

November 1-4, 2015

Preliminary Program Schedule		General Outline of sessions													
Nov.1		NOV.2				Nov.3				Nov.4					
	8:30 - 9:20	Registration				8:30 - 9:00	Registration				8:30 - 9:00	Registration			
	9:20 - 9:30	Opening Remark Prof. Chang-Sik Ha				9:00 - 09:40	PL-3 Hatsuo Ishida (USA)				9:00 - 09:40	PL-5 Toyoko Imae (Taiwan)			
	9:30 - 10:10	PL-1 Valerii Bukhtyarov (Russia)				09:40 - 10:20	PL-4 Eduardo Ruiz-Hitzky (Spain)				09:40 - 10:10	KL-5 Nanfeng Zheng (China)			
	10:10 - 10:40	KL-1 Junghyun Kim (Korea)				10:20 - 10:50	Group Photo Coffee break				10:10 - 10:30	Coffee break			
	10:40 - 11:10	KL-2 Tadahisa Iwata (JAPAN)				10:50 - 11:10	IL-11 Miho Yamauchi (Japan)	IL-13 Vyacheslav Mokhovov (Russia)			10:30 - 10:50	IL-15 Tasuku Nakajima (Japan)	IL-16 Li-Jen Chen (Taiwan)		
	11:10 - 11:30	Coffee break				11:10 - 11:30	IL-12 Youngkyoo Kim (Korea)	IL-14 Limin Wu (China)			10:50 - 11:05	O-8 Kai-Yu Yang (Taiwan)	O-10 Ryohel Ishige (Japan)		
	11:30 - 11:50	IL-1 Bruno Ameduri (France)	IL-3 Hajime Kishi (Japan)			11:30 - 11:45	O-6 Maria N. Timofeeva (Russia)	O-7 Pravitorn Samprasert (Thailand)			11:05 - 11:20	O-9 Ya-Ting Hsieh (Japan)	11:05 - 11:25	IL-18 Ildoo Chung (Korea)	
	11:50 - 12:10	IL-2 Shinji Amdo (Japan)	IL-4 Inwoo Cheong (Korea)			11:45 - 12:30	Lunch				11:20 - 11:40	IL-17 Nguyen Vu Giang (Vietnam)	11:25 - 11:45	IL-19 Sung Soo Park (Korea)	
	12:10 - 13:30	Lunch				12:30 - 14:00	Poster session				11:40 - 11:55	O-11 Aleksey Vodyagin (Russia)			
	13:30 - 14:10	PL-2 Kimoan Kim (Korea)								11:55 - 12:10	Closing Remark (Prof. Thal Hoang)				
	14:10 - 14:40	KL-3 Alexei Khokhlov (Russia)													
	14:40 - 15:10	KL-4 Huishen Peng (China)													
	15:10 - 15:30	Coffee break													
	15:30 - 15:50	IL-5 Toshiji Kanaya (Japan)	IL-8 Thibaud Coradin (France)												
	15:50 - 16:10	IL-6 Atsunshi Takahara (Japan)	IL-9 Thai Hoang (Vietnam)			14:00 - 18:00				Excursion					
	16:10 - 16:30	IL-7 Yuri Shchipunov (Russia)	IL-10 Supason Wanich wecharungruang (Thailand)												
	16:30 - 16:50	Coffee break													
	16:50 - 17:05	O-1 Pilar Aranda (Spain)	O-4 Pavel Pyryaev (Russia)												
	17:05 - 17:20	O-2 Chun-Yi Li (Taiwan)	O-5 Wonho Kim (Korea)												
	17:20 - 17:35	O-3 Sergey Sarin (Russia)													
18:00 - 20:00	Welcome Mixer					18:00 - 21:00	Banquet								

November 2, 2015

	Moonchang Hall A (1F)	Hyowon Hall (2F)
8:30 - 9:20	Registration	
9:20 - 9:30	Hyowon Hall (2F) (Chair: Ildoo Chung) Opening Remark Prof. Chang-Sik Ha	
9:30 - 10:10	Hyowon Hall (2F) (Chair: Yury Shchipunov) PL-1, Valerii Bukhtiyarov, Russia	
10:10 - 10:40	Hyowon Hall (2F) (Chair: Bruno Ameduri) KL-1, Junghyun Kim, Korea	
10:40 - 11:10	Hyowon Hall (2F) KL-2, Tadahisa Iwata, Japan	
11:10 - 11:30	Coffee break	
11:30 - 11:50	(Chair: Toshi Kanaya) IL-1, Bruno Ameduri, France	(Chair: Youngkyoo Kim) IL-3, Hajime Kishi, Japan
11:50 - 12:10	IL-2, Shinji Ando, Japan	IL-4, Inwoo Cheong, Korea
12:10 - 13:30	Lunch	
13:30 - 14:10	Hyowon Hall (2F) (Chair: Chang-Sik Ha) PL-2, Kimoon Kim, Korea	
14:10 - 14:40	Hyowon Hall (2F) (Chair: Supason Wanichwecharungruang) KL-3, Alexei Khokhlov, Russia	
14:40 - 15:10	Hyowon Hall (2F) KL-4, Huishen Peng, China	
15:10 - 15:30	Coffee break	
15:30 - 15:50	(Chair: Shinji Ando) IL-5, Toshiji Kanaya, Japan	(Chair: Hajime Kishi) IL-8, Thibaud Coradin, France
15:50 - 16:10	IL-6, Atsushi Takahara, Japan	IL-9, Thai Hoang, Vietnam
16:10 - 16:30	IL-7, Yury Shchipunov, Russia	IL-10, Supason Wanichwecharungruang, Thailand
16:30 - 16:50	Coffee break	
16:50 - 17:05	(Chair: Inwoo Cheong) O-1, Pilar Aranda, Spain	(Chair: Thibaud Coradin) O-4, Pavel Pyrjaev, Russia
17:05 - 17:20	O-2, Chun-Yi Li, Taiwan	O-5, Wonho Kim, Korea
17:20 - 17:35	O-3, Sergey Sarin, Russia	

November 3, 2015

	Moonchang Hall A (1F)	Hyowon Hall (2F)
8:30 - 9:00	Registration	
9:00 - 09:40	Hyowon Hall (2F) (Chair: Atsushi Takahara) PL-3, Hatsuo Ishida, USA	
09:40 - 10:20	Hyowon Hall (2F) (Chair: Limin Wu) PL-4, Eduardo Ruiz-Hitzky, Spain	
10:20 - 10:50	Group Photo Coffee break	
10:50 - 11: 10	(Chair: Sung Soo Park) IL-11, Miho Yamauchi, Japan	(Chair: Ildoo Chung) IL-13, Vyacheslav Moichanov, Russia
11:10 - 11:30	IL-12, Youngkyoo Kim, Korea	IL-14, Limin Wu, China
11:30 - 11:45	O-6, Maria N. Timofeeva, Russia	O-7, Pawatsanai Samutprasert, Thailand
11:45 - 12:30	Lunch	
12:30 - 14:00	Moonchang Hall B (1F) Poster session	
14:00 - 18:00	Excursion	
18:00 - 21:00	Banquet	

November 4, 2015

	Moonchang Hall A (1F)	Hyowon Hall (2F)	
8:30 - 9:00	Registration		
9:00 - 09:40	Hyowon Hall (2F) PL-5, Toyoko Imae, Taiwan		(Chair: Li-Jen Chen)
09:40 - 10:10	Hyowon Hall (2F) KL-5, Nanfeng Zheng, China		(Chair: Inwoo Cheong)
10:10 - 10:30	Coffee break		
10:30 - 10:50	(Chair: Miho Yamauchi) IL-15, Tasuku Nakajima, Japan	(Chair: Sung Soo Park) IL-16, Li-Jen Chen, Taiwan	
10:50-11:05	O-8, Kai-Yu Yang, Taiwan	O-10, Ryohei Ishige, Japan	
11:05 - 11:20	O-9, Ya-Ting Hsieh, Japan	11:05 - 11:25	IL-18, Ildoo Chung, Korea
11:20 - 11:40	(Chair: Tasuku Nakajima) IL-17, Nguyen Vu Giang, Vietnam	11:25 - 11:45	(Chair: Ildoo Chung) IL-19, Sung Soo Park, Korea
11:40 - 11:55	O-11 Aleksey Vedyagin, Russia		
11:55 - 12:10	Closing Remark (Prof. Thai Hoang)		

Program

Sunday, Nov. 1 (Moonchang Hall, 1 F)

18:00-20:00 Welcome Mixer

Monday, Nov. 2 (Hyowon Hall, Moonchang Hall A)

08:30-09:20 Registration

(Chair: Ildoo Chung)

09:20-09:30 Opening Remark (Prof. Chang-Sik Ha)

(Chair: Yury Shchipunov)

(PL-1) 09:30-10:10 **Valerii Bukhtiyarov**, Borekov Institute of Catalysis, Russia

SUPPORTED BIMETALLIC PD-BASED CATALYSTS FOR SELECTIVE OXIDATION AND HYDROGENATION: ENHANCEMENT OF THE SELECTIVITY VIA TUNING THE COMPOSITION AND STRUCTURE OF SURFACE ACTIVE CENTERS

(Chair: Bruno Ameduri)

(KL-1) 10:10-10:40 **Junghyun Kim**, Yonsei University, Korea

EFFECTS OF IN-SITU CARBON HYBRIDIZATION WITH PEDOT:PSS FOR ORGANIC POLYMER THERMOELECTRICS

(KL-2) 10:40-11:10 **Tadahisa Iwata**, The University of Tokyo, Japan

HIGH-PERFORMANCE MICROBIAL POLYESTERS AND POLYSACCHARIDE DERIVATIVES

11:10-11:30 Coffee Break

(Chair: Toshi Kanaya)

(IL-1) 11:30-11:50 **Bruno Ameduri**, Institute Charles Gerhardt Ecole Nat. Sup. Chimie, France

ENERGY-RELATED MATERIALS BASED ON CHLOROTRIFLUOROETHYLENE COPOLYMERS

(IL-2) 11:50-12:10 **Shinji Ando**, Tokyo Institute of Technology, Japan

MULTI-COLOR FLUORESCENT POLYIMIDES WITH VERY LARGE STOKES SHIFTS AND THEIR PERFORMANCE FOR SOLAR SPECTRAL CONVERSION

(Chair: Youngkyoo Kim)

(IL-3) 11:30-11:50 **Hajime Kishi**, University of Hyogo, Japan

EPOXY / FUNCTIONAL FILLER COMPOSITES USING PHASE STRUCTURES OF EPOXY POLYMER ALLOYS

(IL-4) 11:50-12:10 **Inwoo Cheong**, Kyungpook National University, Korea

BLOCK COPOLYMERS FOR GRAPHENE DISPERSION: A NONCOVALENT FUNCTIONALIZATION

12:10-13:30 Lunch

(Chair: Chang-Sik Ha)

(PL-2) 13:30-14:10 **Kimoon Kim**, POSTECH, Korea
SUPRAMOLECULAR APPROACHES TO FUNCTIONAL MATERIALS

(Chair: Supason Wanichwecharungruang)

(KL-3) 14:10-14:40 **Alexei Khokhlov**, Lomonosov Moscow State University, Russia
COMPUTER MODELING OF NANOSTRUCTURED POLYMER SYSTEMS

(KL-4) 14:40-15:10 **Huishen Peng**, Fudan University, China
WEARABLE FIBER-SHAPED ENERGY HARVESTING AND STORAGE DEVICES

15:10-15:30 Coffee Break

(Chair: Shinji Ando)

(IL-5) 15:30-15:50 **Toshiji Kanaya**, Kyushu University, Japan
SHEAR- AND DEFORMATION-INDUCED POLYMER CRYSTALLIZATION STUDIED BY SMALL-ANGLE
NEUTRON AND X-RAY SCATTERING

(IL-6) 15:50-16:10 **Atsushi Takahara**, Kyushu University, Japan
AQUEOUS INTERFACE STRUCTURE AND ANTI-FOULING BEHAVIOR OF POLYELECTROLYTE BRUSHES

(IL-7) 16:10-16:30 **Yury Shchipunov**, Russian Academy of Sciences, Russia
SILICA WITH REGULATED MESO-/MACROPOROSITY AND HYDROPHILICITY/HYDROPHOBICITY

(Chair: Hajime Kishi)

(IL-8) 15:30-15:50 **Thibaud Coradin**, Collège de France, France
COLLAGEN-BASED COMPOSITES AS MEDICATED WOUND DRESSINGS

(IL-9) 15:50-16:10 **Thai Hoang**, Vietnam Academy of Science and Technology, Vietnam
PREPARATION, CHARACTERIZATION, AND DRUG RELEASE OF POLY(LACTIC ACID)/CHITOSAN
NANOPARTICLES CARRYING NIFEDIPINE

(IL-10) 16:10-16:30 **Supason Wanichwecharungruang**, Chulalongkorn University, Thailand
BRINGING MACROMOLECULES INTO CELLS USING CARBON NANOPARTICLES

16:30-16:50 Coffee Break

(Chair: Inwoo Cheong)

(O-1) 16:50-17:05 **Pilar Aranda**, Instituto de Ciencia de Materiales de Madrid, Spain
CLAY-BASED NANOSTRUCTURED MATERIALS CONTAINING ANATASE AND NOBLE METAL

- NANOPARTICLES FOR PHOTOCATALYTIC HYDROGEN PRODUCTION
(O-2) 17:05-17:20 **Chun-Yi Li**, National Taiwan University, Taiwan
FABRICATION OF ADHESIVE CONDUCTIVE THIN FILMS ON STRETCHABLE SUBSTRATES
(Chair: Thibaud Coradin)
- (O-3) 17:05-17:20 **Sergey Sarin**, Russian Academy of Sciences, Russia
CHITOSAN NANOCRYSTALLINE MICROPARTICLES FORMED WITH CLAY NANOPARTICLES VIA SELF-ASSEMBLY
- (O-4) 16:50-17:05 **Pavel Pyrjaev**, G.K. Boreskov Institute of Catalysis, Russia
CATALYTICALLY ACTIVE MATERIALS COMPRISING GOLD NANOPARTICLES AND CARBON SUPPORTS FOR GREEN PRODUCTION OF GLUCONATES AND GLYPHOSATE
- (O-5) 11:05-11:20 **Wonho Kim**, Pusan National University, Korea
INFLUENCE OF THE AMOUNTS OF GLYCIDYL METHACRYLATE ON THE MECHANICAL AND DYNAMIC PROPERTIES OF STYRENE-BUTADIENE-GLYCIDYL METHACRYLATE TERPOLYMER/SILICA COMPOUNDS

Tuesday, Nov. 3 (Hyowon Hall, Moonchang Hall A)

- 08:30-09:00 Registration
(Chair: Atsushi Takahara)
- (PL-3) 09:00-09:40 **Hatsuo Ishida**, Case Western Reserve University, USA
A SMART CHEMICAL APPROACH FOR DEVELOPING VERY HIGH PERFORMANCE POLYBENZOXAZINES AND MOLECULAR UNDERSTANDING OF THE UNUSUAL PROPERTIES
(Chair: Limin Wu)
- (PL-4) 09:40-10:20 **Eduardo Ruiz-Hitzky**, Instituto de Ciencia de Materiales de Madrid, Spain
CLAY-BASED ADVANCED MATERIALS FROM FUNDAMENTALS TO APPLICATIONS
- 10:20-10:50 Group Photo / Coffee Break
(Chair: Sung Soo Park)
- (IL-11) 10:50-11:10 **Miho Yamauchi**, Kyushu University, Japan
MATERIALS DEVELOPMENT FOR THE REALIZATION OF CARBON-NEUTRAL ENERGY CYCLES
- (IL-12) 11:10-11:30 **Youngkyoo Kim**, Kyungpook National University, Korea
POLYMER SOLAR CELLS - TOWARD HIGH EFFICIENCY AND PROLONGED LIFETIME
- (O-6) 11:30-11:45 **Maria N. Timofeeva**, Boreskov Institute of Catalysis SB RAS, Russia
ISOMERIZATION OF α -PINENE OXIDE TO CAMPHOLENIC ALDEHYDE OVER FE-AND AL-CONTAINING MATERIALS

(Chair: Ildoo Chung)

(IL-13) 10:50-11:10 **Vyacheslav Molchanov**, Lomonosov Moscow State University, Russia
 SUPRAMOLECULAR SYSTEMS BASED ON WORMLIKE MICELLES FOR ENHANCEMENT OF OIL
 EXTRACTION

(IL-14) 11:10-11:30 **Limin Wu**, Fudan University, China
 PREPARATION OF SOME HOLLOW COLLOIDAL SPHERES AND THEIR APPLICATIONS IN
 FUNCTIONALCOATINGS

(O-7) 11:30-11:45 **Pawatsanai Samutprasert**, Chulalongkorn University, Thailand
 ZINC OXIDE-POLYPHENOL NANOPARTICLES AND APPLICATION IN DRUG DELIVERY

11:45-12:30 Lunch

12:30-14:00 Poster Session

14:00-18:00 Excursion

18:00-21:00 Banquet

Wednesday, Nov. 4 (Hyowon Hall, Moonchang Hall A)

08:30-09:00 Registration

(Chair: Li-Jen Chen)

(PL-5) 09:00-09:40 **Toyoko Imae**, National Taiwan University of Science & Technology, Taiwan
 ADVANCED SYNTHESIS AND APPLICATION OF CARBON MATERIALS

(Chair: Inwoo Cheong)

(KL-5) 09:40-10:10 **Nanfeng Zheng**, Xiamen University, China
 SURFACE SCIENCE ON METAL NANOMATERIALS

10:10-10:30 Coffee Break

(Chair: Miho Yamauchi)

(IL-15) 10:30-10:50 **Tasuku Nakajima**, Hokkaido University, Japan
 TOUGHENING OF SOFT MATERIALS BY SACRIFICIAL BOND PRINCIPLE

- (O-8) 10:50-11:05 **Kai-Yu Yang**, National Central University, Taiwan
ELECTROCHEMICAL PROPERTIES OF ZnO-CIZS COMPOSITE THIN FILMS USING SPRAY PYROLYSIS
- (O-9) 11:05-11:20 **Ya-Ting Hsieh**, Kyushu University, Japan
EFFECT OF POLYMER GRAFTED HALLOYSITE ON CRYSTALLIZATION BEHAVIOR OF POLY(LACTIC ACID)

(Chair: Sung Soo Park)
- (IL-16) 10:30-10:50 **Li-Jen Chen**, National Taiwan University, Taiwan
EFFECT OF SURFACE HYDROPHOBICITY ON THE SELF-PINNING AND CRITICAL PINNING CONCENTRATION OF COFFEE-RING FORMATION
- (O-10) 10:50-11:05 **Ryohei Ishige**, Tokyo Institute of Technology, Japan
HIGHER ORDERED STRUCTURES AND PHASE TRANSITION BEHAVIORS OF FLUOROALKYL SIDE-CHAIN POLYMERS

(Chair: Tasuku Nakajima)
- (IL-17) 11:20-11:40 **Nguyen Vu Giang**, Vietnam Academy of Science and Technology, Vietnam
THE RELATIONSHIP BETWEEN FUSION CHARACTERISTICS AND STIFFNESS OF POLYVINYL CHLORIDE AND WOOD FLOUR COMPOSITES

(Chair: Sung Soo Park)
- (IL-18) 11:20-11:40 **Ildoo Chung**, Pusan National University, Korea
FABRICATION OF BIODEGRADABLE POROUS MICROPARTICLES BY PHOTODEGRADATION

(Chair: Ildoo Chung)
- (IL-19) 11:40-12:00 **Sung Soo Park**, Pusan National University, Korea
EFFECT OF ALKALI METAL IONS ON THE AMORPOUS TO CRYSTALLINE PHASE TRANSITION OF SILICA WALLS IN MESOPOROUS SILICA
- (O-11) 11:40-11:55 **Aleksey Vedyagin**, Boreskov Institute of Catalysis, Russia
SOLUTION COMBUSTION SYNTHESIS OF CuO-CeO₂ NANOPARTICLES FOR ENVIRONMENTAL APPLICATION
- 11:55-12:10 Closing Remark (Prof. Thai Hoang)

Poster Presentation

(Nov. 3, 12:30-14:00, Moonchang Hall B, 1F)

(PS-01) Aleksey Vedyagin, Tatyana Maksimova, Ilya Mishakov

(Boreskov Institute of Catalysis, Russia)

SOLUTION COMBUSTION SYNTHESIS OF CuO-CeO₂ NANOPARTICLES FOR ENVIRONMENTAL APPLICATION

(PS-02) Aneesh Mathew, Surendran Parambadath, Mary Jenisha Barnabas, Su Yeon Kim, Kun-Hyung, Sung

Soo Park and Chang-Sik Ha

(Pusan National University, Korea)

THE METAL ADSORPTION PROPERTY OF AMIC ACID FUNCTIONALIZED MCM-41

(PS-03) Burkova Yulia and Shchipunov Yury

(Russian Academy of Sciences, Russia)

SILVER NANOPARTICLES AND NANOCLUSTERS STABILIZED BY ALGINATE

(PS-04) Chulyeon Lee, Sungho Nam, Hyemi Han, Jaehoon Jeong, Jooyeok Seo, Woongki Lee, Hwajeong Kim, and Youngkyoo Kim

(Kyungpook National University, Korea)

ORGANIC PHOTODETECTORS WITH THERMALLY CROSSLINKED POLYMER NETWORK NANOLAYERS

(PS-05) Dan Bi Lee, Dong Hun Han, Young Min Kim, Ji Eun Lee, and Kyung Man Choi

(Korea Institute of Footwear & Leather Technology, Korea)

FABRICATION OF OIL-LOW DENSITY POLYETHYLENE BLENDS

(PS-06) Dazhi Yang, Yatao Wang, Jianhua Li

(Coal Chemical R & D Center, China)

BIOMIMETIC HEMO-COMPATIBLE SURFACES OF POLYURETHANE BY GRAFTING COPOLYMER BRUSHES OF POLY(ETHYLENE GLYCOL) AND POLY(PHOSPHORYLCHOLINE METHACRYLATE)

(PS-07) Dong-Hun Han, Myeon-Cheon Choi, Kyung-Man Choi, Han-Seong Kim

(Pusan National University, Korea)

PROPERTIES OF POLY(LACTIC ACID) (PLA)/ RUBBER BLENDS AND THEIR FOAMS

(PS-08) DongWon Kim, Dan Bi Lee, Yury Shchipunov and Chang-Sik Ha

(Pusan National University, Korea)

**PREPARATION AND PROPERTIES OF CHITOSAN/XANTHAN GUM AND GRAPHENE OXIDE
NANOCOMPOSITES FILMS**

(PS-09) Eisuke FUJIWARA, Hiroshi FUKUDOME, Ryohei ISHIGE and Shinji ANDO

(Tokyo Institute of Technology, Japan)

**DIFFERENCE IN STRUCTURAL CHANGES BETWEEN POLYIMIDES CONTAINING AMIDE AND
ESTER LINKAGES INDUCED BY VERY HIGH PRESSURE**

(PS-10) Eun Ji Park, Young Taec Kang, Ildoo Chung

(Pusan National University, Korea)

**FABRICATION AND CHARACTERIZATION OF POLYMERIC NANOCAPSULES BASED ON
COLLOIDAL SILICA**

(PS-11) Eun Ji Park, Eun Hwa Jeong, Young Taec Kang, Ildoo Chung

(Pusan National University, Korea)

**FABRICATION AND CHARACTERIZATION OF NANOHYBRIDS BASED ON SILICA FOR DENTAL
COMPOSITE RESIN RESTORATIVES**

(PS-12) Fuyun Jiang, Xiaodong Wang, Dezhen Wu

(Beijing University of Chemical Technology, China)

**DESIGN AND SYNTHESIS OF MAGNETIC MICROENCAPSULATED PHASE CHANGE MATERIALS
WITH ORGANOSILICA SHELL FOR THERMAL ENERGY STORAGE AND MICROWAVE ABSORPTION**

(PS-13) Guseong Kim, Young Taec Kang, Jaewook Jeong, Ildoo Chung

(Pusan National University, Korea)

**THERMOREVERSIBLE NANOPOROUS HOLLOW NANOSPHERES BASED ON COLLOID SILICA
TEMPLATE**

(PS-14) Guseong Kim, Taeyoon Kim, Jaewook Jeong, Ildoo Chung

(Pusan National University, Korea)

**FABRICATION AND CHARACTERIZATION OF ORGANIC CHEMICAL FOAMING AGENT
NANOPARTICLE**

(PS-15) Gyeongju Song, Young Taec Kang, Ildoo Chung

(Pusan National University, Korea)

SYNTHESIS AND CHARACTERIZATION OF THERMORESPONSIVE POLYMERIC HOLLOW NANOPARTICLES

(PS-16) Hak Yong Lee, Yeong Woo Kim, Bong Lee, Chan-Young Park, Won-Ki Lee

(Pukyong National University, Korea)

CONTROL OF BIODEGRADABILITY OF PLLA BY BLENDING WITH PDLA-PFPE-PDLA TRIBLOCK POLYMERS

(PS-17) Hak Yong Lee, Yeong Woo Kim, Eunyoung Kim, Won-Ki Lee

(Pukyong National University, Korea)

PROPERTIES OF URETHANE/EPOXY COPOLYMER BASED ON ACRYLATE STRUCTURES

(PS-18) Hwajeong Kim, Sungho Nam, Jooyeok Seo, Jaehoon Jeong, Sooyong Lee, Hyemi Han, Chulyeon Lee,

Myeonghun Song, Woongki Lee, Jeongnam Kim, Hyena Lee, Youngkyoo Kim

(Kyungpook National University, Korea)

IMPROVED STABILITY IN POLYMER SOLAR CELLS VIA CHEMICAL TREATMENT FOR HOLE-COLLECTING BUFFER LAYERS

(PS-19) Hyemi Han, Jooyeok Seo, Jaehoon Jeong, Chulyeon Lee, Myeonghun Song, Sooyong Lee, Hwajeong

Kim, Youngkyoo Kim

(Kyungpook National University, Korea)

CONJUGATED POLYMERS WITH THIOPHENE AND BENZOTHIADIAZOLE UNITS FOR ALL-POLYMER BULK HETEROJUNCTION DEVICES

(PS-20) Hyeok-Gi Lee, Pradip Kumar Tapaswi, Keuk-Min Jeong, Yu-Heng Li, Chang-Sik Ha

(Pusan National University, Korea)

SYNTHESIS AND CHARACTERIZATION OF NEW DIAMINE MONOMER WITH HIGH THERMAL AND OPTICAL PROPERTIES

(PS-21) Hyun-Cheol Ko, Dae-Hee Kim, Hyun Park, In-Won Lee, Ho-Hwan Chun and Nam-Ju Jo

(Pusan National University, Korea)

SELF-POLISHING BEHAVIOR OF TRIBLOCK COPOLYMER WITH POLYURETHANE AND TERT-BUTYLDIMETHYLSILYL METHACRYLATE USING RAFT POLYMERIZATION

(PS-22) Aneesh Mathew, Hyung-Min Ha, Sung Soo Park, Chang-Sik Ha

(Pusan National University, Korea)

FACILE, LARGE-SCALE SYNTHESIS OF MESOPOROUS SILICA NANOCONTAINERS FOR HIGHLY SELECTIVE RECOVERY OF METAL IONS FROM SEAWATER

(PS-23) Iliia Martakov, Mikhail Torlopov, Pavel Krivoshapkin, Vasiliy Mikhaylov

(Institute of Chemistry of Komi SC UB RAS, Russia)

PREPARATION OF (NANOCRYSTALLINE CELLULOSE)-BASED HYBRID ORGANIC-INORGANIC COMPOSITES: FUNDAMENTAL ASPECTS

(PS-24) Jaehoon Jeong, Jooyeok Seo, Hyemi Han, Sooyong Lee, Chulyeon Lee, Myeonghun Song, Woongki

Lee, Hwajeong Kim, Youngkyoo Kim

(Kyungpook National University, Korea)

ORGANIC/INORGANIC BILAYER STRUCTURES FOR HYBRID PHOTODETECTORS – DETECTION FROM UV TO VISIBLE LIGHTS

(PS-25) Jaesung Kim, Kun Hyung Park, Sung Su Park and Chang-Sik Ha

(Pusan National University, Korea)

AMINO BENZENE - MODIFIED MESOPOROUS SILICA FOR VOCs ADSORBENT

(PS-26) Jandos Ukibayev, Yessen Dilmukhambetov, Sergey Fomenko

(Kazakh National Agrarian University, Kazakhstan)

HETEROCOAGULATION OF SILICA SOLS ON THE SURFACE OF ALUMINUM OXIDE, SILICON OXIDE AND ALUMINUM SILICATE

(PS-27) Jeong-min Lee, Ji-seung Kim, Nam-Ju Jo

(Pusan National University, Korea)

IONIC CONDUCTIVITY ACCORDING TO CHEMICAL STRUCTURE OF POLY(ALKYLENE CARBONATE) ELECTROLYTE

(P-28) Jeong-Seon Ha, Ye-Ji Jung, Nam-Ju Jo

(Pusan National University, Korea)

PREPARATION AND CHARACTERIZATION OF SOLID POLYMER ELECTROLYTE USING PEO-B-PPO-B-PEO COPOLYMER

(PS-29) Jianhua Li, Yatao Wang, Dazhi yang

(Coal Chemical R & D Center, China)

NOVEL SYNTHESIS OF CARBON BLACK THROUGH PLASMA CATALYZED CONVERSION WITH THE OVEN GASES FROM COAL GASIFICATION

(PS-30) Jin Hyok Lee, Jong Woo Bae, Jung Su Kim, Sung Do Park, Sung Han Park, Nam-Ju Jo

(Korea Institute of Footwear and Leather Technology, Korea)

STUDY ON INTERFACE AND LOW TEMPERATURE SEALING CAPABILITY OF THERMALLY AGED CR O-RING

(PS-31) Ji-Won Lee, Si-Young Kim, Nam-Ju Jo

(Pusan National University, Korea)

WATERSOLUBLE POLYURETHANE AND POLYETHYLENE-GRAFT-ACRYLIC ACID BLEND RESIN WITH ANTI-CORROSION PROPERTY

(PS-32) Jooung Hyun Jo, Hyun Park, In-Won Lee, Ho-Hwan Chun and Nam-Ju Jo

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PREPARATION OF FOULING RELEASE COATING BASED ON POLYURETHANE AND POLYDIMETHYLSILOXANE TRIBLOCK COPOLYMER

(PS-33) Jooyeok Seo, Myeonghun Song, Jaehoon Jeong, Chulyeon Lee, Hyemi Han, Sooyong Lee, Hwajeong

Kim, Youngkyoo Kim

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LIQUID CRYSTAL-INTEGRATED-ORGANIC TRANSISTOR PLATFORMS FOR ARTIFICIAL SKIN APPLICATIONS

(PS-34) Jung-Mi Cheon, Jae-Hwan Chun, Boo-Young Jeong, Young-Hee Lee, Han-Do Kim

(Korea Institute of Footwear and Leather Technology, Korea)

SYNTHESIS AND CHARACTERIZATION OF ADHESIVE LIQUID RESIN TO A FOAM

(PS-35) Keuk-Min Jeong, Yu-Heng Li, Chang-Sik Ha

(Pusan National University, Korea)

PREPARATION AND CHARACTERIZATION OF POLYIMIDE/SILICA HYBRID FILMS

(P-36) Kummara Madhusudana Rao, Yang Hyun Yun and Chang-Sik Ha

(Pusan National University, Korea)

**PH AND REDUCTION TRIGGERED POLY(HISTIDINE) COATED MESOPOROUS SILICA
NANOPARTICLES FOR TARGETED DELIVERY SYSTEM OF CURCUMIN**

(PS-37) Kyung Seok Jeong, Teak Sung Hwang

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**SYNTHESIS OF AN AMINATED POLY(VINYLDENE FLURIDE-G-4-VINYL BENZYL CHLORIDE)
ANION EXCHANGE MEMBRANE FOR MEMBRANE CAPACITIVE DEIONIZATION(MCDI) AND
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(PS-38) Min Ho Jeong, Teak Sung Hwang

(Chungnam National University, Korea)

**PROCESS DESIGN FOR LITHIUM RECOVERY BY USING BIPOLAR MEMBRANE
ELECTRODIALYSIS SYSTEM**

(PS-39) Kun Hyung Park, Sung Soo Park, and Chang-Sik Ha

(Pusan National University, Korea)

**A REDOX-RESPONSIVE DRUG DELIVERY SYSTEM BASED ON THE FUNCTIONALIZED
BIOPOLYMER COATED MESOPOROUS SILICA NANOPARTICLES**

(PS-40) M. Santha Moorthy and Chang-Sik Ha

(Pusan National University, Korea)

PH-RESPONSIVE MESOPOROUS SILICA MATERIALS FOR DRUG DELIVERY APPLICATION

(PS-41) Maria N. Timofeeva, Valentina N. Panchenko, Anna A. Abel, Zubair Hasan, Viktor L. Kirillov, Konstantin

P. Volcho, Oleg N. Martyanov, Sung Hwa Jhung

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**EFFECT OF STRUCTURE AND ACIDITY OF ACID MODIFIED CLAY MATERIALS ON
SYNTHESIS OF OCTAHYDRO-2H-CHROMEN-4-OL FROM VANILLIN AND ISOPULEGOL**

(PS-42) Mary Jenisha Barnabas, Surendran Parambadath, Aneesh Mathew, Sung Soo Park and Chang-Sik Ha

(Pusan National University, Korea)

**ADSORPTION BEHAVIOR OF IN³⁺ ON ZN/AL LAYERED DOUBLE HYDROXIDE (ZN/AL-LDH) FROM
AQUEOUS SOLUTION**

(PS-43) Mijeong Han, Ki Woo Kim

(Korea Research Institute of Chemical Technology, Korea)

PREPARATION OF ANTI-CORROSIVE WATERBORNE POLYURETHANES FOR SURFACE TREATMENT AGENT OF GALVANIZED STEEL

(PS-44) Mijeong Han, Jihye Park, Jungdon Suk, Yongku Kang

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POLYIMIDES AS BINDERS FOR LITHIUM AND SODIUM ION BATTERIES WITH IMPROVED ELECTRICAL PERFORMANCES

(PS-45) Myeonghun Song, Sungho Nam, Sooyong Lee, Jaehoon Jeong, Jooyeok Seo, Hwajeong Kim, Youngkyoo Kim

(Kyungpook National University, Korea)

OPTICALLY-STIMULATED MORPHOLOGY CHANGES IN TERNARY POLYMER SOLAR CELLS: (L) OPEN CIRCUIT VOLTAGE INCREASE

(PS-46) Oleg Khlebnikov, Yury Shchipunov

(Russian Academy of Sciences, Russia)

BIONANOCOMPOSITES OF CELLULOSE WITH SILICA PREPARED THROUGH SOLUBILIZATION AND SOL-GEL TRANSITION

(PS-47) J. Pérez-Carvajal, P. Aranda, S. Obregón, G. Colón, E. Ruiz-Hitzky

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CLAY-BASED NANOSTRUCTURED MATERIALS CONTAINING ANATASE AND NOBLE METAL NANOPARTICLES FOR PHOTOCATALYTIC HYDROGEN PRODUCTION

(PS-48) Sae-Mi Park, Hye-hyun Kim and Nam-Ju Jo

(Pusan National University, Korea)

THERMAL AND OPTICAL PERFORMANCE OF GLASS CLOTH REINFORCED ORGANIC-INORGANIC HYBRID POLYMER SUBSTRATE

(PS-49) Sangdae Lee, Kihyun Kim, Seok-Hwan Lim, Dong-Hoon Lee, Noori Lee and Wonho Kim

(Pusan National University, Korea)

EFFECT OF CARBON FIBER AND CARBON NANOTUBE ON THE PROPERTIES OF SIDEWALL REINFORCING LAYER COMPOUNDS OF RUN-FLAT TIRE

(PS-50) Sangdae Lee, Kihyun Kim, Seok-Hwan Lim, Dong-Hoon Lee, Noori Lee and Wonho Kim
(Pusan National University, Korea)

**EFFECT OF PHENOLIC RESINS ON THE PROPERTIES OF SIDEWALL INSERT REINFORCING
LAYER COMPOUNDS OF RUN-FLAT TIRE**

(PS-51) Sangho Kang, Young Taec Kang, Dong Pil Kang, Ildoo Chung
(Pusan National University, Korea)

**UV-CURABLE URETHANE ACRYLATE/SILICA HYBRID COATING: INTRODUCING MODIFIED
SILANE USING URETHANE REACTION**

(PS-52) Saravanan Nagappan, Chang-Sik Ha
(Pusan National University, Korea)

SUPERHYDROPHOBIC HYBRID MICRO-NANOCOMPOSITES AND ITS APPLICATIONS

(PS-53) Seok-Hwan Lim, Kihyun Kim, Sangdae Lee, Dong-Hoon Lee, Noori Lee, Nam Park and Wonho Kim
(Pusan National University, Korea)

**EVALUATION OF CURE SYSTEM FOR SSBR-SILICA COMPOUNDS TO IMPROVE TIRE
PERFORMANCE**

(PS-54) Seok-Hwan Lim, Kihyun Kim, Sangdae Lee, Dong-Hoon Lee, Noori Lee, Nam Park and Wonho Kim
(Pusan National University, Korea)

**EVALUATION OF CROSSLINK DENSITY AND SULFUR STRUCTURE FOR NR COMPOUNDS AND
SSBR-SILICA COMPOUNDS**

(PS-55) Soo Yong Park, K. Madhusudana Rao, Eun Hyun Jeong, Young Mi Jung, Yang H.Yun, Ildoo Chung
(Pusan National University, Korea)

DNA DELIVERY BY NANOPARTICLE BASED ON L-TYROSINE POLYURETHANES

(PS-56) Sooyong Lee, Jooyeok Seo, Jaehoon Jeong, Hyemi Han, Chulyeon Lee, Myeonghun Song, Woongki Lee, Jeongnam Kim, Hwajeong Kim, Youngkyoo Kim
(Kyungpook National University, Korea)

**MICROSTRUCTURED ORGANIC BULK HETEROJUNCTION LAYERS FOR ROLL-TO-ROLL
PROCESSABLE ORGANIC SOLAR CELLS**

(PS-57) Sorim Lee, Taeyoon Kim, Ildoo Chung

(Pusan National University, Korea)

**SYNTHESIS OF 4-ARM PCL-B-PLA-B-PMVK TRIBLOCK COPOLYMER AS BIODEGRADABLE
MICROPARTICLES BY RAFT POLYMERIZATION**

(PS-58) Su Yeon Kim, M. Santha Moorthy, Sung Soo Park and Chang-Sik Ha

(Pusan National University, Korea)

**SYNTHESIS AND CHARACTERIZATION OF MODIFIED SBA-15 MESOPOROUS SILICA MATERIALS
FOR METAL IONS ADSORPTION IN ARTIFICIAL WASTEWATER AND SEAWATER**

(PS-59) Sung-Wook Lim, Myeon-Cheon Choi, Tae-Sung Park, Chang-Sik Ha

(Pusan National University, Korea)

**TOUGHNESS ENHANCEMENT OF POLY(LACTIC ACID)(PLA) BY REACTIVE BLENDING WITH
POLYBUTADIENE RUBBER (BR)**

(PS-60) Surendran Parambadath, Aneesh Mathew, Su Yeon Kim, Sung Soo Park, and Chang-Sik Ha

(Pusan National University, Korea)

**FE(III)-BIS-ETHYLENEDIAMINE COMPLEX BRIDGED PERIODIC MESOPOROUS ORGANOSILICA
FOR THE EFFICIENT REMOVAL OF ARSENATE AND CHROMATE IN WATER**

(PS-61) Taeyoon Kim, Giyoung Park, Ildoo Chung

(Pusan National University, Korea)

GLASS-IONOMER CEMENTS USING MODIFIED CYCLODEXTRINS

(PS-62) Taeyoon Kim, Ildoo Chung

(Pusan National University, Korea)

**PREPARATION AND CHARACTERIZATION OF DISK-SHAPED MICROPARTICLES BY RAFT
POLYMERIZATION**

(PS-63) Takehiko Kambara, Kenta Kanosue, Ryohei Ishige, Shinji Ando

(Tokyo Institute of Technology, Japan)

**OPTICAL ABSORPTION AND FLUORESCENCE PROPERTIES OF N-CYCLOHEXYLPHTHALIMIDES
SUBSTITUTED WITH ACYLAMINO GROUPS**

(PS-64) Tepei Chino, Syo Fukuchi, Kazuhiro Takizawa, Shigeo Asai, Ryohei Ishige, and Shinji Ando

(Tokyo Institute of Technology, Japan)

CORRELATION BETWEEN DARK-CURRENT AND LIGHT ABSORPTION OF POLYIMIDES HAVING A TPA STRUCTURE

(PS-65) Nguyen Thuy Chinh, Nguyen Thi Thu Trang, Nguyen Vu Giang, DinhThi Mai Thanh, To Thi Xuan Hang, Thai Hoang

(Vietnam Academy of Science and Technology, Vietnam)

PREPARATION, CHARACTERIZATION, PROPERTIES AND MORPHOLOGY OF POLY(LACTIC ACID)/CHITOSAN NANOPARTICLES LOADING NIFEDIPINE

(PS-66) Toshiaki Masuda, Yukiko Kozaki, Ryohei Ishige, Shinji Ando

(Tokyo Institute of Technology, Japan)

THERMAL EXPANSION BEHAVIORS OF POLYIMIDES ANALYZED BY VARIABLE TEMPERATURE WIDE ANGLE X-RAY DIFFRACTION

(PS-67) Yanhua Jiang, Zhongkai Hu, Lei Zu, You Zhang, Huiqin Lian, Xiuguo Cui

(Beijing Institute of Petrochemical Technology, China)

MESOPOROUS MANGNESE DIOXIDE BASED COMPOSITE ELETRODE IN KI ELECTROLYTES FOR SUPERCAPACITOR

(PS-68) Yatao Wang, Xiaodong Wang, Dezhen Wu

(Beijing University of Chemical Technology, China)

COMPARATIVE INVESTIGATION ON MECHANICAL PROPERTIES, MICROSTRUCTURE AND TRIBOLOGICAL BEHAVIORS OF POLYOXYMETHYLENE/BASALT FIBER COMPOSITES THROUGH SHORT-FIBER COMPOUNDING AND LONG-FIBER PULTRUSION

(PS-69) Yeong Woo Kim, Hak Yong Lee, Eunyoung Kim, Won-Ki Lee

(Pukyong National University, Korea)

PROPERTIES OF UV-CURABLE POLYURETHANE ACRYLATES SYNTHESIZED BASED ON PLA AND PEG

(PS-70) Yeong Woo Kim, Hak Yong Lee, Won-Ki Lee

(Pukyong National University, Korea)

SYNTHESIS AND CHARACTERIZATION OF BIODEGRADABLE BLOCK COPOLYMERS FROM L, D-LACTIDE AND POLY(ETHYLENE CARBONATE)

(PS-71) Young-Min Kim, Jae-Hoon Jeong, Eun-Ji Park, Kyung-Man Choi, Ji-Eun Lee, and Ildoo Chung

(Korea Institute of Footwear and Leather Technology, Korea)

**PROPERTIES OF HYDROPHOBICALLY-MODIFIED GRAPHENE OXIDE (HGO)/BUTYL RUBBER (IIR)
NANOCOMPOSITES PREPARED BY SHEAR MIXING PROCESS**

(PS-72) Yuheng Li, Myeon-Cheon Choi, Keuk-min Jeong and Chang-Sik Ha

(Pusan National University, Korea)

TRANSPARENT AND FLEXIBLE POLYIMIDE-GRAPHENE THIN FILM WITH BARRIER PROPERTY

(PS-73) Kanjana Kunpatee, Suchada Chuanuwatanakul

(Chulalongkorn University, Thailand)

**METHOD DEVELOPMENT FOR DETERMINATION OF ASCORBIC ACID, DOPAMINE AND URIC
ACID USING GRAPHENE QUANTUM DOTS/IONIC LIQUID-MODIFIED SCREEN PRINTED CARBON
ELECTRODE**

(PS-74) Prasongporn Ruengpirasiri, Orawon Chailapakul, Suchada Chuanuwatanakul

(Chulalongkorn University, Thailand)

**METHOD DEVELOPMENT FOR SIMULTANEOUS DETERMINATION OF TRACE HEAVY METALS BY
SEQUENTIAL INJECTION-ANODIC STRIPPING VOLTAMMETRY USING ANTIMONY-GRAPHENE
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