

1. Best Poster APJ Award

One Best Poster Award is selected from the 45 best poster papers of APCChE2010 by the Asia-Pacific Journal (APJ) of Chemical Engineering.

APJ Award

10313	First-principles prediction of phase equilibrium	Chieh-Ming Hsieh and Shiang-Tai Lin *
--------------	--	--

2. Best Poster Papers of APCChE2010

Best poster papers are selected from the best posters in each category. A total of 45 papers (about 7% of the total posters) are awarded best poster papers.

Thermodynamics

10403	Effect of Molecular Weight Distribution on Phase Behavior of Polyethylene Solution at High Temperature	Masashi Haruki [*] , Kunio Nakanishi, Shigemitsu Mano, Shin-ichi Kihara, and Shigeki Takishima
10313	First-principles prediction of phase equilibrium	Chieh-Ming Hsieh and Shiang-Tai Lin *

Transport Phenomena and New Separation Technologies

10093	Separation of the cresol isomers by distillative crystallization (Separation of <i>p</i> -cresol from the cresol isomers by stripping crystallization)	Lie-Ding Shiau [*] , Chih-Hao Huang, and Keng-Fu Liu
10224	Breakup of bubbles in a microfluidic T-junction	Youguang Ma [*] , Taotao Fu, Chunying Zhu and Huai Z. Li
10587	Development of a parallel computing algorithm for the analysis of fine powder conveying	Yusuke Shigeto, Mikio Sakai [*] , Seiichi Koshizuka
10183	Controlled Assembly of Uniform Functional Particles Via a Novel Microfluidic Jet Spray Dryer	Winston Duo Wu, Ria Amelia, Na Hao, Cordelia Selomulya [*] , and Xiao Dong Chen

Catalysis and Reaction Engineering

10982	Influence of heat pretreatment on saccharification of woody biomass	Wataru Masuda, Osamu Terakado, Masahiro Hirasawa [*]
10537	Development of Reactor by Using Ultrasound and Ozone Micro-bubbles	Keiji Yasuda [*] , Tetsuya Naito, Takao Suzuki, Tomokiyo Takeyama, and Yoshiyuki Bando
10449	Acid-Alkaline Bi-functionalized Mesoporous Silica Nanocatalysts for Direct Cellulose-to-HMF Conversion (One-pot Enhanced Cellulose-to-5-Hydroxymethylfurfural	Wun-Huei Peng and Kevin Chia-Wen Wu [*]

	(5-HMF) Conversion by Using Acid-Alkaline Bi-functionalized Mesoporous Silica Nanocatalysts (MSN))	
10676	Reactivity tests of Ni-based catalysts applied to various additives for production of SNG from coal gas	Seonki Jang, No-Kuk Park, Suk Hoon Yoon, Tae Jin Lee [*] , Dong Jun Koh, Hyojun Lim, Changdae Byun
10295	Hydrogen Production by Photodecomposition of Ammonia over Metal loaded TiO ₂ photocatalysts	Kensuke Kitagawa, Shingo Saijo, Yuichi Ichihashi [*] , and Satoru Nishiyama
10488	Optimization of Catalytic Membrane Material for Direct Partial Oxidation of Methane	Hamzah Fansuri [*] , Didik Prasetyoko, Irmina kris Murwani, Nurul Widiastuti

Green Product and Process Systems Engineering

10155	Development of Self-Validating Soft Sensors Using Fast Moving Window Partial Least Squares (Development of Soft Sensors Based on Fast Moving Window Approach)	Jialin Liu [*] , Jui-Fu Shen, Ding-Sou Chen, Ming-Wei Lee
10113	Process intergration: Cooling water systems design	Khunedi Vincent Gololo [*] and Thokozani Majozi
10657	Nonlinear Multivariable Control for Rapid Thermal Processing Systems Based on Thermal Budget	Jyh-Cheng Jeng [*] , Wen-Chung Chen
10440	Reduce Energy Consumption and Investment Cost Using Integrated Debutanizer/Deisobutanizer Column	Suraya Hanim Abu Bakar, Nguyen Van Duc Long, and Moonyong Lee [*]

Biochemical Engineering and Systems Biology

10180	Functional Magnetic Nanoparticles for Efficient DNA Vaccine Delivery (PEI-coated superparamagnetic iron oxide for the delivering Malaria DNA vaccine encoding merozoite surface protein 1 ₁₉)	Fatin M. Nawwab Al-Deen, Jenny Ho, Cordelia Selomulya [*] , Charles Ma and Ross Coppel
10532	Signaling Pathways in the Neural Differentiation of Bone-Marrow Mechymal Stem Cells	Hui-Hung Tzeng, Ting-Hao Chung, Yu-Wei Leu, and Wen-Chien Lee [*]
10361	Use of the Perfluoropolyether for the Surface Modification: Patterning of Polymer and Biomolecules and Superhydrophobic Surface	Sunil Kwon, Sungjun Ahn, Jongwook Ha, Sang-Yup Lee [*]
10426	Regeneration of cofactors using metal oxide electrode and its applications to chemical synthesis and biosensor	Y. J. Yoo [*] , Y. H. Kim, K. S. Min, Y. M. Ryu
10640	Production of Japanese Encephalitis Virus-Like Particles in Insect Cell Expression Systems	Hideki Yamaji [*] , Yusuke Takahashi, Masataka Nakamura, Tomohisa Katsuda, Miwa Kuwahara, and Eiji Konishi

10321	Effects of papain digestion on photoelectric response of bacteriorhodopsin	Hsiu-Mei Chen [*] and Sin-Yu Chen, Yi-Hang Chen, An-Dih Yu
--------------	--	---

Computational Molecular Science and Engineering

10258	An Optoelectrical Model for Organic Bulk Heterojunction Solar Cells	Nai-Yung Chang [*] , Shiang-Tai Lin
--------------	---	--

Clean Energy Systems and The Environment

10677	Solidification behaviors of the thermoelectric Ag-Pb-Te and Pb-Sb-Te systems (Phase equilibrium in the ternary Ag-Sb-Te system)	Hsin-Jay Wu, Sinn-Wen Chen [*]
10901	The Effects of Electroporation on the Fluorescence Labeling Process of Algae	Li-Chien Su, and Hsiang-Yu Wang [*]
10197	A Direct Solar Thermal Membrane Distillation Unit for Desalination	Hsuan Chang [*] , Chii-Dong Ho, Chien-Chang Li and Po-Hsiang Wang
10525	Synthesis and Application of Mesoporous-Assembled TiO ₂ -ZrO ₂ Mixed Oxide Nanocrystals for Photocatalytic Sensitized Hydrogen Production (Hydrogen Production from Water Splitting under Visible Light Irradiation Using Sensitized TiO ₂ -ZrO ₂ Mixed Oxide Photocatalysts)	Lawan Kokporika, Thammanoon Sreethawong [*] , and Sumaeth Chavadej
10756	A plant-growth chamber system for the exposure to submicron aerosol particles	Wuled Lenggoro [*] , Masao Gen, Fong-Zyin Lim, Seiji Ikawa, Masahiro Yamaguchi, Takeshi Izuta
10279	Removal of NO _x and SO ₂ in air under simultaneous irradiation of electron beam and microwave and kinetic investigation of NO _x removal rate	Hyun Kug Cho, Jung Soo Park, Soog Dong Kim, and Do Hung Han [*]

Electrochemical Engineering

10978	Fast Growth of Titanate Nanomesh by One-step Hydrothermal electrochemical Method (Rapid Growth of Bioactive Titanate Nanomesh with One-step Hydrothermal-anodization Method)	Chun-Yi Chen [*] , Kenichi Katsumata, Kiyoshi Okada, Kazunari Ozasa, and Nobuhiro Matsushita
10976	Electroplating of Nickel in Supercritical Carbon Dioxide Emulsion Using Additive-Free Watts Bath	Tsu-Fu Mark Chang [*] , Chiemi Ishiyama, and Masato Sone
10402	N-doped carbon nanosheets from biomaterial – collagen (Synthesis of carbon nanosheets from self-assembled collagen EDLCs)	Ying-Hui Lee, Ying-Feng Lee, Chi-Chang Hu [*]
10925	Characteristics of TBPS Monolayer Self-Assembled on an Au(111) Surface and Its Effect on the Electrochemical Deposition of the Copper (Characteristics of 3,3'-Thiobis(1-Propanesulfonic Acid, Sodium Salt) Self-Assembled on Au(111) Surface and Its Effect on the	Yung-Fang Liu, Pin-Chun Lin, and Yuh-Lang Lee [*]

Nano-materials and Nano Technologies

- | | | |
|--------------|--|---|
| 10445 | Preferential Growth of Long ZnO Nanowires Arrays via Continuous Flow Injection Method and Its Application in Dye Sensitized Solar Cells | Yu-Tung Tin, Yen-Zhi Chen [*] and Liang-Yih Chen |
| 10836 | Assembly of monodisperse iron/silica microcomposites via a novel Micro-Fluidic-Jet-Spray-Dryer (Production of Monodisperse Microparticles of Europium (III)/Silica Nanoparticle/Lactose via a Novel Micro-Fluidic-Jet-Spray-Dryer) | Ria Amelia, Winston Duo Wu, Na Hao, Cordelia Selomulya [*] , and Xiao Dong Chen |
| 10424 | Crystal Orientation in Nano-Confined Lamellae of Strongly-Segregated PLLA- <i>b</i> -PE and PDLLA- <i>b</i> -PE Diblock Copolymers (Crystal Orientation in Strongly-Segregated Double-Crystalline PLLA- <i>b</i> -PE and Amorphous-Crystalline PDLLA- <i>b</i> -PE Diblock Copolymers) | Ming-Champ Lin, Yi-Chin Wang, Hsin-Lung Chen [*] , Alejandro J. Müller, U-Ser Jeng, and Marc A. Hillmyer |
| 10562 | Preparation of Silver Nanoparticles Dispersions by Microwave-assisted Polyol Synthesis and Their Application in Inkjet Electric Circuit Printing | Masahide Sato [*] , Takuya Nikaido, Atsushi Oki, Takeshi Furusawa, Noboru Suzuki |
| 10798 | Synthesis of Zinc Oxide Nanoparticles Using an Atmospheric Pressure Plasma Jet | Shih-Min Chang, Cheng-Che Hsu [*] |
| 10431 | Functionalized Mesoporous Silica Thin Films for Controlled Release: Effects of Mesostructures and Functionalities on the Release Kinetics (Functionalized Mesoporous Silica Thin Films for Controlled Release: Effects of Mesostructures and Functionalities on the Release Kinetics of Guest Molecules) | Hong-Yuan Lian and Kevin Chia-Wen Wu [*] |
| 10396 | Investigation of Utilizing DNA molecules for Nanowire Lithography | Ming-Yang Lin, Yi-Je Juang |

Polymer Engineering and Material Processing

- | | | |
|--------------|---|---|
| 10500 | Analysis of strength mechanism for coke impregnated by PVA aqueous solution | Y. Komatsu, Y. Asakumaa [*] , K. Nakagawa, K. Maeda, K. Fukui, K. Kotani and M. Nishimura |
| 10985 | Investigation of annealing effects of polymer solar cells based on low band gap donor materials | Wei-Jen Su, Fu-Siang Hung, Ruei-Min Huang, Tzong-Liu Wang [*] |
| 10189 | Synthesis of Star-Shaped Polymers with Styrene <i>p</i> -Substituted Fluorene Moieties and Their Honeycomb Morphology | Jung-Ching Hsu, Kenji Sugiyama, Yu-Cheng Chiu, Wen-Chang Chen [*] , and Akira Hirao [*] |
| 10294 | Elasticity of Polymer Network | Yuichi Takita, Jiro Koga [*] , Shunji Homma |
| 10803 | Development of Novel Biodegradable Polymeric | Esar Pramudityo, Kuan-Wen |

10790	Microneedles for Transdermal Delivery Structural Aggregates of Rod-Coil Copolymers Solution (Self-assembled Structure-within-structure Morphologies of Rod-Coil copolymer)	Wang, and Mei-Chin Chen [*] Shih-Hao Chou [*] , Yu-Jane Sheng, and Heng-Kwong Tsao [*]
--------------	---	---