kang (Seoul National University)
- P1-48** YARNS AND SHEETS FROM WELL ALIGNED MULT-WALLED CARBON NANOTUBES
HS Jang, SH Nahm (Korea Research Institute of Standards and Science), SC Lee, CS Kim (Pukyong National University)
- P1-49** SYNTHESIS OF W-ZrC AND W-Zr(CN) CERMETS
JH Lim, JH Kim, CK Park and SH Kang (Seoul National University)
- P1-50** LATTICE STRAIN EFFECT ON GRAIN GROWTH DURING SPARK PLASMA SINTERING OF ZrC AND W-ZrC
MS Seo, CK Park, JH Kim, SH Kang (Seoul National University)
- P1-51** REDUCED GRAPHITE OXIDE-INDIUM TIN OXIDE COMPOSITES FOR TRANSPARENT ELECTRODE USING SOLUTION PROCESS
KS Choi, YS Park, KC Kwon, JH Kim, CK Kim, ST Chang, SY Kim (Chung-Ang University)
- P1-52** PREPARATION AND THERMAL PROPERTIES OF SiC/CF NANOCOMPOSITES
CW Heo, SJ Cha, DH Suh (Hanyang University), DJ Lee, HM Lim, KY Cho (Korea Institute of Ceramic Engineering and Technology), CM Yang(Hyosung Co. Ltd)
- P1-53** SURFACE MODIFICATION FOR CONDUCTIVE BALLS WITH CARBON NANOTUBES AND GOLD NANOPARTICLES
YM Cho, CR Park (Seoul National University), M Park (Korea Institute of Science and Technology)

>> POSTER P1-54~57 : Damage and Fracture

- P1-54** STAB RESISTANCE OF ARAMID FABRICS REINFORCED WITH SILICA STF
HN Choi, TM Hong, EH Lee, SG Lee (Chungnam National University) JG Park, BI Yoon(Agency for Defence Development)
- P1-55** APPROPRIATE PROTECTIVE LAYER DESIGN TO PREVENT FILLER-INDUCED DAMAGE IN PLASTICALLY-ENCAPSULATED MICROELECTRONIC PACKAGES
SM Lee (University of Incheon)
- P1-56** INTERLAMINAR FRACTURE TOUGHNESS OF CF/PEI COMPOSITES
ES Kim, SW Byun, KY Kim, MS Kim (Korea Institute of Industrial Technology), SS Im (Hanyang University)
- P1-57** IMPACT ENERGY AND DAMAGE BEHAVIOR OF HYBRID COMPOSITE STRUCTURES UNDER HIGH VELOCITY IMPACT
SC Woo, JT Kim, TW Kim (Hanyang University), JY Kim (Agency for Defense Development)

>> POSTER P1-58~59 : Damage and Fracture

- P1-58** A STUDY ON DURABILITY OF CARBON FIBER REINFORCED POLYMERS IN CIVIL APPLICATIONS
 KY Kim, WJ Park (Korea Institute of Industrial Technology), YH Bang (Hyosung R&D Business Lab)
- P1-59** A STUDY ON THE CORRELATION OF AUTOFRETTAGE PRESSURE WITH CYCLING LIFE OF TYPE3 COMPOSITE PRESSURE VESSEL
KM Lee, JS Park, HG Lee (Korea Institute of Materials Science), ST Kim (Yeungnam University)

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>> POSTER P1-60 : NDE Technologies

- P1-60** DIGITAL INSIDE DENSITY PROFILE ACQUISITION METHOD OF CARBON/CARBON COMPOSITE BY A COMPUTED TOMOGRAPHY
[NG Yun](#), DR Kim, JY Lee (Agency for Defense Development)

>> POSTER P1-61~63 : Others

- P1-61** CONTROLLING COPOLYMERIZATION OF 2-PYRROLIDINONE WITH E-CAPROLACTAM AND THEIR THERMAL PROPERTIES
[SM Kim](#), KM Seon, CG Cho (Hanyang University)
- P1-62** DEPOSITION OF FEW LAYER GRAPHENE ON PLASTIC SUBSTRATE FOR USING CONDUCTIVE LAYER AT METAL ELECTROPLATING
[TS Hwang](#), JS Oh, GY Nam, JP Hong, T Ghosh, JD Nam (Sungkyunkwan University), AH Bae, SI Son, TH Han, HK Sung (Samsung Electronics)
- P1-63** SELECTIVE GROWTH OF MICRO SCALE GAN INITIATED ON TOP OF STRIPE GAN
[DW Jo](#), JE Ok, W Yun, HS Jeon, HS Ahn, M Yang (Korea Maritime University), MW Cho, SW Lee (Wavesquare)

>> POSTER P2-1 : Applications of Composites

- P2-1** STUDY OF PP/CLAY NANOCOMPOSITES PREPARED BY SUPERCRITICAL FLUID FOAMING
[KH Oh](#), YW Seo, KH Oh (Seoul National University)

>> POSTER P2-2 : Carbon and Ceramic Matrix Composites

- P2-2** THE EFFECT OF POST-PROCESSING OF CARBON FIBERS ON THE MECHANICAL PROPERTIES OF EPOXY-BASED COMPOSITES
[SH Han](#), HC Lee, YS Chung, SS Kim (Chonbuk National University)

>> POSTER P3~17 : Energy Technology Applications

- P2-3** PT ELECTROCATALYSTS COMPOSITED ON ELECTRO-SPUN PT NANOWIRES FOR DIRECT METHANOL FUEL CELLS
[GH An](#), HJ Ah (Seoul National University of Science and Technology)
- P2-4** THERMOELECTRIC PROPERTIES OF Cu-DISPERSED $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$ NANOCOMPOSITES
EJ Maeng, GE Lee, DK Shin, KH Park, SW You, SC Ur, [JH Kim](#) (Chungju National University)
- P2-5** INFLUENCE OF UREA TREATMENT OF MESOPOROUS CARBONS ON ELECTROCHEMICAL ACTIVITY OF PT-RU CATALYSTS FOR FUEL CELLS
[BJ Kim](#), SJ Park (Inha University)
- P2-6** PREPARATION AND PROPERTIES OF NAFION® COMPOSITE BASED ON ZIRCONIUM PHENYLPHOSPHATE LAYERD COMPOUND
[MS Kim](#), LJ Ghil, HW Rhee (Sogang University)
- P2-7** THE SILVER AND METAL OXIDE COMPOSITE FOR HIGH PERFORMANCE OF FRONT SILVER ELECTRODE WHICH APPLIED BULK SILICON SOLAR CELL
[JG Park](#), YI Lee, YH Choa (Hanyang University), IJ Lee, SG Kim, SM Lee, KH Chai (LG Innotek Component R&D Center)

- P2-8** NANOSTRUCTURAL THERMOELECTRIC MATERIALS OBTAINED BY SOLVOTHERMAL SYNTHESIS AND HOT ISOSTATIC PRESSURE
[Q Maradudina](#), R Lyubushkin, O Ivanov (Belgorod State University), W Lojkowski (Polish Academy of sciences)

- P2-9** DYE-SENSITIZED SOLAR CELL BASED ON TiO_2 -GRAPHENE COMPOSITE ELECTRODE
[B Tumursukh](#), T Truong, SB Ambade, RB Ambade, DS Lee, SH Lee (Chonbuk National University)

- P2-10** FABRICATION OF SILICON NANOWIRES USING ANODIC ALUMINUM OXIDE TEMPLATE
[HN Umh](#), YH Kim (Kwangwoon University)

- P2-11** EFFECT OF PREPARATION METHOD OF SULFUR/MWNT COMPOSITE ELECTRODE ON THE ELECTROCHEMICAL PROPERTIES OF LITHIUM/SULFUR BATTERY
[JW Park](#), JH Yu, KW Kim, KK Cho, HS Ryu, JS Park, JH Ahn, HJ Ahn (Gyeongsang National University), G Wang (University of Technology Sydney)

- P2-12** THE EFFECTS OF LINIPO₄ COATING ON SURFACE OF SULFUR DOPED $\text{Li}[\text{Co}_{0.1}\text{Ni}_{0.15}\text{Li}_{0.2}\text{Mn}_{0.55}]\text{O}_2$
[SW Cho](#), GO Kim, KS Ryu (University of Ulsan)

- P2-13** IN-SITU PREPARED COMPOSITE MATERIALS OF CONDUCTING POLYMER-METAL NANOPARTICLES AND THEIR APPLICATION TO ORGANIC SOLAR CELLS
[SH Woo](#), HK Lyu, YJ Jeong, SJ Jeong, JH Sim, WH Kim (DGIST), YK Kim (Kyungpook National University), YS Han (Catholic University of Daegu)

- P2-14** SYNTHESIS OF THERMALLY STABLE METAL-OXIDE HYBRID NANOCATALYST WITH ENCAPSULATION OF Pt and Ru NANOPARTICLES
[AS Reddy](#), SM Kim, JY Park (KAIST), JY Yun, S Yang (Korea Institute of Materials Science)

- P2-15** POLYPYRROLE (PPY)/CARBON NANOTUBE (CNT) HYBRID COMPOSITE ELECTRODE ON CERAMIC FABRIC FOR SUPERCAPACITOR APPLICATIONS
[H Lee](#), HK Kim, DH Jang, SJ Lee, MS Cho, JB Choi, YK Lee (Sungkyunkwan University)

- P2-16** EVALUATIONS OF HYDROGEN PERMEATION ON Al_2O_3 -ITO COMPOSITE MEMBRANE BY HOT PRESS SINTERING (HPS)
[KI Kim](#), SW You, YS Lee, DS Kim, SS Lee, NR Lee, TW Hong (Chungju National University)

- P2-17** PHOTOCATALYTIC OXIDATION OF ACETALDEHYDE BY MODIFIED CARBON NANOFIBERS
[SH Kim](#), MS Kim, SK Lim (DGIST), SK Choi (Kyungpook National University)

>> POSTER P2-18~35 : Green Composites

- P2-18** EVALUATION OF BASIC PROPERTIES OF KENAF (HIBISCUS CANNABINUS L.) PARTICLES AS RAW MATERIAL FOR PARTICLEBOARD
[JA Halip](#) (Institute of Tropical Forestry and Forest Products)

- P2-19** A COMPARISON OF DIFFERENT TREATMENT TO REMOVE RESIDUAL OIL IN OIL PALM EMPTY FRUIT BUNCH (OPEFB) FOR MEDIUM DENSITY FIBERBOARD (MDF) PERFORMANCE
[NIM Alilwi](#) (University Putra Malaysia)

- P2-20** INDUSTRIAL VIABILITY OF APA-6 MATRIX-BASED BASALT FIBER REINFORCED COMPOSITES
LO Moya, AA Lopez, JADL Esperanza, [JA Garcia-manrique](#) (Polytechnic University of Valencia)

- P2-21** EFFECT OF FILLER-CURING AGENT INTERACTION ON THE VULCANIZATION RATE OF STARCH/SBR COMPOSITES
[MC Li](#), UR Cho (Korea University of Technology and Education)

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- P2-22** EFFECT OF MOLDING CONDITION ON THE MECHANICAL PROPERTIES OF HEMP FIBER POLY(LACTIC ACID) COMPOSITES
[K Takada](#), S Kobayashi (Tokyo Metropolitan University)
- P2-23** EFFECT OF ALKALI-TREATMENT ON TENSILE PROPERTIES OF KENAF LONG FIBERS
[Y Niitta](#), J Noda, K Goda (Yamaguchi University), [WI Lee](#) (Seoul National University)
- P2-24** MECHANICAL PROPERTIES OF POLYLACTIC ACID AND NATURAL RUBBER BLEND USING CALCIUM CARBONATE AND VETIVER GRASS FIBER AS FILLER
[P Juntuek](#), [Y Ruksakulpiwa](#), P Chumsamrong (Suranaree University of Technology), C Ruksakulpiwat (Khon Kaen University)
- P2-25** EFFECT OF ORGANOCLEY TYPES ON MECHANICAL PROPERTIES AND FLAMMABILITY OF POLYPROPYLENE/SISAL FIBER COMPOSITES
[W Chanprapanon](#), N Suppakarn, K Jarukumjorn (Suranaree University of Technology)
- P2-26** PREPARATION OF GEOPOLYMER USING FLY ASH AND RICE HUSK SILICA AS RAW MATERIALS
[P Chaipayoom](#), S Jiemsirilers, S Wada (Chulalongkorn University), P Thavorniti (National Metal and Materials Technology Center)
- P2-27** MECHANICAL AND MORPHOLOGICAL PROPERTIES OF POLY (LACTIC ACID)/POLY (BUTYLENE ADIPATE-COTEREPHTHALATE)/CALCIUM CARBONATE COMPOSITE
[A Teamsinsungvon](#), Y Raksakulpiwat, K Jaruiumjorn (Suranaree University of Technology)
- P2-28** MICROCELLULAR STRUCTURES OF HIGH DENSITY POLYETHYLENE/WOOD FIBER COMPOSITE FOAMS USING CHEMICAL FOAMING AGENT
[JG Gwon](#), JH Kim, HC Kang (University of Seoul), SJ Chun, SY Lee, GH Doh (Korea Forest Research Institute)
- P2-29** PREPARATION AND CHARACTERIZATION OF BENZYLATED KENAF FIBER REINFORCED CELLULOSE DIACETATE BIOCOMPOSITE
[C Chen](#), SM Kim, YK Lee (Sungkyunkwan University)
- P2-30** EFFECTS OF MICROSTRUCTURE ON INTERNAL OXIDATION BEHAVIOR OF SILVER-CADMIUM ALLOY
[HW Shin](#), HS Lee (Korea Institute of Industrial Technology), SB Jung (Sungkyunkwan University)
- P2-31** IMPROVEMENTS OF INTERFACIAL ADHESION FROM COMPOSITES OF PLA AND ACETYLATED KENAF
[TJ Chung](#), BH Lee, HJ Lee, HJ Kwon, HJ Kim (Seoul National University)
- P2-32** EFFECT OF PLASMA POLYMERIZATION ON LYOCCELL FABRIC/PLA COMPOSITES
[JR Ha](#), BS Kim, SK Kim (Korea Institute of Materials Science), JI Song (Changwon National University)
- P2-33** EFFECT OF CHEMICAL PRE-TREATMENT ON THE CURE, MECHANICAL AND ABRASION PROPERTIES OF KENAF/NATURAL RUBBER GREEN COMPOSITES
YS Cho (Semyung Industrial Co.,Ltd), [HS Lee](#) (Korea Textile Development Institute), DH Cho (Kumoh National Institute of Technology)
- P2-34** MECHANICAL PROPERTIES AND BIODEGRADABILITY OF GREEN COMPOSITES BASED ON POLYLACTIC-ACID POLYMER
N Suardana, A Abdalla, HK Kim, KS Choi, [JK Lim](#) (Chonbuk National University)
- P2-35** PREPARATION AND CHARACTERIZATION OF GREEN COMPOSITE USING ALKYL CHAIN DERIVATIVE MODIFIED LIGNIN
[SH Kim](#), ST Oh, HY Jeong, JS Park (Seoul National University)

>> POSTER P36~41 : Impact and Dynamic Response

- P2-36** Z-TRANSFORM ANALYSIS OF CO-WOVEN-KNITTED (CWK) COMPOSITE UNDER TENSION AT HIGH STRAIN RATE
P Ma, B Sun, L Jin, Z Niu (Donghua University)
- P2-37** A COMPARISON OF BULLET-PROOF BEHAVIORS BETWEEN THREE-DIMENSIONAL ANGLE-INTERLOCK WOVEN FABRIC AND ITS REINFORCED COMPOSITE
[L Jin](#), P Ma, Z Niu, B Sun (Donghua University)
- P2-38** FREQUENCY FEATURES OF 3D BASALT FIBER WOVEN COMPOSITES UNDER COMPRESSION AT HIGH STRAIN
[Z Niu](#), P Ma, L Jin, B Sun (Donghua University)
- P2-39** NUMERICAL SIMULATION ON FATIGUE TEST OF COMPOSITE ROTOR BLADE FOR MULTI-MEGAWATT WIND TURBINE
[JK Park](#), JS Park, SH Lee (Korea Institute of Machinery and Materials), HG Lee, WG Lee (Korea Institute of Materials Science)
- P2-40** THE CORRELATION BETWEEN STATIC INDENTATION EXPERIMENT AND ANALYTICAL MODEL FOR THE BEHAVIOR OF THE COMPOSITE LAMINATES SUBJECTED TO HIGH VELOCITY IMPACT
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- P2-45** ROOM TEMPERATURE FABRICATION OF FLEXIBLE DSSCS USING ELECTROSPRAY METHOD
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- P2-46** COMPARISONS OF CYANOSTILBENE DERIVATIVES BETWEEN 2-DIMENSIONAL AGGREGATION USING LB TECHNIQUE AND 3-DIMENSIONAL AGGREGATION
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- P2-47** PHOTOVOLTAIC PERFORMANCE OF DYE-SENSITIZED SOLAR CELL INCOPERATED WIRE ELECTRODE
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- P2-48** PHOTOCATALYTIC ACTIVITY VIA SYNTHESIS OF TiO₂ NANOWIRES CONTROLLED MICROSTRUCTURE AND SURFACE AREA BY ELECTROSPINNING METHOD
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- P2-49** DEVELOPMENT OF ELECTROMAGNETIC WAVE SHIELDING MATERIAL BY CONTROLLING COMPOUNDING ORIENTATION OF METALLIC FILLER IN POLYMER MATRIX
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- P2-52** HYPERBRANCHED ARAMID-GRAFTED CARBON NANOTUBES FOR HIGH PERFORMANCE NANOCOMPOSITES
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- P2-60** THE STUDIES OF THERMAL STABILITY OF TUNGSTEN CARBON NITRIDE (WCN) THIN FILMS USING NANO-TRIBOLOGY
SL Kim, JY Kim, KY Lee, CW Lee (Kookmin University)
- P2-61** ANISOTROPIC BEHAVIOR IN BENDING DEFORMATION OF CF/EPOXY AND CF/PPS LAMINATES UNDER CONCENTRATED AND THERMAL LOAD
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- P2-64** EFFECT OF PERIODICAL FIBER WAVING ON TENSILE STRENGTH OF PLAIN WOVEN CFRP LAMINATES
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- P2-65** HIGH-TEMPERATURE MECHANICAL PROPERTIES OF DOMESTIC RAYON BASED CARBON FABRIC/CARBON COMPOSITES
JK Park (Agency for Defense Development)
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- P2-68** PREPARATION AND CHARACTERIZATION OF LANTHANUM HEXAALUMINATE GRANULE FOR CATALYTIC APPLICATION IN AEROSPACE TECHNOLOGY
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- P2-69** EFFECTS OF CONSOLIDATION TEMPERATURE ON THE MECHANICAL PROPERTIES OF ALL-POLYESTER SELF-REINFORCED COMPOSITES
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- P2-70** STUDY OF CURING CYCLE INFLUENCE ON MECHANICAL PROPERTIES FOR COMPOSITES MANUFACTURED BY RESIN INFUSION PROCESS
J Carvalho, CB Martinez (University of Sao Paulo)
- P2-71** SILICA AEROGEL FOR MECHANICAL REINFORCEMENT OF THERMOSET EPOXY POLYMER
NH Kim, HS Hwang, JY Lee, KH Choi, I Park (Korea Institute of Industrial Technology)
- P2-72** ENHANCEMENT OF ETCHING FACTOR OF COPPER CIRCUIT BY CORRELATING BETWEEN MICROSTRUCTURE AND PATTERN SHAPE
HS Lee, HJ Lee, HC Kwon (Korea Institute of Industrial Technology)
- P2-73** EVALUATION OF HYDROGEN PERMEABILITY ON NIO-DOPED ALUMINA BASED NICKEL COMPOSITE MEMBRANE
BY Son, YS Kim, MW Jung (Sungshin Womens University)
- P2-74** STRESS-STRAIN CURVES DERIVED FROM CONTINUOUS NANO-INDENTATION OF W-C-N FILMS
SI Kim, KY Lee, JY Kim, HW Oh, CW Lee (Kookmin University), HW Kim (KAIST)
- P2-75** EFFECTS OF SURFACE TREATMENTS WITH FLAME PLASMA AND SILANE ON MECHANICAL PROPERTIES OF SILICA REINFORCED ELASTOMERIC COMPOSITES
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- P3-3** ELECTRICALLY CONDUCTING COMPOSITE HOLLOW FIBERS
SH Kim, MK Shin, SJ Kim (Hanyang University)

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- P3-4** BENDING BEHAVIOR OF A THIN SINGLE-LAYER CARBON-NANOFIBER/POLYPYRROLE COMPOSITE FILM
S Zhang, [C Kim](#) (Kyungpook National University)
- P3-5** PREPARATION AND PROPERTIES OF NANO-ATP/ TiO₂/ PP COMPOSITES
W Qin, T Jie, [SX Qing](#), CY Hua, HP Ting (Nanjing University of Aeronautics and Astronautics), H Chen (Nanjing Jinshan Automobile Engineering Plastics Co.,Ltd.)
- P3-6** A MULTI-SCALE EXPERIMENTAL ANALYSIS FOR MECHANICAL PROPERTIES OF CARBON NANOTUBE FIBERS BY RAMAN SPECTROSCOPY
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- P3-13** PROPERTIES OF POLYMER-CARBON NANOTUBE COMPOSITES FABRICATED BY HIGH-SHEAR PROCESS
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[DS Seo](#), MJ Yoo, WS Lee, SD Park (Korea Electronics Technology Institute)
- P3-15** FUNCTIONALIZATION OF GRAPHENE NANOPATELETS WITH AN ELASTOMER CTBN AND THE EFFECT ON THE VINYL ESTER NANOCOMPOSITES
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- P3-19** PROPERTIES OF POLYPROPYLENE/CARBON FIBER/MULTI-WALLED CARBON NANOTUBE NANOCOMPOSITES
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- P3-20** THERMALLY CONDUCTIVE CARBON FILLED POLYMER COMPOSITES
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- P3-22** STRUCTURES AND PHYSICAL PROPERTIES OF CELLULOSE DRIVATIVE/EXFOLIATED GRAPHITE NANOCOMPOISTES PREPARED BY MELT-SHEAR MIXING
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[GA Forental](#), SB Sapozhnikov (South Ural State University)
- P3-29** FABRICATION, STRUCTURE, AND MAGNETIC PROPERTIES OF CARBON/NiFe₂O₄ COMPOSITE NANOFIBERS
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- P3-30** STRUCUTURE AND PHOTOLUMINESCENCE PROPERTIES OF TeO₂-CORE/TiO₂-SHELL NANOWIRES
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- P3-35** CONTROL OF MECHANICAL PROPERTIES ACCORDING TO CONTENT RATIO OF COPPER COATED CARBON NANOTUBES IN ALUMINUM COMPOSITE
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- P3-36** THE EXTUSION FOAMING OF TPEV/CLAY NANOCOMPOSITE
[SB Park](#), CH Choi, CM Park (Honam Petrochemical Corporation)
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- P3-38** COLORIMETRIC DETECTION OF METAL IONS WITH TWEEN COATED GOLD NANOPARTICLE
[JK Roh](#), JH Shim, YH Kim (Kwangwoon University)
- P3-39** SYNTHESIS AND ELECTROCHEMICAL PROPERTIES OF $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ CATHODE MATERIALS BY ELECTROSPUN PROCESS
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- P3-40** AN INVESTIGATION ON STABILITY OF Y_2O_3 AND SINTERING BEHAVIOR OF FE-BASE ODS PARTICLES PREPARED BY HIGH ENERGY BALL MILLING
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- P3-45** PREPARATION AND CHARACTERIZATION OF CONDUCTIVE ELECTROSPUN POLYPYRROLE NANOFIBERS CONTAINING MULTI-WALL CARBON NANOTUBES
[KH Lee](#), WS Huh, SW Lee, HJ Bae, YK Shim (Soongsil University)
- P3-46** CELLULOSE NANOCRYSTALS WITH HIGH THERMAL STABILITY AND THEIR NANOCOMPOSITES WITH POLY(LACTIC ACID)
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[SY Yim](#), DH Lee, SS Jang, AY Kim, DJ Byun
- P3-49** FABRICATION OF POLYDOPAMINE EMBEDDED REDUCED GRAPHENE OXIDE PAPER
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- P3-51** RELATIONSHIP BETWEEN DISPERSION AND UV-VISIBLE TRANSMITTANCE IN NANOCARBONS REINFORCED COMPOSITES
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- P3-53** SURFACE FUNCTIONALIZATION OF MULTI-WALLED CARBON NANOTUBES WITH RANDOM COPOLYMER: SYNTHESIS, CHARACTERIZATION AND PROPERTIES
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- P3-57** PREPARATION AND CHARACTERIZATION OF INORGANIC NANOPARTICLES AND NANOCOMPOSITES FOR SENSING MATERIALS
[SJ Cha](#), CW Heo, DH Suh (Hanyang University), DJ Lee, HM Lim (Korea Institute of Ceramic Engineering and Technology), SK Lim (Daegu Gyeongbuk Institute of Science & Technology), HD Kim, HS Kim (Pusan National University)
- P3-58** ELECTRICAL AND THERMAL PROPERTIES OF NANOCOMPOSITES FILLED WITH HYBRIDS OF GRAPHENE OXIDE AND SILVER NANOWIRE
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[HD Nguyen](#), DS Lee, HN Kim (Chonbuk National University)
- P3-60** FABRICATION OF CONDUCTIVE AND TRANSPARENT SINGLE WALLED CARBON NANO TUBE FILM WITH PEDOT
H Yun, J Song, H Kim, S Kim (Kyungwon University)
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[SH Kim](#), SY Oh, TJ Kang (Seoul National University)
- P3-63** FABRICATION PROCESS OF ALUMINA NANOPARTICLES-DISPERSED-THERMOELECTRIC COMPOSITE POWDERS
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YS Lee, SS Lee, HY Song, KP Lee (Hanbat National University)
- P3-65** RECYCLING OF THERMOSET COMPOSITES BY MICROWAVE PYROLYSIS
D Akesson, M Skrifvars (University of Boras)
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- P3-67** RHEOLOGICAL AND PHYSICAL PROPERTIES OF DECROSS-LINKED POLYETHYLENE FOAMS USING EXTRUDER
YJ Kwon, HK Cho, CM Koo, SM Hong (Korea Institute of Science and Technology)
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KN Hui, JY Lee, W Guo (Pusan National University), SK Lee (Korea Institute of Energy Research), KS Hui (City University of Hong Kong)
- P3-69** PREPARATION AND PROPERTIES OF COPOLYMERS OF EPOXY RESIN AND DEPOLYMERIZATE OF POLYURETHANE SCRAPS
HN Kim, DS Lee, DH Nguyen (Chonbuk National University)
- P3-70** RECYCLING OF WASTED PRINTED CIRCUIT BOARDS IN NEAR-CRITICAL WATER AND THE EFFECTS OF REACTION CONDITIONS ON THE DECOMPOSITION RATE
J Lin (Harbin Institute of Technology)

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- P3-72** LARGE DISPLACEMENT ANALYSIS OF SHAPE MEMORY ALLOY FIBER REINFORCED LAMINATE COMPOSITE
HK Cho (KAIST Satellite Technology Research Center)
- P3-73** DEVELOPING ANISOTROPIC BEAM ELEMENT FOR DESIGN OF COMPOSITE WIND TURBINE BLADES
TS Kim, K Branner, AM Hansen (Risø DTU)
- P3-74** DESIGN OF FIBER REINFORCED COMPOSITE LAMINATES AND DISCUSSION ON FEASIBLE REGION OF LAMINATION PARAMETERS
ST Liu, YP Hou (Dalian University of Technology)

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SJ Chung, M Govindan, JW Jang, IS Moon (Sunchon National University)
- P4-2** THE DEVELOPMENT OF THERMAL CONDUCTIVE COMPOSITE MATERIAL FOR HEATSINK
YS Yoon, MH Oh, AY Kim (Korea Automotive Technology Institute)

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