Proceedings of ICMMA 2014

The 8th International Conference on Multi-functional Materials and Applications

27 - 29 November 2014

Organized by Hoseo University, Chungnam, Korea

- Department of Chemical Engineering
- University for Creative Korea (CK-1) Program

Table of Content

Conference Agenda

November 27 - 29, 2014, P;ace : Hoseo University CANDO Building, Korea

Date	Time	Program	Place
Nov. 27,2014 (Thursday)	18:00 – 20:00	Welcome Reception	Dmaris, Cheonan
	20:00 – 21:00	Conference Committee Board Meeting (for ICMMA2015)	Dmaris, Cheonan
Nov. 28,2014 (Friday)	08:50~09:20	Opening Ceremony	CANDO BLD 2nd Floor, International Conference Room, Hoseo University
	09:20~09:40	Group Photo	
	09:40~10:40	Invited Lecture	
	10:40~11:00	Coffee Break	
	11:00~12:00	Special Lecture	
	12:00~13:30	Lunch	Faculty Cafeteria (16th Bld)
	13:30~14:40	Afternoon Session 1	CANDO BLD 2nd Floor, International Conference Room, Hoseo University
	14:40~15:00	Coffee Break	
	15:00~17:00	Afternoon Session 2	
	17:00~18:00	Poster Session	
	18:00~20:00	Banquet	Faculty Cafeteria (16th Bld)
Nov. 28,2014 (Friday)	09:00~16:00	Conference Tour SUWON HWASEONG (水原华城) SEOUL Korean Folk Village (北村 韓屋 Village) SEOUL Namsan (南山)/ SEOUL Myungdong (明洞)	SUWON & SEOUL

Conference Program

November 27 (Thursday), 2014

12:00-18:00	Onsite Registration
18:00-20:00	Welcome Reception
20:00-	Conference Committee Board Meeting (for ICMMA2015)

November 28 (Friday), 2014

08:30~	Onsite Registration
08:50-09:40	Opening Ceremony (Hoseo University, Korea) - Opening address by Prof. Dr. Heon Chang Kim - Address by distinguished guests (Prof. Dr. Won-Chun Oh, Prof. Dr. Zigang Chen) - Award of appreciation (plaque to Prof. Dr. Mingxu Zhang) - The conference chairman announces ICMMA 2014 begins
09:40-10:10	Invited Lecture 1 (Chairman : Prof. Dr. Heon Chang Kim) Prof. Dr. John Oh (Canada, Concordia University) **Stimuli-responsive degradation: a versatile platform in development of biomedical materials**
10:10-10:40	Invited Lecture 2 (Chairman : Prof. Dr. Heon Chang Kim) Prof. Dr. Ram K. Agarwal (C C S University), (Editor-in-Chief, AJC) **Synthesis, spectral, thermal and biological studies on some mixed ligand complexes of lanthanides (III) derived from 4[N (2',4'-dimethylbenzalidene) amino]antipyrine semicarbazone and Triphenyl phosphine oxide**
10:40-11:00	Coffee break
Session A-1 (11:00-12:00) (Session Chairman : Prof. Dr. Won-Chun Oh)	
11:00-11:30	Special Lecture 1 Prof. Dr. Xiangke Wang (Institute of Plasma Physics, Chinese Academy of Sciences , China) **Preparation of carbon nanomaterials and their application in environmental pollution cleanup** **Photon upconversion: from two-photon absorption at high power density to triplet-triplet annihilation at low power intensity**
11:30-12:00	Special Lecture 2 Prof. Chen-Hao Wang (Dept. of MSE, NTUST , Taiwan) **Fe-based and Co-based Catalysts for PEM Fuel Cell** Efficiency of CO2 Decomposition by Catalytic Thermal Plasma
Session A-2 (11:00-12:00) (Session Chairman : Prof. Dr. John Oh)	
11:00-11:30	Special Lecture 3 Prof. Dr. Jong-Sung Yu (Korea) (Korea UNIVERSITY, Sejong) **Synthesis of iodine-treated heteroatom-doped carbon: Surface properties and electrocatalytic activity in fuel cell**

11:30-12:00	Special Lecture 4 Prof. Dr. Teruoki TAGO (Hokkaido University, Japan) **Catalytic cracking of naphtha representatives over ZSM-5 zeolite: Effect of crystal size on the catalytic activity and stability**
Lunch (12:00-13:30)	
Session B-1 (13:30-14:50) (Session Chairman : Prof. Choyang Xu, Prof. Daewoo Ihm)	
13:30-14:00	Special Lecture 5 Prof. Dr. Linrui Hou (Anhui University of Technology, China) **Interfacial platform to design and construct smart materials towards photocatalysis and energy storage applications**
14:00-14:20	Oral Lecture 1, Prof. Dr. Xiaomei Wang (Suzhou University of Science and Technology, China) **Photon upconversion: from two-photon absorption at high power density to triplet-triplet annihilation at low power intensity**
14:20-14:40	Oral Lecture 2, Prof. Dr. Jeong-Tae Kwon (Hoseo University, Korea) **The Effects of Corrosion on the Performance of Heat Exchangers Using Deep Ocean Water**
Session B-2 (13:30-14:40) **(Session Chairman : Prof. Teruoki TAGO, Prof. Xiangke Wang)**	
13:30-14:00	Special Lecture 6, Prof. Dr. Taro Kinumoto (Oita University, Japan) **Development of Active and Durable Oxygen Reduction Reaction Electrode catalyst by Surface Modification of Carbon Materials for Electrochemical Power Sources**
14:00-14:20	Oral Lecture 3, Mr. Shincheol Kang (Hoseo university, Korea) **Basic Characteristics of Lighting Equipment using the Ag Nano-Coating of Direct Spray**
14:20-14:40	Oral Lecture 4, Mr. Kefayat Ullah (Hanseo University, Korea) **Microwave synthesis of graphene based cobalt selenide and its photocatalytic study for the decolorization of Rh.B dye**
14:40-15:00 Coffee break	
Session C (15:00-16:30) (Session Chairman : Prof. M. Toyada, Prof. Saksit Chanthai)	
15:00-15:30	Special Lecture 7, Prof. Dr. Saksit Chanthai (Khon Kaen University, Thailand) **Adsorption of Functionalized Thiol-Graphene Oxide for the Removal of Mercury from Aqueous Solution**
15:30-16:00	Special Lecture 8, Dr. Doo-Hwan Jung (Korea Institute of Energy Research (KIER), Korea) **Pore size effect on the performance of CDI electrode**
16:00-16:20	Oral Lecture 5, Dr. Donglin Zhao (Anhui Jianzhu University, Chia) **Application of kinetic models for the adsorption of Cu (II) on graphene/iron oxides composite from aqueous solution**
16:20-16:40	Oral Lecture 6, Mr. Joon-Yop Lee (Kyungbook National University, Korea) **Photocatalysis of Gaseous Pollutants Using Titania Nanotube**
Session D (15:00-16:30) (Session Chairman : Prof. Ming Ding, Prof. KaeKyu Lim)	
15:00-15:30	Special Lecture 9, Prof. Dr. He Gang (China) (ANHUI UNIVERSITY)

	Interface control and modification of band alignment and electrical properties of HfTiO/GaAs gate stacks by nitrogen incorporation
15:30-15:50	Oral Lecture 7, Dr. In-Ho Yoon (Korea Atomic Energy Research Institute, Korea) **Effect of silica nanoparticles for stability and structures of decontamination foam**
15:50-16:10	Oral Lecture 8, Mr. Jun Li (Inha University, Korea) **Fast prediction of comprehensive molecular properties**
16:10-16:30	Oral Lecture 9, Dr. Chang-Yeoul Kim (Korea Institute of Ceramic Engineering & Technology) **Low Temperature Synthesis of Flouorine-Doped Tin Oxide Transparent Conducting Thin Film by Spray Pyrolysis Deposition**
16:40-17:00 Coffee break	
Poster Session (17:00-18:00) (Session Chairman : Prof. Seung Kyu Park, Prof. Taro Kinumoto)	
Banquet (18:00 ~)	
18:00-20:00	Closing Remark **(Prof. Dr. Kaekyu Lim)**

November 29 (Saturday)

Conference Tour (8:30 ~)

Opening address: Prof. Heon Chang Kim, Hoseo University, Korea

Invited Lectures

01-IL Stimuli-responsive degradation: a versatile platform in development of biomedical materials. *John Oh*

02-IL Synthesis, spectral, thermal and biological studies on some mixed ligand complexes of lanthanides (III) derived from 4[N (2',4'-dimethylbenzalidene) amino]antipyrine semicarbazone and Triphenyl phosphine oxide. *Ram K.Agarwal*

Special Lectures

01-SL Preparation of carbon nanomaterials and their application in environmental pollution cleanup. *Xiangke Wang*

02-SL Fe-based and Co-based Catalysts for PEM Fuel Cell. *Chen-Hao Wang*

03-SL Synthesis of iodine-treated heteroatom-doped carbon: Surface properties and electrocatalytic activity in fuel cell. *Kiran Pal Singh, Min Young Song, Eunjin Bae, Jong-Sung Yu*

04-SL. Catalytic cracking of naphtha representatives over ZSM-5 zeolite: Effect of crystal size on the catalytic activity and stability. *Teruoki TAGO, Yuta NAKASAKA, Takao MASUDA*

05-SL. Interfacial platform to design and construct smart materials towards photocatalysis and energy storage applications. *Linrui Hou*

06-SL. Development of Active and Durable Oxygen Reduction Reaction Electrode catalyst by Surface Modification of Carbon Materials for Electrochemical Power Sources. *Taro Kinumoto*

07-SL Adsorption of Functionalized Thiol-Graphene Oxide for the Removal of Mercury from Aqueous Solution. *Saksit Chanthai*

08-SL. Pore size effect on the performance of CDI electrode. *Doo-Hwan Jung, Jiyoung Kim*

09-SL. Interface control and modification of band alignment and electrical properties of HfTiO/GaAs gate stacks by nitrogen incorporation. *Gang He, Hanshuang Chen, Yanmei Liu, Zhaoqi Sun*

Oral Lectures

01-OL. Photon upconversion: from two-photon absorption at high power density to triplet-triplet annihilation at low power intensity. *Xiaomei Wang*

02-OL. The Effects of Corrosion on the Performance of Heat Exchangers Using Deep Ocean Water. *Hyun-Min Kwon, Jeong-Tae Kwon*, Young Chul Kwon, Cheol Huh*

03-OL. Basic Characteristics of Lighting Equipment using the Ag Nano-Coating of Direct Spray. *JINDO CHUNG, SEUNGMIN HWANG, Shincheol Kang*

04-OL. Microwave synthesis of graphene based cobalt selenide and its photocatalytic study for the decolorization of Rh.B dye. *Kefayat Ullah, Asghar Ali, Shu Ye, Zhu Lei, Won-Chun Oh*

05-OL. Application of kinetic models for the adsorption of Cu (II) on graphene/iron oxides composite from aqueous solution. *Donglin Zhao*

06-OL. Photocatalysis of Gaseous Pollutants Using Titania Nanotube. *Jong-Dae Baek, Seung-Ho Shin, Joon Yeob Lee, Mo-Keun Kim, Seoung-Lak Choi, Seong-Young Lee, Wan-Kuen Jo*

07-OL. Effect of silica nanoparticles for stability and structures of decontamination foam. *In-Ho Yoon, Chong-Hun Jung, Suk Bon Yoon, Chorong Kim, Seonbyeong Kim, Han Beom Yang, Jei-Kwon Moon, Wang-Kyu Choi*

08-OL. Fast and comprehensive prediction of molecular properties. *Jun Li, Byung Ho Park, Fang Mei, Chan Kyung Kim*

09-OL. Low Temperature Synthesis of Flouorine-Doped Tin Oxide Transparent Conducting Thin Film by Spray Pyrolysis Deposition. *Jae-Seok Choi, Hyunsung Jung, Chang-Yeoul Kim*

Poster Presentations

01-P. Application of Electro-spinned TiO_2-Carbon Nanomaterials for Decomposition of Toxic vapors. *Ho-Hwan Chun1, Wan-Kuen Jo**

02-P. $BiFeO_3$ and $BiFeO_3$-Based Multiferroic Materials. *Chen Chen, Yin Liu*, Chuanchuang Wang, Yanyan Zhu*

03-P. PANI-Titania Composite for Degradation of Ammonia Gas *Sung-Bong Yang, Mee-Seon Yu, Wan-Kuen Jo**

04-P. Microwave-Modified Sol-Gel Preparation of $CaLa_2(MoO_4)_4:Er^{3+}/Yb^{3+}$ Upconversion Phosphors and The Crystal Structure Refinement. *Victor Atuchin. Maxim Molokeev, Ji Myung Jang, Yong Woo Yoon, Dong Min Won, Lei Zhu, Chang Sung Lim**

05-P. Crystal Structure Refinement and Upconversion Properties of $CaGd_2(MoO_4)_4$: Er^{3+}/Yb^{3+} Particles Synthesized by The Microwave-Modified Sol-Gel Method. *Victor Atuchin, Maxim Molokeev, Ji Myung Jang, Yong Woo Yoon, Dong Min Won, Lei Zhu, Chang Sung Lim**

06-P. Microwave-Assisted Sol-Gel Process of $KGd(WO_4)_2:Ho^{3+}/Yb^{3+}$ Phosphors and Their Upconversion Photoluminescence Properties. *CHANG SUNG LIM*

07-P. Upconversion Properties of $NaLa(WO_4)_2:Ho^{3+}/Yb^{3+}$ Phoshors Synthesized via The Microwave-Modified Sol-Gel Route. *CHANG SUNG LIM*

08-P. Synthesis of $LiLa(MoO_4)_2:Eu^{+}/Yb^{3+}$ Phosphors via The Microwave-Assisted Sol-Gel Route and Their Upconversion Photoluminescence Properties. *CHANG SUNG LIM*

09-P. Compounds and Non-traditional Materials with Specific Bioactivity for Protection of Human and Cultural Heritage. *N. Lekishvili, Kh. Barbakadze, N. Kokiashvili, Rus. Gigauri*

10-P. Durability Properties Evaluation by Binder Composition of Combined Deterioration Concrete such as Carbonation and Salt Damage. *Young Bong Kim, Gyu Yong Kim, Dong Cheon Park*

11-P. Heat Sink for LED designs and enhanced Properties using meal modified expanded griphite. *Lei Zhu, Sun-Bok Jo, Shu Ye, Kefayat ,Won-Chun Oh*

12-P. Preparation and performance of hydrophobic flame retardant polyurethane elastomer. *Wenzong Xu, Zhuting Nie, Shaoqing Wang, Yuan Hu**

13-P. Preparation of Microencapsulated Ammonium Polyphosphate and Its Flame Retardance in Polypropylene. *Wenzong Xu, Pengcheng Wang, Shaoqing Wang*

14-P. Microwave-assisted Synthesize of Pd/Graphene Nanocomposites and their Application for H_2 Evolution. *Shu Ye, Kefayat Ullah, Lei Zhu, Sun Bok Jo, Won-Chun. Oh**

15-P. Scientometric Analysis of Nano Anodic Materials for Secondary Batteries. *Dae-Hyun Jeong, Sang-Woo Kim, Jong-Heon Kim, Soo-Woo Nam, Sang-Cheol Kil*

16-P. Demetallization by MCM-41 from Asphalten of Vacuum Residual Oils : Analysis by UV-Visible Spectrophotometer. *Heon Chang Kim, Won Jae Jeong, Who Chul Lee, Seung Kyu Park**

17-P. Preparation and activation mechanism of rice husk based mesoporous carbon. *Guihua Hou, Guangzhao Xue, Lu Yue, Qinfang Zhang*

18-P. Study on Straw Micron Pores Encapsulating Paraffin and the Performance of Its Shape-stabilized Phase Change Materials. *Guihua Hou*, Yuanman Ni, Yali Wan, Entian Cui, Qinfang Zhang, Huajun Zhu, Hailin Chen, Minggong Chen*

19-P. Hydrothermal method synthesis Ag_2Se-graphene nanocomposite with enhanced sonophotocatalytic properties. *Lei Zhu, Won-Chun Oh*

20-P. Effects of mineral activators on the hydration properties of a ternary, low-heat blended cement with abundant Ground Granulated Blast-furnace Slag. *Gyu Yong Kim, Sung Woo Choi, Deuk-Hyun Ryu*

21-P. The Melting Effect of Fiber to prevent spalling on High Strength Concrete. *Taegyu Lee, GyuyongKim, Gyeong Choel Choe, Yeonwoo Kang*

22-P. Time-Dependent Behavior Analysis of expansive concrete. *Hyeonggil CHOI, Myungkwan LIM, Takafumi NOGUCHI, Ryoma KITAGAKI*

23-P. BASIC PHYSICAL AND THERMAL PROPERTIES OF PCM-LIGHT-WEIGHT CONCRETE. *Myungkwan LIM, Hyeonggil CHOI, Enkhbold Odontuya, Donguk Choi*

24-P. First-principles study of intrinsic defects on bulk $SrTiO_2$. *Xiaoqiu Wang, Baoling Wang, Qinfang Zhang**

25-P. A Study of a Misalign Corrector Effect on the Electron Beam Trajectories. *DAE-WOOK KIM, HO-SEOB KIM, SEUNGJOON AHN, YOUNGCHUL KIM**

26-P. Prediction of gas phase heats of formation using simple methods. *Jun Li and Chan Kyung Kim**

27-P. Spectral Variation with the Sampling Frequency in the Fourier Transform of the Interferogram. *Ju Yong Cho, Hyun Kyu Park, Min Seok Ji, Won Kweon Jang*

28-P. Data Spacing Criterion for the Static Modulated Fourier Transform Infrared Spectrometer. *Ju Yong Cho, Hyun Kyu Park, Min Seok Ji, Won Kweon Jang*

29-P. Mechanism of Droplet Formation and Effect of Ink Properties in Shear-type Piezoelectric Inkjet Printhead. *Kyoungwoo Park*, Chol-Ho Hong, and Gildong Kim*

30-P. Geometrically Modified Einzel Lens for a Large Scan Range. *HO-SEOB KIM, DAE-WOOK KIM, SEUNGJOON AHN, YOUNGCHUL KIM*

31-P. Solidification Behavior of High-Density Polyethylene during Injection Molding (IM): Correlation between Crystallization Kinetics and Thermal Gradient Field. *Bin Yang, Gui-jing Li, Ru Xia, Jiasheng Qian, Peng Chen, Guojun Cheng*

32-P. Damage Evaluation of Aramid Fiber Reinforced Cement Composites by High Velocity Impact. *Jeong Soo Nam, Gyu Yong Kim, Hong Seop Kim, Joong Kyu Jeon, Yasuji Shinohara*

33-P. Formation of Cathode Electrode in Layered Planar SOFC. *Won-Jun Lee, Dong-Hun Yeo, Hyo-Soon Shin, Dea-Yong Jeong*

34-P. Preparation of Nano-porous Silicon Carbide Fibers by Electrospinning of Polyphenylcarbosilane. *Dong-Geun Shin*

35-P. Synthesis of $BaTiO_3$-PVDF powders and growth of composite films by aerosol deposition. *Sung Hwan Cho, Young Joon Yoon*

36-P. Fabrication of membraneless microfuidic fuel cell using LTCC combined with photolithography. *Ji-Yun Seon, Young Joon Yoon*

37-P. Microstructure of graphite sintered using mixture of pitch and phenol resin. *Kwang-Youn Cho, Khos Erdene*

38-P. Effect on heating rate to fabrication of silicon carbide fiber with polycarbosilane fiber. *Tae-Eon Kim, Kwang-Youn Cho*

39-P. Silicon oxycarbide Films from Polyphenylcarbosilane by Dip Coating process. *Yoon-Joo Lee, Dong-Geun Shin*

40-P. Foaming properties of blast furnace slag-based lightweight matrix. *Sungyu Park, Yunmi Kim, Sangsoo Lee**

41-P. Synthesis and application of Tricaprylmethylammonium thiosalicylate task specific ionic liquid as extracting agent. *Han Beom Yang, In-Ho Yoon, Chong-Hun Jung, Chorong Kim, Wang-Kyu Choi*

42-P Effect of nanometer Al_2O_3 powder on zirconia ceramics by microwave sintering. *Wang Chuanchuang, Liu Yin. Chen Chen, Zhu Yanyan*

43-P. Effects of mineral activators on the hydration properties of a ternary, low-heat blended cement with abundant Ground Granulated Blast-furnace Slag. *Gyu Yong Kim, Sung Woo Choi, Deuk-Hyun Ryu*

44-P. Properties of Shrinkage and Strength on the Ultra High Strength Concrete with Shrinkage Reducing Agent and Types of Cementitious Materials. *Hyungjae Moon, Taewang Lee, Gyudong Kim, Kyungmo Koo, GyuyongKim**

45-P. Water Absorption ratio Characteristics of Lightweight Composite Panel Surface Material Based on Addition ratio of Powdery Modified Sulfur. *Heontae Kim, Byeongyeol Jung, Chulho Song, Sangsoo Lee**

46-P. Synthesis of flexible film-type enzyme catalysts using κ-carrageenan and porous film support. *Sohei Yamazaki, Takeshi Mori, Isao Ogino, Shin R. Mukai**

47-P. Autogenous Shrinkage Model of High Strength Concrete Considering Hydration Heat History at Early Ages. *Kyungmo Koo, Bokyeong Lee, Gyuyong Kim**

48-P. Strength Properties of Non-cement Matrix Based on Blast Furnace Slag and Polysilicon Sludge Mixing ratios. *Jeonggeun Lim, Sangsoo Lee**

49-P. Scientometric Evaluation of Research on Biomedical Ti Alloys. Jong-Heon Kim, *Dea-Hyun Jeong, Sang-Woo Kim, Chang-Gyu Kim, Sang-Cheol Kil**

50-P. Durability Properties Evaluation by Binder Composition of Combined Deterioration Concrete such as Carbonation and Salt Damage. *Young Bong Kim, Gyu Yong Kim, Dong Cheon Park*

51-P. The Strength Characteristics Based on Curing Method and Curing Time of Inorganic Binder Matrix of Ternary System. *Jinwoo Lee, Sangsoo Lee*

52-P. Creep behavior of expansive concrete. *Hyeonggil CHOI, Myungkwan LIM, Takafumi NOGUCHI, Ryoma KITAGAKI*

53-P. Experiment Study on Mechanical properties of artificial stone based on mixing ratio using the waste resources. *Yongjin Yoo, Sangsoo Lee*, Hayoung Song*

54-P. Solidification Behavior of High-Density Polyethylene during Injection Molding (IM): Correlation between Crystallization Kinetics and Thermal Gradient Field. *Bin Yang, Gui-jing Li, Ru Xia*, Jiasheng Qian, Peng Chen, Guojun Cheng*

55-P. Preparation and performance of hydrophobic flame retardant polyurethane elastomer. *Wenzong Xu*, Zhuting Nie, Shaoqing Wang, Yuan Hu**

56-P. Preparation of Microencapsulated Ammonium Polyphosphate and Its Flame Retardance in Polypropylene. *Wenzong Xu*, Pengcheng Wang, Shaoqing Wang*

57-P. Preparation of Paraffin/Polystyrene Nanocapsules via Combined Miniemulsion/ Emulsion Polymerization. *Feng Zhang*, Songtao Yu, Gui-hua Hou, Ning Xu*

58-P. Chemical Thermodynamic Analysis of Crevice Corrosion System in Oxalic acid Solution. *Sang Yoon Park*, Jun Young Jeong, Hui-Jun Won, Seon Byeong Kim, Wang-Kyu Choi, Jei-Kwon Moon and So Jin Park*

59-P. Spalling and Water Vapor Pressure of Concrete with Heating Velocity. *Gyeong Cheol Choe, Gyu Yong Kim*, Young Wook Lee, Tea Gyu Lee*

60-P. Dissolution Characteristics of Iron Oxide by Cu^{+}-N_2H_4-HNO_3. *Hui-Jun Won*, Woo-Sung Lee, Seon-Byeong Kim, Sang-Yoon Park, Chong-Hun Jung, Wang-Kyu Choi and Jei-Kwon Moon*

61-P. Decomposition of N_2H_4 by H_2O_2 Solution. *Woo-Sung Lee , Hui-Jun Won*, Seon-Byeong Kim, Sang-Yoon Park, Chong-Hun Jung, Wang-Kyu Choi and Jei-Kwon Moon*

62-P. Hydration Reaction of Rapidly Cooled Ladle Furnace Slag Mixed with Gypsum. *Jinman Kim, Sungyu Park, Sunmi Choi**

63-P. Introduction of Additional Mesopores into Carbon Microhoneycombs with the Aid of Dextran. *Shinichiroh Iwamura*, Kohei Kitano, Isao Ogino, Shin R. Mukai*

64-P. Stability of Foaming Agent for Foam Decontamination. *Chong-Hun Jung, In-Ho Yoon, Suck-Bon Yoon, Chorong Kim, Wang-Kyu Choi, and Jei-Kwon Moon*

65-P. Evaluation for the Impact Failure Behavior of Fiber Reinforced Concrete using Steel and Organic Fiber. *Hong Seop Kim, Gyu Yon g Kim*, Jeong Soo Nam, Jung Hyun Kim, Sang Hyu Han*

66-P. Properties of Compressive Strength of Concrete Based on Slag Binder using Pig Iron Preliminary Treatment Slag as an Activator. *Kyoungsu Shin, Gyuyong Kim*, Minho Yoon, Kyungmo Koo*

67-P. THERMAL PROPERTIES OF PCM-FOAMED CONCRETE. *Myungkwan LIM, Hyeonggil CHOI, Enkhbold Odontuya, Donguk Choi*

68-P. Scientometric Analysis of Nano Anodic Materials for Secondary Batteries. *Dae-Hyun Jeong, Sang-Woo Kim, Jong-Heon Kim, Soo-Woo Nam, Sang-Cheol Kil**

69-P. Structure properties of aluminum nitride multilayer films with different layer thicknesses ratios(LTR). *Chang Sup Oh, Sang-Cheol Kil and Chang Seok Han**

70-P. The Melting Effect of Fiber to prevent spalling on High Strength Concrete. *Taegyu Lee, Gyuyong Kim*, Gyeong Choel Choe, Yeonwoo Kang*

71-P. Numerical simulation of combustion behavior in 6.9 m sintered brick tunnel kiln. *Ning Xu, Yunfei Yan, Yue Xu**

72-P. Application of the temperature-programmed reduction method for the Evaluation of the Edges and Functional Groups of Carbon Materials. *Kazuki Matsumura, Taro Kinumoto, Tomoki Tsumura and Masahiro Toyoda*

73-P. The recombinant BCG-EgG1Y162 vaccine against the Echinococcus granulosus infection in BALB/c mice. *XIUMIN MA, Delixiati. Yimiti, FENGBO ZHANG, Zulipiye Tuerxuna, HUI ZHAO, Yan Xin, Yue JieZhu, Chun Bao Cao, Xuelei Liu, HAO WEN* and JIANBING DING**

74-P. Effects of Dicumyl Peroxide on Properties of Natural Rubber/Waste Rubber Powder Composites. *Guoxin Ding*, Jinian Yang, Zhao Duan, Kai Zhang, Kui Lu*

75-P. The Preparation and Photocatalytic Perfomance of Nanoparticles Strontium Titanate Synthesized by Molten Salt Modified Pechini Route. *Yin Liu, Qian Qian, Jinbo Zhu, Fanfei Min, Mingxu Zhang*

76-P. Study on hydration of montmorillonite and kaolinite in Na+ and Ca2+ aqueous solutions. *MIN Fanfei, PENG Chen liang, LIU Lingyun*

77-P. Lateral self-oxidation of a nanoscale aluminum and its applications in anti-counterfeiting. *Xianglong Wan*, Ye Wang, Xihui Chen, Qiming Zhang, Fanfei Min, Meinhard Knoll*

78-P. Experimental Study on Initiation Way of AmPAM. *Chuyang Xu*, Yanfen Wang, Rongchun Nie, Mengting Li*

79-P. Analysis of the Collectin Placenta-1 Gene Promoter. *YOUN-UCK KIM*

80-P. Biotemplate Synthesis of Titanium Dioxide Microspheres and their Behaviors of Photocatalysis. *Feng Cao*, Chang-Huan Jin*

81-P. Easy synthesis of bionic fibers alpha-Fe_2O_3: the structural, magnetic and photocatalytic performance. *Qi Wei, Feng Chen*, Yongyi Ding, Chengbao Liu, Zhigang Chen*

82-P. Hydrothermal synthesis of cubic mesocrystal CeO_2 for visible photocatalytic degradation of rhodamine B. *Jiawei Zhang, Feng Chen*, Xiwen Liao, Chengbao Liu, Zhigang Chen*

83-P. Microwave-assisted synthesis and catalytic property of CeO_2 nanotubes. *Xiaowang Lu, Zhigang Chen*

84-P. Preparation of Micro-Nano Hierarchical Porous Carbon Materials by Biological Induced method and its Adsorption Property. *Ping Li, Zhigang Chen*, Chengbao Liu, Junchao Qian, Feng Chen*

85-P. MnO_2–graphene tube composite derived from biological template and its electrical properties. *Fengjuan He, Zhigang Chen*, Chengbao Liu, Junchao Qian, Feng Chen*

86-P. High-performance flexible supercapacitors based on CeO_2-MnO_2 quantum dots grown on graphene thin-film electrodes. *Chengbao Liu, Junchao Qian, Zhigang Chen*, Feng Chen, Zheng Xu, Ping Li, Fengjuan He, Zhenying Wu*

87-P. Graphene oxide-nickel ferrite hybrid catalyst for the photocatalytic degradation of ammonia under visible light irradiation. *Shan-Shan Zhou, Bo Xiao, Shou-Qing Liu, Yong Qian, Ze-Da Meng, Cong-Yang Zou, Jian-Zhang Li, Juan-Bo Zhong*

88-P. Electrical Properties of Core-Shell Nanostructured Polyaniline Composites. *Jiaoyan Shen, LijunChen, Xinli, XinliCheng, FengChen*

89-P. Preparation of SnO_2-x@MoO_3 composites with excellent visible light photocatalytic activity. *Wang Yan, Chen Hui, Xu Xiaowen**

90-P. Synthesis and Properties of a novel bipolar host materials based on 1,2,4-oxadiazole for green phosphorescent OLEDs. *Xin ZHAO, Zhao-Yang LIN, Rong-Jia ZHAI, Yu CHEN, Fei CHEN*

91-P. Template-free formation of spindle-like Fe_2O_3 microstructures by hydrothermal reduction. *Xing Zhou*,Yanmao Dong, Jihang Li*

92-P. Effect of Aquatic Factors on Dispersion of Titanium Dioxide Nanoparticles. *Ming*

Chen, Kairong Zhou, Nan Xu, Yunlong Wang, Zhigang Chen, Jianping Chen, Xuerong Lu, Keqing Sun*

93-P. Synthesis of $CaCO_3$/montmorillonite Composite for Simultaneous Removal of Ammonium and Phosphate. *Yanan Li, Cheng Liu, Tao Xu, Nan Xu*, Kairong Zhou, Zhigang Chen, Shouqing Liu, Dewen Li*

94-P. Synthesis of Calcite/Zeolite Composite for Simultaneous Removal of Ammonium and Phosphate. *Jin Tan, Nan Xu*, Zhigang Chen, Dewen Li, Fang Feng, Shouqing Liu, Yuyang Zhou*

95-P. Effects of Ce substitution on the structure and magnetic properties of naturally layered TbMn6Sn6 compound. *Jinlei Yao, Ju Gao*

96-P. Optical hydrogen sensing response of palladium coated tungsten oxide films. *Meng Zhao, Mon Han Wong, Feng Chen, Ju Gao, Chung Wo Ong**

97-P. Fullerene enhances the photocatalytic activity of Nickel Ferrite for degradation of dyes under visible light irradiation. *Zhou Congyang, Liu Shouqing**

98-P. Application of Bamboo Fiber sheet as a Gas Diffusion Layer of Proton Exchange Membrane Fuel Cell by Carbonization. *Takuya Matsumura, Taro Kinumoto*

99-P. Few-layer graphene synthesized from graphite intercalation compounds by adding a solven. *Takuya Yasutake, Takuya Wada, Akira Nakasuga, Taro Kinumoto, Tomoki Tsumura, Masahiro Toyoda*

100-P. Hydrogeochemical evaluation of deep groundwater in the QiGanLou Iron Mining District of North Anhui. *Shanmou Yang, Jiaquan Wang, Xiaogang Jia*

101-P. Preparation and photocatalytic properties of SnS_2 nano sheets made by hydrothermal method. *Shi-biao Wu*, Chang-ling Liu, Fei-fei Li, Ye-jun Ge, Tan Zhang, Shou-jun He*

102-P. A sorbent of sulfonated reduced graphene oxide loaded with Fe(III) for the removal of fluoride from aqueous solution. *Shi-biao Wu, Ling-tao Kong*, Jin-huai Liu*

103-P. Preparation of three-dimensional reduced graphene oxide aerogel and its adsorption for Hg(II) in aqueous phase. *Shi-biao Wu, Ling-tao Kong*, Jin-huai Liu*

104-P. Synthesis of Kapok-Porous Materials. *Ki Hyun Choi, Seung Ha, Ka Kyong Yeo, Seung Kyu Park**

105-P. Enrichment of Whey by Continuous Foam Fractionation Method. *Goutam Mukhopadhyay*

106-P. Preparation and characterization of functional microcapsules containing suspensions of conducting materials. *Dae Woo Ihm* and Won Ho Kwon*

107-P. Aggregate of Different Chemical Composition Impact on Pore Structure of Dam Concrete. *Yan Shi, Huaquan Yang, Shihua Zhou, Kaitao Xiao, Xia Chen*

108-P. Synthesis and Properties of Anionic Waterborne Polyurethane Containing Azo-dye Chromophores. *Yan Zheng, Xingyuan Zhang*, Junpei Li*

109-P. Effect of Mixer on the deNO_x Phenomena in Urea-SCR System of Diesel Engine. *Kyoungwoo Park*, Chol-Ho Hong, and Byeong-Sam Kim*

110-P. CO_2 capture in 3-D Covalent-Organic Framework Materials. *Gaixia Luo, Qinfang Zhang, Baolin Wang*

111-P Recovery of Isopropyl Alcohol from Azeotropic IPA by Thermal Swing Adsorption Using Zeolite. *Min-Seok Yoon, Kyung-Chai Jeong, Moon Sung Cho, Jin-Bae Kim**

112-P Fabrication of Ultra-Thin Glass by Wet Etching Process. *Jeong-Ho Kim, In-Sung Hwang, Ho-Tae Kim, Jin-Bae Kim**

Important Information

1. Restaurant for Welcome Reception

Dmaris Buffet Restaurant (Tel: 1699-3791 or 041-568-3791)

- **Location : Near Cheonan-Asan Station**

- **KTX train schedule**

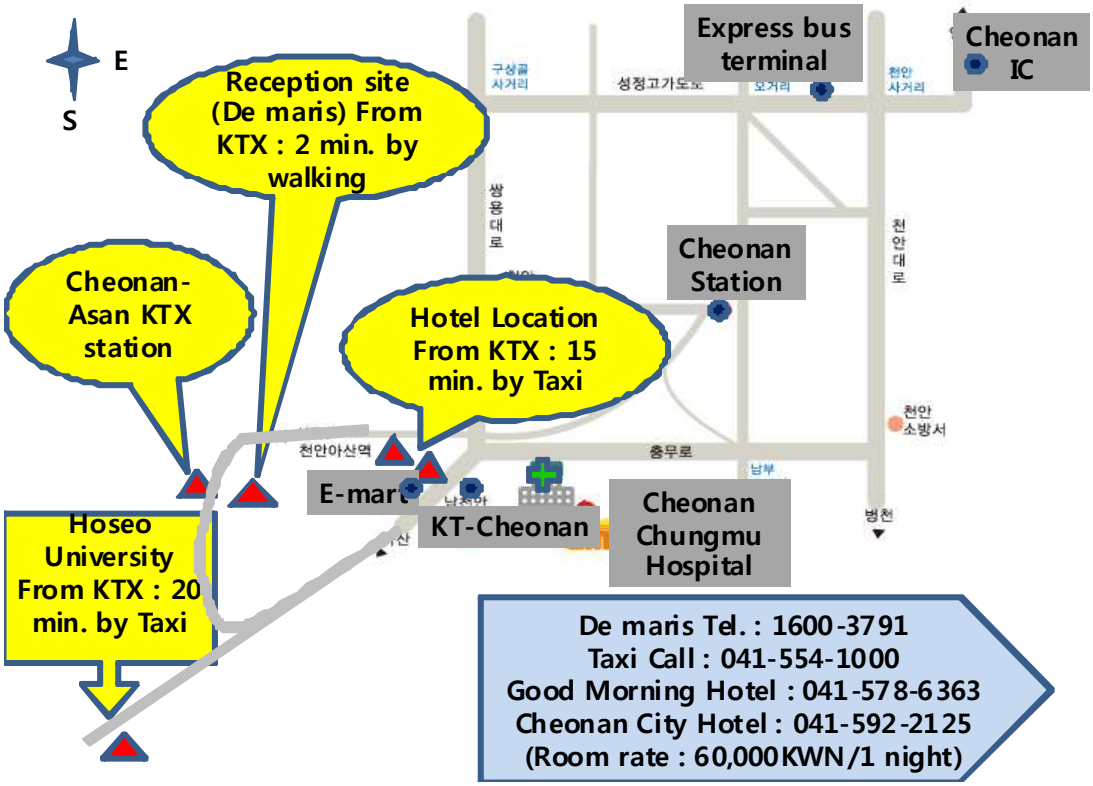
(Incheon Airport → Cheonan-Asan KTX station)

	Depart	Transit	Arrive
Direct(Incheon→ Cheonan-Asan)	15:30 16:30		17:26 18:03
Transit(Incheon→Seoul ->Cheonan-Asan)	Takes 44min from Incheon Airport to Seoul → Transit → takes 35~45min to Cheonan-Asan Station		

2. Accommodations

Goodmorning Hotel Cheonan **(041-578-6363)**

Campus Map



Transportation

Train

1. Non-Direct route

   Incheon Airport --> (55 min) Seoul station (Arex)--> (35 min)
   Cheonan-Asan station (KTX) --> (20min, Taxi) Hotel (or University)

2. Direct route

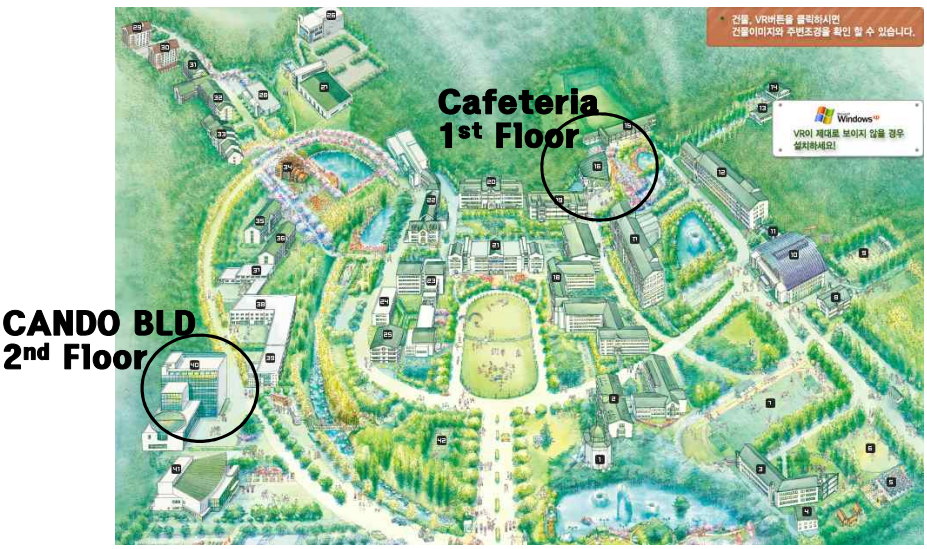
   Incheon Airport --> (1 and half hours) Cheonan-Asan station (KTX) -->
   (20min, Taxi) Hotel (or University) (not many)

Limousine bus

Incheon Airport --> (about 2 hours) Cheonan bus terminal --> (20min, Taxi)
Hotel (or (30min, Taxi) University)

Campus Map

ICMMA 2014 HOSEO UNIVERSITY



Sponsors

- ✓ **Taemyung Scientific co., Ltd.**
- ✓ **International Multifunctional Materials and Photoscience Society**
- ✓ **NEVEN ACTIVATED CARBON Ltd**
- ✓ **DUKSAN Ltf.**
- ✓ **Leanontech Ltd.**
- ✓ **SAM BO SCIENTIFIC Ltd.**
- ✓ **HANEULSCI Ltd.**
- ✓ **ChungNam Green Environment Center**