



ACW 2013

The 5th Asian Coating Workshop

Hana Square, Korea Univ., Seoul, Korea / May 9th-10th, 2013

Organized by Center for Nano-structured Polymer Processing Technology

Program

May 9 (Thursday)

08:00 – 09:00 Registration
09:00 – 09:20 Welcoming Address

Session I-1: Chair: Prof. Kyung Hyun Ahn

09:20 – 10:00 Plenary Lecture (I)
Dr. **Inseok Hwang** (Vice President, LG Chem, Corporate R&D, Korea)
“Printing as an Alternative to Photolithography”
10:00 – 10:20 Coffee Break

Session I-2: Chair: Prof. Masato Yamamura

10:20 – 10:40 Prof. **Ta-Jo Liu** (National Tsing Hua Univ., Taiwan)
“Current Research Work at the Precision Coating Lab, Tsing Hua University, Taiwan”
10:40 – 11:00 Prof. **Yoshiko Tsuji** (Univ. of Tokyo, Japan)
(Y. Tsuji and Y. Yamaguchi)
“Nanostructure and Electrical Properties of Low Molecule and Polymer Organic Semiconductor Thin Films”
11:00 – 11:20 Prof. **Carlos Tiu** (Monash Univ., Australia)
(D. Liu, L.-C. Chen, T.-J. Liu, C. Tiu, T. Fan, and E.-Y. Tsou)
“Effective Mixing of Anode and Cathode Materials for Li-batteries”
11:20 – 11:40 Prof. **Kyung Hyun Ahn** (Seoul National Univ., Korea)
“Researches in the Lab of Microrheology”
11:40 – 13:00 Lunch

Session I-3: Chair: Prof. Yoshiko Tsuji

13:00 – 13:20	Prof. An-Bang Wang (National Taiwan Univ., Taiwan) <i>“Introduction of Coating Research at National Taiwan University”</i>
13:20 – 13:40	Prof. Masato Yamamura (Kyushu Institute of Technology, Japan) <i>“Brief Overview of Drying Researches at Kyutech”</i>
13:40 – 14:00	Prof. Hyun Wook Jung (Korea Univ., Korea) <i>“Overview of Slot and Roll Coating Flows”</i>
14:00 – 14:20	Coffee Break

Session I-4: Chair: Prof. Hyun Wook Jung

14:20 – 14:40	Prof. Madhu Vinjamur (IIT-Bombay, India) (M. Bhavishya and M. Vinjamur) <i>“Optimization of Operating Parameters for Drying of Multi-component Coatings in a Single Zone Dryer”</i>
14:40 – 15:00	Prof. Yoshiyuki Komoda (Kobe Univ., Japan) <i>“Utilization of Rheological Measurements for Understanding the Coating Processes of Dispersion Systems”</i>
15:00 – 15:20	Prof. Jaewook Nam (Sungkyunkwan Univ., Korea) <i>“Analysis of Tensioned-web over Slot Coating”</i>
15:20 – 15:40	Coffee Break
15:40	<i>End of the first day</i>

Special Programs for ACW Committee Members and International Students

16:00 –	(I) ACW Committee Meeting #I (II) International Student Team Program #1
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May 10 (Friday)**Session II-1: Chair: Prof. Ta-Jo Liu**

09:00 – 09:40	Plenary Lecture (II) Dr. Shuzo Fuchigami (Univ. of Minnesota, USA) <i>“Academia & Industry Successful Collaboration in Precision Coating Technology”</i>
09:40 – 10:00	Coffee Break

Session II-1: Chair: Prof. Jaewook Nam

10:00 – 10:10	Yi-Kuang Yen (National Taiwan Univ., Taiwan)
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	(Y.-K. Yen, Y.-W. Jiang, S.C. Chang, and A. B. Wang) <i>“Biomaterial Thin Film Coating Using an Ultra Thin Advanced Coater”</i>
10:10 – 10:20	Tatsuya Kai (Kyushu Institute of Technology, Japan) (T. Kai, M. Yamamura, Y. Mawatari, and H. Kage) <i>“Ribbing Instability of Fluids Coated on a Patterned Surface: Effects of Groove Geometries”</i>
10:20 – 10:30	Won-Ki Ahn (Korea Univ., Korea) (W.-K. Ahn, S.H. Lee, G.H. Han, H.W. Jung, and J.W. Nam) <i>“Flow Behavior and Operability Window in Stripe Slot Coating”</i>
10:30 – 10:40	Yu-Wen Hsieh (National Taiwan Univ., Taiwan) (Y.W. Hsieh, T. Glasenapp, C.L. Chen, and A.B. Wang) <i>“Real-Time Bubble/Droplet Size Monitoring of Air-Bubble Coating”</i>
10:40 – 10:50	Shao-Hsuan Lo (National Tsing Hua Univ., Taiwan) (S.H. Chiou, S.H. Lo, and T.J. Liu) <i>“The Development of Organic Solar Cells through Wet Coating Process”</i>
10:50 – 11:00	Naoya Tsutsumi (Univ. of Tokyo, Japan) (N. Tsutsumi, Y. Tsuji, and Y. Yamaguchi) <i>“Structural, Optical and Electrical Properties of Fluorine-doped Tin Oxide Thin Films by Spray Pyrolysis”</i>
11:00 – 11:20	Coffee Break

Session II-2: Chair: Prof. Yoshiyuki Komoda

11:20 – 11:30	Yasuhiro Chizaki (Kobe Univ., Japan) (Y. Chizaki, Y. Komoda, H. Suzuki, and R. Hidema) <i>“Transition of the Viscoelastic Behavior of Concentrated Slurry in the Dispersion Process”</i>
11:30 – 11:40	Sanghyuk Lim (Seoul National Univ., Korea) (S. Lim, K. Son, and K.H. Ahn) <i>“Microstructural Change of PMMA Suspensions during Drying”</i>
11:40 – 11:50	Hung-Chih Chen (National Tsing Hua Univ., Taiwan) (K.-R. Chen, H.-F. Yeh, H.-C. Chen, T.-J. Liu, S.-J. Huang and P.-Y. Wu) <i>“An Experimental Study on Coating Single-Walled Carbon Nanotubes”</i>
11:50 – 12:00	Ayaka Fujishita (Kyushu Institute of Technology, Japan) (A. Fujishita, M. Yamamura, Y. Mawatari, and H. Kage) <i>“Fluorescence Imaging of Solvent Localizations in Phase</i>

12:00 – 12:10	<i>Separating Polymer Blend Films</i> Byoung Wook Jo (Seoul National Univ., Korea) (B.W. Jo and K.H. Ahn) <i>“Effect of Coating and Drying Condition on the Depth-wise Microstructure of Rigid-rod Type Polyimide Film”</i>
12:10 – 12:20	Nobuhiko Furuse (Kobe Univ., Japan) (N. Furuse, Y. Komoda, H. Suzuki, and R. Hidema) <i>“Destruction Process of Particle Aggregates in a Startup Flow Generated within a Rotational Parallel Disks”</i>
12:20 – 13:30	Lunch

Session II-3: Chair: Prof. Madhu Vinjamur

13:30 – 13:40	Hansol Yoo (Korea Univ., Korea) (H.S. Yoo and C. Kim) <i>“The Effect of Shear Thinning on the Generation of Inkjet Droplet”</i>
13:40 – 13:50	Ayoung Lee (Seoul National Univ., Korea) (A. Lee, H. Jin, and K.H. Ahn) <i>“Optimization of Experimental Parameters to Determine the Jetting Regimes in Electrohydrodynamic Printing”</i>
13:50 – 14:00	Po-Ting Pan (National Taiwan Univ., Taiwan) (P.-T. Pan, Y.-K. Yen, A.-B. Wang, C.-L. Chen, and W.-J. Cheng) <i>“The Development and Application of Capillary Coating Technology in OLED Display”</i>
14:00 – 14:10	Milim Yu (Seoul National Univ., Korea) (M. Yu, H.K. Lee, and K.H. Ahn) <i>“Effect of Viscoelasticity of Polymer Solutions on the Cone Jet Formation in EHD Printing”</i>
14:10 – 14:20	Ji Won Hwang (Korea Univ., Korea) (J.W. Hwang, K.N. Kim, G.S. Lee, S.M. Noh, and H.W. Jung) <i>“Curing Characteristics of Dual-curable Automotive Clearcoats”</i>
14:20 – 15:50	Poster Session
15:50	<i>End of the second day</i>

Special Programs for ACW Committee Members and International Students

16:00 –	(I) ACW Committee Meeting #2
	(II) International Student Team Program #2

Poster Presentations

P1. An Experimental Study on Electrowetting

Chia-Jen Kao, K.L. Lo, T.-J. Liu

P2. The Effect of Drying on the Surface Concentration of Functional Groups for Poly-Electrolyte Solutions

Ping-Yao Wu, Shu-Heng Wen, **Hung-Chih Chen**, Ta-Jo Liu

P3. Thin Film Coating on Porous Substrate

Ping-Yao Wu, Shu-Heng Wen, **Shao-Hsuan Lo**, Ta-Jo Liu

P4. The Development of A Microneedle Patch

Yu-Ting Liao, Ta-Jo Liu, Shih-Lai Lu

P5. Formation of “Colloidal Fibers” from the Surface of a Colloidal Suspension under Reduced-Pressure Drying

Takuya Katayama, S. Inasawa, Y. Yamaguchi

P6. Effect of Drying Process on Performance of Silicon Anodes for Lithium-ion Secondary Batteries.

Takahiro Miura, S. Inasawa, Y. Tsuji, Y. Yamaguchi

P7. Surface Segregation of Particles in Polymer Films under a Three-dimensional Convection

Tomonori Tashima, Masato Yamamura, Yoshihide Mawatari, Hiroyuki Kage