

Asian Workshop on Polymer Processing 2014

November 17-20, 2014 Kenting, Taiwan



Organized by



長庚大學
CHANG GUNG UNIVERSITY

Sponsored by

科技廳
Ministry of Science and Technology



Bureau of Foreign Trade
Ministry of Economic Affairs

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MOLDING INNOVATION

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Welcome Message

Asian Workshop on Polymer Processing 2014 Invitation

Dear Colleagues,

On behalf of the Organizing Committee, it is our great pleasure to welcome you to the Asian Workshop on Polymer Processing 2014, which is held in November 17-19, 2014 at the Howard Beach Resort-Kenting inside the Kenting National Park. The park is well known for its tropical climate and sunshine, scenic mountain and beach, and has long been one of the most favorite resort places in Taiwan.

Apart from the usual conference activities consisting of plenary and invited lectures, general symposia and poster presentation, there will be a series of Special Symposia focusing on up to date topics of polymer engineering. We expect over 300 participants from Asian region and around the world to attend. Although an intensive science and technology experience is the driving force of the AWPP-2014, the social and cultural part of a visit to Taiwan should not be missed. The Organizing Committee is putting in its best effort to organize this event and make it a memorable in one of the most attractive regions of Taiwan-Kenting.

I hope that you will enjoy yourselves at the AWPP-2014 and have a meaningful as well as an enjoyable time with your colleagues in the field of polymer processing. All members of the AWPP-2014 Organizing Committee are looking forward to welcoming you at the very beautiful town, Kenting of Taiwan.

Yours sincerely,

Shih-Jung LIU

Chairman of AWPP 2014

Rong-Yeu CHANG

Co-Chairman of AWPP 2014

Conference Committee

Chairman	Liu SJ (Chang Gung University)
Co-Chairman	Chang RY (National Tsing-Hua University)
Secretary	Chiu FC (Chang Gung University), Lee D (Chang Gung University)
Treasurer	Chang YZ (Chang Gung University)

Symposia

Workshops

Workshop 1. Electrospinning of nanofibers and its applications

Workshop 2. Advanced molding technologies

General symposia

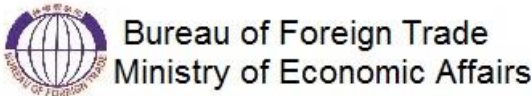
- G1. Injection molding
- G2. Extrusion and coatings
- G3. Rubber and elastomers
- G4. Polymerization and synthesis
- G5. Polymer blends and alloys
- G6. Polymer composites
- G7. Fibers and fiber processing
- G8. Membrane/Film technology
- G9. Mixing and compounding
- G10. Modeling and simulation
- G11. Monitoring and characterization
- G12. Rheology and rheometry

Special symposia

- S1. Electronic packaging
- S2. Photonic applications
- S3. Nanotechnologies and nanomaterials
- S4. Benign polymers
- S5. Novel processing technologies
- S6. Polymer foams

Acknowledgements

Sponsors



Plenary Speakers

	<p>Shia-Chung Chen Chung Yuan Christian University</p>	<p>Influence of Employing Gas Counter Pressure on Various Injection Molding and Powder Injection Molding Processes</p>
	<p>Giuseppe Titomanlio University of Salerno</p>	<p>Morphology evolutions during polymer processing of thermoplastic polymers</p>
	<p>John Vlachopoulos McMaster University</p>	<p>Challenges and Prospects for Quantitative Predictive Modeling in Cast and Blown Film Extrusion</p>
	<p>Hidetoshi Yokoi The University of Tokyo</p>	<p>Recent Topics on Advanced Experimental Analysis Technologies and Their Application Results to Unknown Injection Molding Phenomena</p>

Invited Speakers

Ahn DG	Chosun University	Development of the advanced mould to encourage green manufacturing technology – Applications to energy saving and energy harvesting system
Chmela S	Slovak Academy of Sciences	Fluorescence dye-labelled polymers prepared by nitroxide mediated radical polymerization
Fu Q	Sichuan University	Towards high-performance poly(L-lactide) blends/composites via constructing stereocomplex crystallites at the interface
Gao F	Hong Kong University of Science and Technology	Monitoring of Polymer Processing Processes
Gupta RK	RMIT University	Effects of solvent casting and melt intercalation mixing processes on characteristics of Poly(lactide)-Nanographite Platelets Composites
Heim H-P	University of Kassel	Self-reinforced materials: manufacturing, properties and their potential for light-weight composites
Holzer C	Montanuniversitaet Leoben	The role of polymer processing for successful products
Hsu CS	National Chiao Tung University	Development of n-Type Fullerene Derivatives and p-Type Conjugated Polymers and for Highly Efficient Polymeric Solar Cells
Kanai T	KT Polymer & Kyoto Institute of Technology	Evaluation of Structure Development and Stretchability During the Biaxial Stretching Process for Polypropylene
Kollar J	Slovak Academy of Sciences	Superabsorbent hydrogels based on renewable monomer tulipalin A
Li GX	Sichuan University	Phase Structure Evolution and Rheological Responce of Polymer Blends in the Presence of Nanoparticles
Maazouz A	INSA de Lyon	Interfacial rheology of multilayered polymers and application to coextrusion process
Nishimura H	Kyoto Institute of Technology	Evaluation of long-term performance of polyethylene pipes for gas distribution
Radusch H-J	Martin-Luther University	Morphology controlled multiple shape-memory behavior of heterogeneous polymer blends
Sakai T	Shizuoka University	Role of nanoclay addition in morphology development of natural rubber based polyblends and foams
Sinha Ray S	DST/CSIR Nanotechnology Innovation Centre	Concurrent Enhancement of Multiple Properties in Reactively Processed Nanocomposites of Poly(lactide)
Turng LS	University of Wisconsin-Madison	Hot-Drawn Biodegradable Poly(vinyl Alcohol (PVA)/Short Cellulose Nanofibrils (SCNF) Composite Films
Woo EM	National Cheng Kung University	Surface and Interior Lamellae Assembly in Semicrystalline Polymers via Three-Dimensional Views on Periodical Birefringence Patterns
Yang WT	Beijing University of Chemical Technology	Surface/interface Problems of Synthetic/Polymeric Materials and New Transformation Chemistries of Surface C – H : From Chemistry to Technology

Conference Information

Conference venue	Howard Beach Resort, Kenting, Taiwan	
Registration service	Monday, November 17	15:00-18:00
	Tuesday, November 18	08:10-17:00
	Wednesday, November 19	08:30-17:00
	Thursday, November 20	08:30-12:00
Conference badge	Please ensure to wear your badge at all times to enter the session rooms. There may also be coupons placed in your badge to exchange for additional purchase.	
Half-day Tour	14:00-17:00, November 17-20	
Welcome reception	Date	Monday, November 17
	Time	17:00-18:30
	Location	Exhibition Hall
AWPP Council meeting (closed meeting)	Date	Monday, November 17
	Time	10:00-15:00
	Location	M101
Conference Banquet	Date	Wednesday, November 19
	Time	18:00-21:00
	Location	Conference Hall A

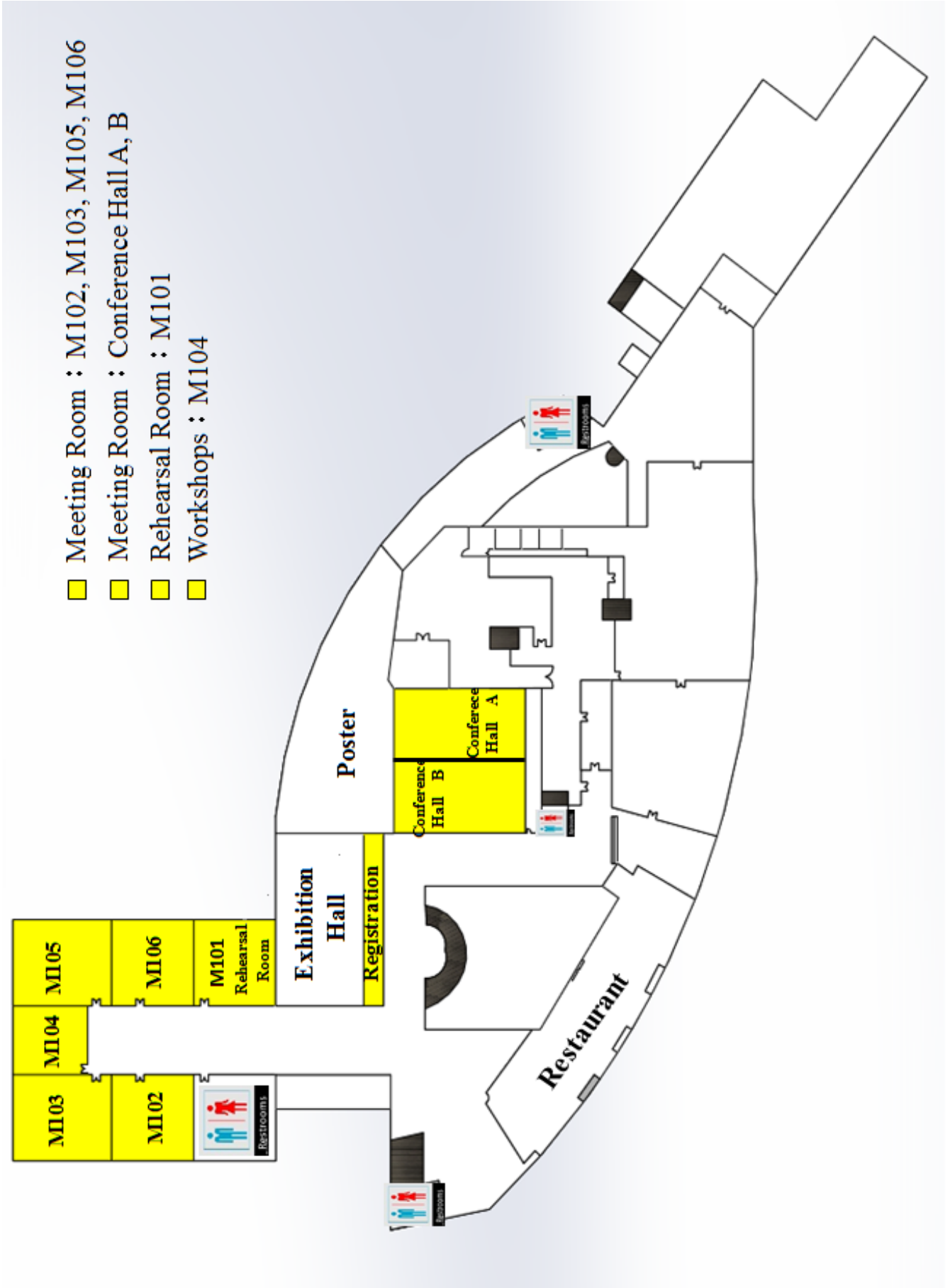
Oral Presentation Schedule

Presentation Type	Total Time	Presentation Time	Q&A
Plenary Talk	50 min.	45 min.	5 min.
Invited Talk	30 min.	25 min.	5 min.
Oral Presentation	20 min.	17 min.	3 min.

Poster Presentation Schedule

Date	Schedule	Time
Tuesday, November 18	Poster Setup	11:00-15:00
	Poster Session	18:00-20:00
	Poster Removal	20:00-21:00

Floor Plan



Program at a Glance

Monday, November 17		
	Venue	Activity
15:00-18:00	Exhibition Hall	Registration
17:00-18:30	Exhibition Hall	Welcome reception

Tuesday, November 18					
Venue	Conference Hall A				
08:30-08:50	Opening Ceremony				
08:50-09:40	Morphology Evolutions during Polymer Processing of Thermoplastic Polymers Roberto Pantani, Vito Speranza, <u>Giuseppe Titomanlio</u>				
09:40-10:30	Influence of Employing Gas Counter Pressure on Various Injection Molding and Powder Injection Molding Processes <u>Shia-Chung Chen</u> , Cheng-Chang Hsieh				
10:30-10:50	Coffee Break				
Venue	Conference Hall A		Conference Hall B		
10:50-12:20	Invited Presentations		Invited Presentations		
12:20-13:30	Lunch Time				
Venue	M103		M105		
13:30-14:00	Invited Presentations		Invited Presentations		
Venue	M103	M102	M105	M106	M104
14:00-16:00	G1. Injection molding	S5. Novel processing technologies & G10. Modeling and simulation	G6. Polymer composites	G3. Rubber and elastomers & G5. Polymer blends and alloys	Workshop 1. Electrospinning of nanofibers and its applications Kotaki M (Kaneka Inc./Kyoto Institute of Technology) Sugimoto M (Yamagata University) Wang C (National Cheng Kung University)
16:00-16:20	Coffee Break				
16:20-18:00	G8. Membrane/Film technology	G10. Modeling and simulation	S6. Polymer foams	G5. Polymer blends and alloys & S4. Benign polymers	
18:00-20:00	Poster				

Wednesday, November 19					
Venue	Conference Hall A				
08:30-09:20	Challenges and Prospects for Quantitative Predictive Modeling in Cast and Blown Film Extrusion John Vlachopoulos				
09:20-10:10	Recent Topics on Advanced Experimental Analysis Technologies and their Application to Unknown Injection Molding Phenomena Hidetoshi Yokoi				
10:10-10:30	Coffee Break				
Venue	Conference Hall A			Conference Hall B	
10:30-12:00	Invited Presentations			Invited Presentations	
12:00-13:10	Lunch Time				
Venue	M103			M105	
13:10-13:40	Invited Presentations			Invited Presentations	
Venue	M103	M102	M105	M106	M104
13:40-16:00	G7. Fibers and fiber processing	G1. Injection molding	G6. Polymer composites & G11. Monitoring and characterization	S1. Electronic packaging & G9. Mixing and compounding & G5. Polymer blends and alloys	Workshop 2. Advanced molding technologies Chang RY (National Tsing Hua University) Ito H (Yamagata University) Vlachopoulos J (McMaster University)
18:00-21:00	Conference Hall A				

Thursday, November 20				
Venue	M103	M102	M105	M106
08:30-09:00	Invited Presentation	Invited Presentation	Invited Presentation	Invited Presentation
09:00-10:00	G7. Fibers and fiber processing	S3. Nanotechnologies and nanomaterials	S5. Novel processing technologies	G12. Rheology and rheometry
10:00-10:20	Coffee Break			
10:20-12:00	G7. Fibers and fiber processing	S3. Nanotechnologies and nanomaterials	S5. Novel processing technologies & G4. Polymerization and synthesis	S2. Photonic applications & G4. Polymerization and synthesis
12:00	Lunch Time			

Tuesday, November 18					
Venue	Conference Hall A				
08:30-08:50	Opening Ceremony				
08:50-09:40	#1174: Morphology Evolutions during Polymer Processing of Thermoplastic Polymers Roberto Pantani, Vito Speranza, Giuseppe Titomanlio				
09:40-10:30	#1240: Influence of Employing Gas Counter Pressure on Various Injection Molding and Powder Injection Molding Processes Shia-Chung Chen , Cheng-Chang Hsieh				
10:30-10:50	Coffee Break				
Venue	Conference Hall A		Conference Hall B		
10:50-11:20	#1199: Surface and Interior Lamellae Assembly in Semicrystalline Polymers via Three-Dimensional Views on Periodical Birefringence Patterns. Eamor M Woo		#1040: Morphology-controlled, Multiple Shape-memory Behavior of Heterogeneous Polymer Blends Hans-Joachim Radsch , Igor Kolesov, Olexander Dolynchuk, Uwe Gohs, Gert Heinrich		
11:20-11:50	#1171: Superabsorbent Hydrogels Based on Renewable Monomer Tulipalin A Jozef Kollár , Miroslav Mrlík, Daniela Moravčíková, Jaroslav Mosnáček, Igor Lacík		#1108: Porphyrin-incorporated Low Band Gap Conjugated Polymers for Polymer Solar Cell Application Chain-Shu Hsu		
11:50-12:20	#1168: Fluorescence Dye-labelled Polymers Prepared by Nitroxide Mediated Radical Polymerization Š. Chmela , J. Kollár, L. Hrkčová		#1114: Realizing High Performance in Poly(L-Lactide)/Elastomer Blends by Constructing Stereocomplex Crystallites at the Interface Hongwei Bai, Qiang Fu		
12:20-13:30	Lunch Time				
Venue	M103		M105		
13:30-14:00	#1238: Surface/Interface Problems of Polymeric Materials and New Photo-transformation Chemistries of Surface C-H Wan-Tai Yang		#1154: Evaluation of Long-Term Performance of Polyethylene Pipes For Gas Distribution Hiroyuki Nishimura , Kazushi Yamada, Kazuhisa Igawa, Yuji Higuchi		
Venue	M103	M102	M105	M106	M104
14:00-14:20	#1028: 3D Volume Shrinkage Compensation Method in Mold Design Optimization Chen-Han Tseng , CT Huang , Chia-Hsin Tien , Sung-Wei Huang	#1194: Laser-Assisted Replication of Large-Area Nanostructures and Antireflection Surface Keisuke Nagato , Ken Takahashi, Masayuki Nakao	#1125: Infrared Reflective and Thermally Insulative Coatings for Aluminum Window Frames Yongzheng Pan, Yew Wei Leong , Fangzhi Chen	#1020: Thermoplastic Vulcanizates Based on Peroxide Induced Dynamic Vulcanization of PA12/PDMS-Blends Influence of Peroxide and Mixing Parameters on TPV Characteristics Sven Wiessner , Tuhin Chatterjee, Kinsuk Naskar	Workshop 1. Electrospinning of nanofibers and its applications Kotaki M (Kaneka Inc./Kyoto Institute of Technology) Sugimoto M (Yamagata University) Wang C (National Cheng Kung University)

14:20-14:40	<p>#1041: Design and Analysis of A 3-Kw Horizontal Axis Wind Turbine Blade Assembled with Injection Molding Parts <u>Ming-Tsung Sun,</u> <u>Jia-Fong Tsai,</u> <u>Jen-Fu Lee</u></p>	<p>#1021: Prediction of Viscoelastic Properties Using Non-equilibrium Molecular Dynamics Simulations <u>Huan-Chang Tseng,</u> <u>Yuan-Jung Chang,</u> <u>Chia-Hsiang Hsu,</u> <u>Tzu-Chang Wang,</u> <u>Rong-Yeu Chang</u></p>	<p>#1036: Effect Of Wheat Chaff Loading and Size on the Mechanical/Foaming Properties of Microcellular Injection Molded Hdpegma/Wheat Chaff Composites <u>Shyh-shin Hwang,</u> <u>Peiming Hsu,</u> <u>Ray-bin Yang</u></p>	<p>#1104: Synthesis of Polyurethanes Crosslinked by Methylated Polyritaxanes and their Properties <u>Hiroto Murakami,</u> <u>Natsumi Nonaka,</u> <u>M. Fukushima,</u> <u>R. Baba, N. Nonaka</u></p>	
14:40-15:00	<p>#1046: Development of Thin Wall Injection Molding Technology for Soft-touch Instrument Panel Skin <u>Atsushi Mizutai,</u> <u>T. Takeshi, K. Ishi,</u> <u>K. Tokumo, M. Suhara, K. Kobune</u></p>	<p>#1027: Simulation of the Unbalanced Flow Behavior of the Core Material in Co-injection Multi-cavity Molding <u>Hsiu-Hui Jackie Yang,</u> <u>Ying-Mei May Tsai,</u> <u>Wei Lun Liao,</u> <u>Hsiu-Chun Lin,</u> <u>CT Huang</u></p>	<p>#1044: Process and Characterisation of Polylactide/Marine Algae Composites <u>Tung-Yi Wu,</u> <u>Ming-Chien Yang</u></p>	<p>#1029: Mechanical and Optical Properties of Polycarbonate Containing Metal Salt <u>Azusa Miyagawa,</u> <u>Shogo Nobukawa</u> <u>M. Yamaguchi</u></p>	
15:00-15:20	<p>#1078: Measurements of Heat Flows of Anionic Ring-opening Polymerization and Crystallization of Epsilon-Caprolactam at a Bulk Polymerization <u>Kentaro Taki,</u> <u>Naoko Shoji,</u> <u>Tetsuo Takayama,</u> <u>Hiroshi Ito,</u> <u>Masatoshi Kobayashi</u></p>	<p>1055: Micromechanical Model of the Viscoelastic Properties of Plain Weave Polymer Matrix Composites <u>Yingjie Xu,</u> <u>P. Zhang</u></p>	<p>#1082: Formability of Bamboo Fabric-Reinforced Thermoplastic Composites <u>N. F. Mohammad Rawi,</u> <u>Krishnan Jayaraman,</u> <u>D. Bhattacharyya</u></p>	<p>#1034: Effect of Adding Polysilane on Heat Fusion Properties of Polypropylene <u>Katsuhisa Tokumitsu,</u> <u>Asuka Hayashi,</u> <u>Sakiko Fukunishi, K. Takano,</u> <u>Masami Okamoto</u></p>	

15:20-15:40	#1081: Precise Injection Molding of Tpes-evaluation of Surface Replication and Metal Adhesion Kenji Ohnami, Tetsuo Takayama, Kentaro Taki, Hiroshi Ito, Daiki Funaoka, Kenji Shiga	#1079: Non-linear Structural Analysis of Injection Molded Composites Considering Process Induced Fiber Orientations <u>F. S. Costa</u> , Emmett Nelson, Don Robbins, Russell Speight	#1096: Improvement on Fire Retardancy of Wood Flour/Polypropylene Composites Using Modified Wood Flour <u>Yuta Tomita</u> , Yukinori Sano, Yoshihiko Arao, Kyouhei Takakuwa, Hideo Nakamura, Toshikazu Umemura, Tatsuya Tanaka	#1111: Effect of Affinity of Grafted Polymer on the Viscoelasticity and Film Processability of PMMA Blended Core-Shell Rubber <u>Keisuke Hatano</u> , Masataka Sugimoto	
15:40-16:00	#1116: Effects of Material Properties on the Surface Replication of Polypropylene by Precise Injection Molding Y. Takai, <u>Tetsuo Takayama</u> , K. Taki, H. Ito, A. Takai, S. Sonobe	#1100: Construction of The Prediction Model for Relative Crystallinity Distribution of the Cast Film with Induction Time <u>Takeharu Isaki</u> , Hiroshi Okumura, Kazuki Mita	#1097: Mechanical Performance of Injection-molded PBS/Bamboo Fiber Green Composites <u>Hitoshi Takagi</u> , K. Ohkita	#1115: Phase Separation Behavior of Pnipaam/Pdlla Solutions in Dmf Solvent Pei-Fang Tang, <u>Chi Wang</u>	
16:00-16:20	Coffee Break				
16:20-16:40	#1009: Development of Hydrophilic Polypropylene Microporous Membranes Amir Saffar, Musa Kamal, Pierre J. Carreau, <u>Abdellah Aji</u>	#1143: Study on Flow-characteristics and Quality Improvement of the Metal Powder Injection Molding by Using Gas Counter Pressure Technology <u>Chia-Liang Hsu</u> , Shia-Chung Chen, Chia-Liang Hsu	#1012: Optical Property of Cyclo Olefin Copolymer Foam Sheet <u>Chang-Ming Wong</u> , Yen-Chen Lin, Ang-Ta Tasi	#1136: Design and Development of an Offset Lightweight Polymeric Orthotic Knee Joint <u>Priyanka Singh</u> , Mayank Dwivedi, Naresh Bhatnagar, Anup K. Ghosh	

16:40-17:00	<p>#1037: Surface-modified Electrospun Polymeric Nanofiber Mats for Proton Exchange Membranes H.Y. Li, Y.Y. Lee, W.C. Su, <u>Ying-Ling Liu</u></p>	<p>#1147: Constitutive and Finite Element Modeling of Polymeric Materials and its Application in Aerospace Structures <u>Uzair Ahmed Dar</u>, Y.J. Xu, W. H. Zhang</p>	<p>#1056: Supercritical Critical Fluids Assisted Microcellular Foaming and Electroless Plating of Acrylonitrile Butadiene Styrene (ABS) Siwach Tengsuwan, Y. Wakebe, Shota Ishihara, <u>Masahiro Ohshima</u></p>	<p>#1197: Mixed Morphology of Double Ring-Banded and Fibrous Patterns in Poly(Butylene Succinate) Blended With Poly(Ethylene Oxide) Yahya Happy Mandala, Hikmatun Ni'mah, <u>Eamor M Woo</u></p>	
17:00-17:20	<p>#1141: Studies on Cross-linked Membranes Based on Speek and PVA/FQDs Fuel Cell Applications Rajender Malik, <u>Veena Choudhary</u>,</p>	<p>#1167: Geometry Optimization of Rotationally Molded Parts by Artificial Neural Network <u>Yau-Zen Chang</u>, Jung-Fu Hou, Ming-Hsi Hsu, Shih-Jung Liu</p>	<p>#1135: Co2 Induced Crystallization and its Process of Fibrillation of Crystalline Poly(Lactic Acid) Sabapathy Sankar, <u>Anup K Ghosh</u></p>	<p>#1207: Crystallization Behavior of Poly(L-Lactide) and Poly(D-Lactide) Huan-Chieh Ko, Tzu-Ming Wu, <u>Tien-Wei Shyr</u></p>	
17:20-17:40	<p>#1220: Clarity Enhancement of Polyethylene Film for Fresh Produce Packaging <u>Bongkot Hararak</u>, Noppadon Kerddonfag, Pramote Kumsang, Sripethdee Chao Rojsatean Jareenuch, Wannee Chinsirikul</p>	<p>#1176: Seamless Integration of Cad and Cae for Injection Molding <u>Wen-Ren Jong</u>, Chia-Hsiang Hsu, Kang-Hsi Tseng, Dar-Der Hsieh, Yu-Hung Ting, Yu-Wei Chen</p>	<p>#1169: Preparation of Microporous Thermoplastic Polyurethane by Supercritical Co2 Foaming Sheng-Ping Peng, Ting-Wei Kang, Chien-Chia Chu, <u>Shu-Kai Yeh</u></p>	<p>#1015: Modified Polylactic Acid for Environmental Friendly Packing Films Fabrication Hsiu-Yu Cheng, Yin-Ju Yang, Shu-Chen Li, <u>Guang-Way Jang</u></p>	

17:40-18:00	<p>#1221: Biaxial Deformation Behavior of Polypropylene Containing β-Form Crystal under Different Stretching Temperatures and Films' Properties <u>Noppadon Kerddonfag</u>, Pramote Kumsang, Charinee Winotapun, Bongkot Hararak, Onusa Saravari, Wannee Chinsirikul</p>	<p>#1179: Cae Verification on Gas-counter Pressure Mechanism In Gas-assisted Injection Molding <u>Wen-Ren Jong</u>, Chien-Chou Wu, Chi-Hung Kao, Yan-Mao Huang, Kui-Yu Li</p>	<p>#1211: Cryogenic Behavior of Foam-based Insulation Materials Seong-Bo Park, Jeong-Hyeon Kim, <u>Jae-Myung Lee</u></p>	<p>#1038: Physical Changes of Poly(Lactic Acid) Induced by Water Sorption <u>Roberto Pantani</u>, Felice De Santis</p>	
18:00-20:00	Poster				

Wednesday, November 19					
Venue	Conference Hall A				
08:30-09:20	#1175: Challenges and Prospects for Quantitative Predictive Modeling in Cast and Blown Film Extrusion <u>John Vlachopoulos</u>				
09:20-10:10	#1231: Recent Topics on Advanced Experimental Analysis Technologies and their Application to Unknown Injection Molding Phenomena <u>Hidetoshi Yokoi</u>				
10:10-10:30	Coffee Break				
Venue	Conference Hall A		Conference Hall B		
10:30-11:00	#1091: Phase Structure Evolution and Rheological Response of Polymer Blends in the Presence of Nanoparticles <u>Guangxian Li</u> , Yajiang Huang, M.Q. Kong, G.L. Chen, Q. Yang		#1004: Role of Nanoclay Addition in Morphology Development of Natural Rubber Based Polyblends and Foams Natinee Lopattananon, S. Tanglakwaraskul, J. Julyanon, A. Masa, <u>Tadamoto Sakai</u>		
11:00-11:30	#1223: Polymer Processing in Europe – Where Does It Go To? <u>Clemens Holzer</u> , S. Schuschnigg, I. Duretek, T. Lucyshyn, S. Laske		#1058: Improvement of Polypropylene Biaxial Stretchability by Crystallization Control <u>Toshitaka Kanai</u> , S. Ohno, T. Yamada, T. Takebe		
11:30-12:00	#1155: A Fast 2D Predictive Control Algorithm for Injection Molding Process Bo Yang, Yi Yang, <u>Furong Gao</u>		#1173: Self-reinforced Materials: Manufacturing, Properties and Their Potential for Lightweight Composites Hans Peter Heim, Bjoern Rohde		
12:00-13:10	Lunch Time				
Venue	M103		M105		
13:10-13:40	#1177: Development of the Advanced Mould to Encourage Green Manufacturing Technology – Applications to Energy Saving and Energy Harvesting System <u>Dong Gyu Ahn</u>		#1132: Fundamental Studies of Interfacial Rheology at Multilayered Model Polymers for Coextrusion Process Huagui Zhang, Khalid Lamnawar, <u>Abderrahim Maazouz</u>		
Venue	M103	M102	M105	M106	M104
13:40-14:00	#1018: Preparation and Visible Light Photocatalytic Property of Polyacrylonitrile Nanofibers Containing Rare Earth Element-doped Titanium Dioxide Nanoparticles <u>Chuanxiang Qin</u> , L. Qin, H.F. Chen, J. Sun, L.X. Dai, G.Q. Chen, T. Lin	#1117: Numerical Prediction of Fiber Orientation in Injection Molded Short-fiber/Thermoplastic Composite Parts with Experimental Validation Thanh Binh Nguyen Thi, Mizuki Morioka, <u>Atsushi Yokoyama</u> , Senji Hamanaka, Katsuhisa Yamashita, Chisato Nonomura	#1128: Reinforcing and Thermal Stabilizing Effects of Polyhedral Oligomeric Silsesquioxane (POSS) Modified Clay in Polyamide 11 Composites Shengqin Wang, Mohit Sharma, <u>Yew Wei Leong</u>	#1061: Characterization of Viscoelastic Constitutive Behavior of Polymer Dielectric Thin Film Y.T. Lee, <u>T.C. Chiu</u>	Workshop 2. Advanced molding technologies Chang RY (National Tsing Hua University) Ito H (Yamagata University) Vlachopoulos J (McMaster University)

14:00-14:20	<p>#1022: Simulation of Fiber Orientation and Fiber Length in Injection Molding of Fiber-reinforced Composites <u>Huan-Chang Tseng</u>, Ke-Wen Chen, Jiann-Shing Wu, Rong-Yeu Chang</p>	<p>#1118: Effect of Screw Geometries on Fiber Length and Dispersion of Frtp in Injection Molding <u>So Shimokusuzono</u>, Akimitsu Iwasaki, Akira Inoue, Yoshihiko Arao, Tatsuya Tanaka</p>	<p>#1145: Mechanical and Adhesive Wear Performance of Sic Whisker Reinforced Polyamide 11 Hybrids Mohit Sharma, Shengqin Wang, <u>Yew Wei Leong</u></p>	<p>#1149: Determination of Strength for Thin 3D-TSV Memory Chips Using Pin-on-Elastic-Foundation Test P. S. Huang, Y. C. Chao, <u>H.T. Keng</u>, M. Y. Tsai, P. C. Lin</p>
14:20-14:40	<p>#1026: Preparation of PVA Micro/Nano Composite Fibers: Core Fiber Doped with Silver Nanowires and Sheath Fiber Prepared by Electrospinning H.F. Chen, L.L. Lu, <u>Lixing Dai</u></p>	<p>#1225: Analysis on the Generation Process of Irregular Brightness Change Pattern Appeared on Textured Molding Surfaces <u>Norimichi Masuda</u>, Hidetoshi Yokoi</p>	<p>#1181: Study on the Preparation and Characterization of Different Nano Inorganic Layered Materials/Poly (Ethylene Terephthalate) Nanocomposites Through the Microcompounding <u>Tsung Yen Tsai</u>, Jun-Ru Laio, Naveen Bunekar</p>	<p>#1150: Thermal Behaviors of LED Backlight Module C. E. Zheng, Y. L. Peng, <u>Yu-Hua Chang</u>, M. Y. Tsai, Y. Y. Tsai, C. H. Chen</p>
14:40-15:00	<p>#1045: Photografting, Microstructure and Water Wettability of the Knitted and the Woven Polyester Fabrics Xiaoli Shi, Li Ai, Zhijuan Pan, <u>Xinsheng Zhu</u></p>	<p>#1226: Visualization Analysis of 3D Resin Flow Phenomena in Injection Mold Using Bright Flakes as Tracers <u>Atsuhiko Maeda</u>, Hidetoshi Yokoi</p>	<p>#1198: Effect of Acetone Treatment in Mechanical Properties of Cfrtp Made from CF/PA Composite Yarn Sutured to PA Fiber <u>Hiroaki Kimura</u>, Takashi Matsuoka, Tomoko Hirayama, Hiroyuki Fujita, Yasuji Miyata, Kunio Fuji</p>	<p>#1193: Enhancement of Thermal Conductivity of Epoxy by Filling with AlN Particles Jeng Shung Lin, <u>Shyan-Lung Chung</u></p>

15:00-15:20	#1064: Biodegradable Hemostatic Nanofibers of Poly(Caprolactone) and Cuttlefish Bone <u>Seimei Shiratori,</u> M. Yanagiya, K. H. Kyung, J.Y.Park, S. H. Kim	#1227: Measurement of Demolding Resistance in Direction Vertical to Toranscribed Surface without Bending Deformation of Molded Product <u>Taito Ueda,</u> Hidetoshi Yokoi	#1212: Low-temperature Mechanical Characteristics of Polymers for Pipelines Using in Ship and Offshore Structures <u>Jae-Myung Lee,</u> Won-Do Jung, Jeong-Hyeon Kim	#1101: Prediction of Glass Fiber Dispersion in a Twin-screw Extruder Using a Three-dimensional Flow Simulation <u>Toshihisa Kajiwara,</u> K. Hirata, H. Ishida, M. Hiragori, Y. Nakayama
15:20-15:40	#1094: Temperature Effect on the Preparation of Pnipaam Electrospun Fibers and its Rheological Properties Ya-Chen Chuang, <u>Chi Wang</u>	#1229: Visualization Analysis on Plastication Process of Long Glass Fiber Reinforced Resin with Different Compression-ratio Screws <u>Sai Ma,</u> Kazuyuki Shibata, Hidetoshi Yokoi	#1017: Nonisothermal Crystallization and Melting Behavior of Poly(Ethylene Naphthalate) with a Non-bell Distribution of Crystal Growth Rates <u>Ming Chen,</u> Jian-Ren Wang	#1113: The Visualisation of Optimal Coating Mill Base Flow Patterns in Basket Mill Using Fractal Models. <u>Anup K Ghosh,</u> Aresh Sarkar
15:40-16:00	#1098: Electrospun Core-shell and Multi-core Shell Nanofibers Preparing From Pnipaam/Pdlla Phase-separated Solution <u>Chi Wang,</u> Huang-Hsien Chiang	#1230: Visualization Analysis of Cavity Filling Phenomenon with Polypropylene in Hot Runner Mold <u>Hao Chang,</u> Y. Kanetoh, Hidetoshi Yokoi	#1233: Reactive Extrusion and Blown Film of Poly(lactic acid)/Poly(butylene adipate-co-terephthalate) Blends <u>Wanee Chinsirikul,</u> Jareenuch Rojsatean, Bongkot Hararak, Sripethdee Chao, Noppadon Kerddonfag	#1126: Dispersion Effect of Extensional Flow for PP/CNT Nano-composite with Blister Disk of Twin Screw Extruder <u>Koki Matsumoto,</u> Takayuki Morita, Yoshihiko Arao, Tatsuya Tanaka
18:00-21:00	Conference Hall A			

Thursday, November 20				
Venue	M103	M102	M105	M106
08:30-09:00		#1165: Concurrent Enhancement of Multiple Properties in Reactively Processed Nanobicomposites of Polylactide <u>Suprakas Sinha Ray</u>	#1024: Effects of Solvent Casting and Melt Intercalation Mixing Processes on Characteristics of Polylactide-nanographite Platelets Composites Esmaeil Narimissa, <u>Rahul K Gupta</u> , Nhol Kao, Hyoung Jin. Choi, Sati N. Bhattacharya	#1137: Hot-drawn Biodegradable Polyvinyl Alcohol (PVA)/Short Cellulose Nanofibrils (Scnf) Composite Films Jun Peng, Craig Clemons, <u>Lih-Sheng Turng</u>
09:00-09:20	#1105: Effects of Processing Parameters on Jet Thinning and Morphology of Electrospun Poly(N-Isopropylacrylamide) Nanofibers <u>Yu Wang</u> , Chi Wang	#1006: Polymer Nanomaterials: How to Prepare and How to Use Them? <u>Stoyko Fakirov</u> , Debes Bhattacharyya	#1106: Surface Wettability Change by Agglomeration Control of Silver Nano-particles <u>Takushi Saito</u> , Yusei Yokoyama, Tatsuya Kawaguchi, Isao Satoh	#1033: A Rheological Study on the Thermal Degradation of Biodegradable Poly(Propylene Carbonate) during Melt Processing S. S. Lin, <u>Wei Yu</u>
09:20-09:40	#1107: Fabrication of Porous Carbon Nanofibers for Electric Double Layer Capacitor <u>Takara Matsumoto</u> , Shinsuke Nagamine, Masahiro Ohshima	#1142: High-performance and Durable Inverted Organic Photovoltaics Incorporating Solution-processable Fluorescent Hyperbranched Polymer as an Interfacial Modified Layer <u>Ren Hao Lee</u> , Yi-Lin Tsai, Jian-Cheng Wang, Tzong-Yuan Juang, Chih-Ping Chen	#1120: Modification of Chemically Stable Polymeric Materials 44. Improvement in the Hydrophobic Property and Adhesion Property of Polymeric Materials and FRPS <u>Hitoshi Kanazawa</u> , Aya Inada	#1059: Improvement of Mechanical Toughness for Poly(Lactic Acid) by Changing Processing Conditions <u>Tong Huang</u> , Shogo Nobukawa, Masayuki Yamaguchi
09:40-10:00	#1138: Study On the Dyeing and Finishing Behaviors of Nano-Zno on Silk Fabrics with Tea Polyphenols <u>Wenli Wang</u> , Tingjuan Yi, Yan Wang, Qiming Wang	#1144: Individual Graphene Nanosheets through Electrolytic Exfoliation as an Efficient Hole Transport Layer in Polymer Solar Cell <u>Cheng Ming Hsieh</u> , Kuok-Fai Li, Sin-Rong Jhan, Li-Hung Lin, Tzong-Yuan Juang, Chih-Ping Chen	#1140: Development of an Electrostatic Separation Method for Plastic Recycling <u>Yuichi Matsuo</u> , Motofumi Mihara, Michio Murai	#1109: Development of Predictive Model for High Speed Dispersion of Coating Mill Base Rishi Sharma, Alesh Sarkar, <u>Anup K Ghosh</u>
10:00-10:20	Coffee Break			

10:20-10:40	<p>#1182: Formtion of β-form Crystals in High-speed Melt Spinning of Biodegradable PHBH <u>Qing Qin</u>, Wataru Takarada, Takeshi Kikutani</p>	<p>#1170: A Tough Composite from Hybrid Nanofillers <u>Warintorn Thitsartarn</u>, Chee Chuan Jayven Yeo, Chaobin He</p>	<p>#1191: Solvent Induced Infusion Behavior of Poly(Ethylene Terephthalate) Filaments during Cold Drawing <u>Rina Khanum</u>, Wataru Takarada, Arun Aneja, Takeshi Kikutani</p>	<p>#1032: Three Dimensional Orientation of Small Molecules in Cellulose Triacetate Film by Uni-Axial Stretching <u>Shogo Nobukawa</u>, Kultida Songsurang, Masayuki Yamaguchi</p>
10:40-11:00	<p>#1185: Mutual Interaction of Two Components in the Crystallization of Blend Fibers Consisting of Polypropylenes of Different Stereo Regularity <u>Kouya Kawai</u>, Yohei Kohri, Wataru Takarada, Tomoaki Takebe, Toshitaka Kanai, Takeshi Kikutani</p>	<p>#1195: Stretchable Conductors Based on Lignin-derived Electrospun Carbon Fibrous Mats <u>Xu Li</u>, Suxi Wang, Xikui Zhang, Chaobin He</p>	<p>#1201: Evaluation of Sealed Parts of Fluorine Film by Laser Advanced Welding of Plastics K. Ueda, K. Satoh, D. Maeda, <u>K. Yamada</u>, Y. Kurosaki</p>	<p>#1095: Control of Film Thickness of Tio2 Layer in Organic Solar Cell by Spray Layer-by-layer Method <u>Atthaporn Ariyarat</u>, Seimei Shiratori</p>
11:00-11:20	<p>#1187: Manufacturing Technique and Property Evaluations of Biodegradable Polyvinyl Alcohol Coronary Stents with Chitosan Coating <u>Shih-Ya Chou</u>, Jia-Horng Lin, Shih-Peng Wen, Ching-Wen Lou</p>	<p>#1206: Nanohole Processing in a Polymer Film with Gold Nanoparticles <u>Yamada Kazushi</u>, Y. Tsuboi</p>	<p>#1214: Hermetically Sealed Electron Beam Emitters for Polymer Processing – A Key Enabler for Inline Processing <u>Michael Biemann</u>, Ian Bland</p>	<p>#1180: High Definition and High Color Uniform Liquid Crystal Display with Surface Diffusing System Using Particle-precipitated Scattering Film <u>Yusuke Fujii</u>, Akihiro Tagaya, Yasuhiro Koike</p>
11:20-11:40	<p>#1192: Manufacturing Technique and Property Evaluations of Functional Fabric <u>Ting-An Lin</u>, Jia-Horng Lin, Ching-Wen Lou</p>	<p>#1217: The Size-dependent Transition Barrier of Silver Clusters <u>Yi-Kang Lan</u>, An Chung Su</p>	<p>#1210: Catalyst-free One-pot Synthesis of Polypyrazolines from Diazoesters and Maleic Anhydride <u>Xiangxiang Jia</u>, Lijian Liu</p>	<p>#1239: Rheological Modelling for The Early Stage of Polymer Crystallization C.H. Wu, <u>I-Kyang Yang</u></p>
11:40-12:00	<p>#1224: Analysis on Non-steady State Spun-bonding Process with Short Gap between Spinneret and Air Sucker <u>Wataru Takarada</u>, Renukarn Ruamsuk, YuanJing Zhang, Takeshi kikutani</p>			
12:00	Lunch Time			

Oral Sessions

Tuesday, November 18

Opening Ceremony

Time 8:10-8:30
Room Conference Hall A

Plenary Speaker

Time 08:50-09:40
Room Conference Hall A
Chair Su AC
Title **Morphology Evolutions during Polymer Processing of Thermoplastic Polymers**
Vito Speranza, Roberto Pantani, [Giuseppe Titomanlio](#)

Plenary Speaker

Time 9:40-10:30
Room Conference Hall A
Chair Kikutani T
Title **Influence of Employing Gas Counter Pressure on Various Injection Molding and Powder Injection Molding Processes**
[Shia-Chung Chen](#), Cheng-Chang Hsieh

Invited Presentations

Time 10:50-12:20
Room Conference Hall A
Chair Tsiang RCC

I1 #1199 **Surface and Interior Lamellae Assembly in Semicrystalline Polymers via Three-Dimensional Views on Periodical Birefringence Patterns**
[Eamor M Woo](#)

I2 #1171 **Superabsorbent Hydrogels Based on Renewable Monomer Tulipalin A**
[Jozef Kollár](#), Miroslav Mrlík, Daniela Moravčíková, Jaroslav Mosnáček, Igor Lacík

I3 #1168 **Fluorescence Dye-labelled Polymers Prepared by Nitroxide Mediated Radical Polymerization**
[Stefan Chmela](#), [Jozef Kollár](#), Ludmila Hrcckova

Invited Presentations

Time 10:50-12:20
Room Conference Hall B
Chair Ito H

I5 #1040 **Morphology-Controlled, Multiple Shape-memory Behavior of Heterogeneous Polymer Blends**
[Hans-Joachim Radusch](#), Igor Kolesov, Olexander Dolynchuk, Uwe Gohs, Gert Heinrich

I6 #1108 **Porphyrim-incorporated Low Band Gap Conjugated Polymers for Polymer Solar Cell Application**
[Chain-Shu Hsu](#)

I7 #1114 **Realizing High Performance in Poly(L-Lactide)/Elastomer Blends by Constructing Stereocomplex Crystallites at the Interface**
Hongwei Bai, [Qiang Fu](#)

G1. Injection molding

Time 13:30-16:00
Room M103
Chair Yoon K

I4 #1238 **Surface/Interface Problems of Polymeric Materials and New Photo-transformation Chemistries of Surface C-H**
[Wan-Tai Yang](#)

Oral #1028 **3D Volume Shrinkage Compensation Method in Mold Design Optimization**
Chen-Han Tseng, [CT Huang](#), Chia-Hsin Tien, Sung-Wei Huang

Oral #1041 **Design and Analysis of A 3-Kw Horizontal Axis Wind Turbine Blade Assembled with Injection Molding Parts**
[Ming-Tsung Sun](#), Jia-Fong Tsai, Jen-Fu Lee

Oral #1046	Development of Thin Wall Injection Molding Technology for Soft-touch Instrument Panel Skin <u>Atsushi Mizutai</u> , T. Takeshi, K. Ishi, K. Tokumo, M. Suhara, K. Kobune
Oral #1078	Measurements of Heat Flows of Anionic Ring-opening Polymerization and Crystallization of Epsilon-caprolactam at a Bulk Polymerization <u>Kentaro Taki</u> , Naoko Shoji, Tetsuo Takayama, Hiroshi Ito, Masatoshi Kobayashi
Oral #1081	Precise Injection Molding of Tpes-evaluation of Surface Replication and Metal Adhesion Kenji Ohnami, Tetsuo Takayama, Kentaro Taki, <u>Hiroshi Ito</u> , Daiki Funaoka, Kenji Shiga
Oral #1116	Effects of Material Properties on the Surface Replication of Polypropylene by Precise Injection Molding Y.Takai, <u>Tetsuo Takayama</u> , K.Taki, H.Ito, A.Takai, S. Sonobe

G10. Modeling and simulation, S5. Novel processing technologies

Time	14:00-16:00
Room	M102
Chair	Kajawara T
Oral #1194	Laser-assisted Replication of Large-area Nanostructures and Antireflection Surface <u>Keisuke Nagato</u> , Ken Takahashi, Masayuki Nakao
Oral #1021	Prediction of Viscoelastic Properties Using Non-equilibrium Molecular Dynamics Simulations <u>Huan-Chang Tseng</u> , Yuan-Jung Chang, Chia-Hsiang Hsu, Tzu-Chang Wang, Rong-Yeu Chang
Oral #1027	Simulation of the Unbalanced Flow Behavior of the Core Material in Co-injection Multi-cavity Molding Hsiu-Hui Jackie Yang, Ying-Mei May Tsai, Wei Lun Liao, Hsiu-Chun Lin, <u>CT Huang</u>
Oral #1055	Micromechanical Model of the Viscoelastic Properties of Plain Weave Polymer Matrix Composites <u>Yingjie Xu</u> , P. Zhang
Oral #1079	Non-linear Structural Analysis of Injection Molded Composites Considering Process Induced Fiber Orientations <u>Franco S. Costa</u> , Emmett Nelson, Don Robbins, Russell Speight
Oral #1100	Construction of the Prediction Model for Relative Crystallinity Distribution of the Cast Film with Induction Time <u>Takeharu Isaki</u> , Hiroshi Okumura, Kazuki Mita

G6. Polymer composites

Time	13:30-16:00
Room	M105
Chair	Rwei SP
Oral #1154	Evaluation of Long-term Performance of Polyethylene Pipes for Gas Distribution <u>Hiroyuki Nishimura</u> , Yamada Kazushi, Kazuhisa Igawa, Yuji Higuchi
Oral #1125	Infrared Reflective and Thermally Insulative Coatings for Aluminum Window Frames Yongzheng Pan, <u>Yew Wei Leong</u> , Fangzhi Chen
Oral #1036	Effect of Wheat Chaff Loading and Size on the Mechanical/Foaming Properties of Microcellular Injection Molded Hdpegma/Wheat Chaff Composites <u>Shyh-shin Hwang</u> , Peiming Hsu, Ray-bin Yang
Oral #1044	Process and Characterisation of Polylactide/Marine Algae Composites <u>Tung-Yi Wu</u> , Ming-Chien Yang
Oral #1082	Formability of Bamboo Fabric-reinforced Thermoplastic Composites N. F. Mohammad Rawi, <u>Krishnan Jayaraman</u> , D. Bhattacharyya
Oral #1096	Improvement on Fire Retardancy of Wood Flour/Polypropylene Composites Using Modified Wood Flour <u>Yuta Tomita</u> , Yoshihiko Arao, Kyouhei Takakuwa, Hideo Nakamura, Toshikazu Umemura, Tatsuya Tanaka, Yukinori Sano
Oral #1097	Mechanical Performance of Injection-molded PBS/Bamboo Fiber Green Composites <u>Hitoshi Takagi</u> , K. Ohkita

G3. Rubber and elastomers, G5. Polymer blends and alloys

Time	14:00-16:00
Room	M106
Chair	Yeh JT
Oral #1020	Thermoplastic Vulcanizates Based on Peroxide Induced Dynamic Vulcanization of PA12/PDMS-blends Influence of Peroxide and Mixing Parameters on TPV Characteristics <u>Sven Wiessner</u> , Tuhin Chatterjee, Kinsuk Naskar
Oral #1104	Synthesis of Polyurethanes Crosslinked by Methylated Polyritaxanes and their Properties <u>Hiroto Murakami</u> , Natsumi Nonaka, M. Fukushima, R. Baba
Oral #1029	Mechanical and Optical Properties of Polycarbonate Containing Metal Salt <u>Azusa Miyagawa</u> , Shogo Nobukawa, Masayuki Yamaguchi
Oral #1034	Effect of Adding Polysilane on Heat Fusion Properties of Polypropylene <u>Katsuhisa Tokumitsu</u> , Asuka Hayashi, Sakiko Fukunishi, Kohno Kazufumi, Masami Okamoto
Oral #1111	Effect of Affinity of Grafted Polymer on the Viscoelasticity and Film Processability of PMMA Blended Core-shell Rubber <u>Keisuke Hatano</u> , Masataka Sugimoto
Oral #1115	Phase Separation Behavior of Pnipaam/Pdlla Solutions in DMF Solvent Pei-Fang Tang, <u>Chi Wang</u>

Workshop 1. Electrospinning of nanofibers and its applications

Time	14:00-16:00
Room	M104
Chair	Wang C Kotaki M (Kaneka Inc./Kyoto Institute of Technology) Sugimoto M (Yamagata University) Wang C (National Cheng Kung University)

G8. Membrane/Film technology

Time	16:20-18:00
Room	M103
Chair	Lue SJ
Oral #1009	Development of Hydrophilic Polypropylene Microporous Membranes Amir Saffar, Musa Kamal, Pierre J. Carreau, <u>Abdellah Aji</u>
Oral #1037	Surface-modified Electrospun Polymeric Nanofiber Mats for Proton Exchange Membranes H.Y. Li, Y.Y. Lee, W.C. Su, <u>Ying-Ling Liu</u>
Oral #1141	Studies on Cross-linked Membranes Based on Speek and PVA/FQDs Fuel Cell Applications Rajender Malik, <u>Veena Choudhary</u>
Oral #1220	Clarity Enhancement of Polyethylene Film for Fresh Produce Packaging <u>Bongkot Hararak</u> , Noppadon Kerddonfag, Pramote Kumsang, Sripethdee Chao Rojsatean Jareenuch, Wannee Chinsirikul
Oral #1221	Biaxial Deformation Behavior of Polypropylene Containing β-form Crystal under Different Stretching Temperatures and Films' Properties <u>Noppadon Kerddonfag</u> , Pramote Kumsang, Charinee Winotapun, Bongkot Hararak Wannee Chinsirikul, Onusa Saravari

G10. Modeling and simulation

Time	16:20-18:00
Room	M102
Chair	Jong WR
Oral #1143	Study on Flow-characteristics and Quality Improvement of the Metal Powder Injection Molding by Using Gas Counter Pressure Technology <u>Chia-Liang Hsu</u> , Shia-Chung Chen, Chia-Liang Hsu
Oral #1147	Constitutive and Finite Element Modeling of Polymeric Materials and its Application in Aerospace Structures <u>Uzair Ahmed Dar</u> , Y.J. Xu, W. H. Zhang
Oral #1167	Geometry Optimization of Rotationally Molded Parts by Artificial Neural Network <u>Yau-Zen Chang</u> , Jung-Fu Hou, Ming-Hsi Hsu, Shih-Jung Liu

Oral #1176	Seamless Integration of Cad and Cae for Injection Molding <u>Wen-Ren Jong</u> , Chia-Hsiang Hsu, Kang-Hsi Tseng, Dar-Der Hsieh, Yu-Hung Ting, Yu-Wei Chen
Oral #1179	Cae Verification on Gas-counter Pressure Mechanism in Gas-assisted Injection Molding <u>Wen-Ren Jong</u> , Chien-Chou Wu, Chi-Hung Kao, Yan-Mao Huang, Kui-Yu Li

S6. Polymer foams

Time	16:20-18:00
Room	M105
Chair	Wong CM
Oral #1012	Optical Property of Cyclo Olefin Copolymer Foam Sheet <u>Chang-Ming Wong</u> , Yen-Chen Lin, Ang-Ta Tasi
Oral #1056	Supercritical Critical Fluids Assisted Microcellular Foaming and Electroless Plating of Acrylonitrile Butadiene Styrene (ABS) Siwach Tengsuwan, Y. Wakebe, Shota Ishihara, <u>Masahiro Ohshima</u>
Oral #1135	CO₂ Induced Crystallization and its Process of Fibrillation of Crystalline Poly(Lactic Acid) Sabapathy Sankar, <u>Anup K Ghosh</u>
Oral #1169	Preparation Of Microporous Thermoplastic Polyurethane by Supercritical CO₂ Foaming Sheng-Ping Peng, Ting-Wei Kang, Chien-Chia Chu, <u>Shu-Kai Yeh</u>
Oral #1211	Cryogenic Behavior of Foam-based Insulation Materials Seong-Bo Park, Jeong-Hyeon Kim, <u>Jae-Myung Lee</u>

G5. Polymer blends and alloys, S4. Benign polymers

Time	16:20-18:00
Room	M106
Chair	Pantani R
Oral #1136	Design and Development of an Offset Lightweight Polymeric Orthotic Knee Joint <u>Priyanka Singh</u> , Mayank Dwivedi, Naresh Bhatnagar, Anup K Ghosh
Oral #1197	Mixed Morphology of Double Ring-banded and Fibrous Patterns in Poly(Butylene Succinate) Blended with Poly(Ethylene Oxide) Yahya Happy Mandala, Hikmatun Ni'mah, <u>Eamor M Woo</u>
Oral #1207	Crystallization Behavior of Poly(L-Lactide) and Poly(D-Lactide) Huan-Chieh Ko, Tzu-Ming Wu, <u>Tien-Wei Shyr</u>
Oral #1015	Modified Polylactic Acid for Environmental Friendly Packing Films Fabrication Hsiu-Yu Cheng, Yin-Ju Yang, Shu-Chen Li, <u>Guang-Way Jang</u>
Oral #1038	Physical Changes of Poly(Lactic Acid) Induced by Water Sorption Roberto Pantani, Felice De Santis

Oral Sessions

Wednesday, November 19

Plenary Speaker	
Time	08:30-09:20
Room	Conference Hall A
Chair	Ajji A
Title	Challenges and Prospects for Quantitative Predictive Modeling in Cast and Blown Film Extrusion <u>John Vlachopoulos</u>
Plenary Speaker	
Time	09:20-10:10
Room	Conference Hall A
Chair	Chang RY
Title	Recent Topics on Advanced Experimental Analysis Technologies and their Application to Unknown Injection Molding Phenomena <u>Hidetoshi Yokoi</u>
Invited Presentations	
Time	10:30-12:00
Room	Conference Hall A
Chair	Ohshima M
I9 #1091	Phase Structure Evolution and Rheological Response of Polymer Blends in the Presence of Nanoparticles <u>Guangxian Li</u> , Yajiang Huang, M.Q. Kong, G.L. Chen, Q. Yang
I10 #1223	Polymer Processing in Europe – Where Does It Go To? <u>Clemens Holzer</u> , S. Schuschnigg, I. Duretek, T. Lucyshyn, S. Laske
I11 #1155	A Fast 2D Predictive Control Algorithm for Injection Molding Process Bo Yang, Yi Yang, <u>Furong Gao</u>
Invited Presentations	
Time	10:30-12:00
Room	Conference Hall B
Chair	Yang SY
I13 #1004	Role of Nanoclay Addition in Morphology Development of Natural Rubber Based Polyblends and Foams Natinee Lopattananon, S. Tanglakwaraskul, J. Julyanon, A. Masa, <u>Tadamoto Sakai</u>
I14 #1058	Improvement of Polypropylene Biaxial Stretchability by Crystallization Control <u>Toshitaka Kanai</u> , S. Ohno, T. Yamada, T. Takebe
I15 #1173	Self-reinforced Materials: Manufacturing, Properties and Their Potential for Lightweight Composites <u>Hans Peter Heim</u> , Bjoern Rohde
G7. Fibers and fiber processing	
Time	13:10-16:00
Room	M103
Chair	Shyr TW
I12 #1177	Development of the Advanced Mould to Encourage Green Manufacturing Technology—applications to Energy Saving and Energy Harvesting System <u>Dong Gyu Ahn</u>
Oral #1018	Preparation and Visible Light Photocatalytic Property of Polyacrylonitrile Nanofibers Containing Rare Earth Element-doped Titanium Dioxide Nanoparticles <u>Chuanxiang Qin</u> , L. Qin, H.F. Chen, J. Sun, L.X. Dai, G.Q. Chen, T. Lin
Oral #1022	Simulation of Fiber Orientation and Fiber Length in Injection Molding of Fiber-reinforced Composites <u>Huan-Chang Tseng</u> , Yuan-Jung Chang, Chia-Hsiang Hsu, Rong-Yeu Chang, Ke-Wen Chen
Oral #1026	Preparation of PVA Micro/Nano Composite Fibers: Core Fiber Doped with Silver Nanowires and Sheath Fiber Prepared by Electrospinning H.F. Chen, L.L. Lu, <u>Lixing Dai</u>

Oral #1045	Photografting, Microstructure and Water Wettability of the Knitted and the Woven Polyester Fabrics Xiaoli Shi, Li Ai, Zhijuan Pan, <u>Xinsheng Zhu</u>
Oral #1064	Biodegradable Hemostatic Nanofibers of Poly(Caprolactone) and Cuttlefish Bone <u>Seimei Shiratori</u> , M. Yanagiya, K. H. Kyung, J.Y.Park, S. H. Kim
Oral #1094	Temperature Effect on the Preparation of Pnipaam Electrospun Fibers and its Rheological Properties Ya-Chen Chuang, <u>Chi Wang</u>
Oral #1098	Electrospun Core-shell and Multi-core Shell Nanofibers Preparing from Pnipaam/Pdlla Phase-separated Solution <u>Chi Wang</u> , Huang-Hsien Chiang

G1. Injection molding

Time	13:40-16:00
Room	M102
Chair	Yu W
Oral #1117	Numerical Prediction of Fiber Orientation in Injection Molded Short-fiber/Thermoplastic Composite Parts with Experimental Validation Thanh Binh Nguyen Thi, Mizuki Morioka, <u>Atsushi Yokoyama</u> , Senji Hamanaka Katsuhisa Yamashita, Chisato Nonomura
Oral #1118	Effect of Screw Geometries on Fiber Length and Dispersion of Frtp in Injection Molding <u>So Shimokusuzono</u> , Akimitsu Iwasaki, Akira Inoue, Yoshihiko Arao, Tatsuya Tanaka
Oral #1225	Analysis on the Generation Process of Irregular Brightness Change Pattern Appeared on Textured Molding Surfaces <u>Norimichi Masuda</u> , Hidetoshi Yokoi
Oral #1226	Visualization Analysis of 3D Resin Flow Phenomena in Injection Mold Using Bright Flakes as Tracers <u>Atsuhiko Maeda</u> , Hidetoshi Yokoi
Oral #1227	Measurement of Demolding Resistance in Direction Vertical to Toranscribed Surface without Bending Deformation of Molded Product <u>Taito Ueda</u> , Hidetoshi Yokoi
Oral #1229	Visualization Analysis on Plastication Process of Long Glass Fiber Reinforced Resin with Different Compression-ratio Screws <u>Sai Ma</u> , Kazuyuki Shibata, Hidetoshi Yokoi
Oral #1230	Visualization Analysis of Cavity Filling Phenomenon with Polypropylene in Hot Runner Mold <u>Hao Chang</u> , Hidetoshi Yokoi

G6. Polymer composites, G11. Monitoring and characterization

Time	13:10-16:00
Room	M105
Chair	Sinha Ray S
I16 #1132	Fundamental Studies of Interfacial Rheology at Multilayered Model Polymers for Coextrusion Process Huagui Zhang, Khalid Lamnawar, <u>Abderrahim Maazouz</u>
Oral #1128	Reinforcing and Thermal Stabilizing Effects of Polyhedral Oligomeric Silsesquioxane (POSS) Modified Clay in Polyamide 11 Composites Shengqin Wang, Mohit Sharma, <u>Yew Wei Leong</u>
Oral #1145	Mechanical and Adhesive Wear Performance of Sic Whisker Reinforced Polyamide 11 Hybrids Composites Mohit Sharma, Shengqin Wang, <u>Yew Wei Leong</u>
Oral #1181	Study on the Preparation and Characterization of Different Nano Inorganic Layered Materials/Poly (Ethylene Terephthalate) Nanocomposites through the Microcompounding <u>Tsung Yen Tsai</u> , Naveen Bunekar, Jun-Ru Laio
Oral #1198	Effect of Acetone Treatment in Mechanical Properties of CFRTP Made from CF/PA Composite Yarn Sutured to PA Fiber <u>Hiroaki Kimura</u> , Takashi Matsuoka, Tomoko Hirayama, Hiroyuki Fujita, Yasuji Miyata Kunio Fuji
Oral #1212	Low-temperature Mechanical Characteristics of Polymers for Pipelines Using in Ship and Offshore Structures <u>Jae-Myung Lee</u> , Won-Do Jung, Jeong-Hyeon Kim

Oral #1017	Nonisothermal Crystallization and Melting Behavior of Poly(Ethylene Naphthalate) with a Non-bell Distribution of Crystal Growth Rates <u>Ming Chen</u> , Jian-Ren Wang
Oral #1233	Reactive Extrusion and Blown Film of Poly(Lactic Acid)/Poly(Butylene Adipate-co-terephthalate) Blends <u>Wanee Chinsirikul</u> , Jareenuch Rojsatean, Bongkot Hararak, Sripethdee Chao, Noppadon Kerddonfag
G9. Mixing and compounding, S1. Electronic packaging	
Time	13:40-16:00
Room	M106
Chair	Tsai MY
Oral #1061	Characterization of Viscoelastic Constitutive Behavior of Polymer Dielectric Thin Film Y.T. Lee, <u>T.C. Chiu</u>
Oral #1149	Determination of Strength for Thin 3D-TSV Memory Chips Using Pin-on-Elastic-Foundation Test P. S. Huang, Y. C. Chao, <u>Huai-Te Keng</u> , M. Y. Tsai, P. C. Lin
Oral #1150	Thermal Behaviors of LED Backlight Module C. E. Zheng, Y. L. Peng, <u>Yu-Hua Chang</u> , M. Y. Tsai, Y. Y. Tsai, C. H. Chen
Oral #1193	Enhancement of Thermal Conductivity of Epoxy by Filling with AlN Particles Jeng Shung Lin, <u>Shyan-Lung Chung</u>
Oral #1101	Prediction of Glass Fiber Dispersion in a Twin-screw Extruder Using a Three-Dimensional Flow Simulation <u>Toshihisa Kajiwara</u> , K. Hirata, H. Ishida, M. Hiragori, Y. Nakayama
Oral #1113	The Visualisation of Optimal Coating Mill Base Flow Patterns in Basket Mill Using Fractal Models. <u>Anup K Ghosh</u> , Aresh Sarkar
Oral #1126	Dispersion Effect of Extensional Flow for PP/CNT Nano-composite with Blister Disk of Twin Screw Extruder <u>Koki Matsumoto</u> , Takayuki Morita, Yoshihiko Arao, Tatsuya Tanaka
Workshop 2. Advanced molding technologies	
Time	13:40-16:00
Room	M104
Chair	Chang RY Chang RY (National Tsing Hua University) Ito H (Yamagata University) Vlachopoulos J (McMaster University)

Oral Sessions

Thursday, November 20

G7. Fibers and fiber processing

Time	08:30-10:00
Room	M103
Chair	Dai L
Oral #1105	Effects of Processing Parameters on Jet Thinning and Morphology of Electrospun Poly(N-Isopropylacrylamide) Nanofibers <u>Yu Wang</u> , Chi Wang
Oral #1107	Fabrication of Porous Carbon Nanofibers for Electric Double Layer Capacitor <u>Takara Matsumoto</u> , Shinsuke Nagamine, Masahiro Ohshima
Oral #1138	Study on the Dyeing and Finishing Behaviors of Nano-Zno on Silk Fabrics with Tea Polyphenols <u>Wenli Wang</u> , Tingjuan Yi, Yan Wang, Qiming Wang

S3. Nanotechnologies and nanomaterials

Time	08:30-10:00
Room	M102
Chair	Chiu FC
I17 #1165	Concurrent Enhancement of Multiple Properties in Reactively Processed Nanobicomposites of Polylactide <u>Suprakas Sinha Ray</u>
Oral #1006	Polymer Nanomaterials: How to Prepare and How to Use them? <u>Stoyko Fakirov</u> , Debes Bhattacharyya
Oral #1142	High-performance and Durable Inverted Organic Photovoltaics Incorporating Solution-processable Fluorescent Hyperbranched Polymer as an Interfacial Modified Layer <u>Ren Hao Lee</u> , Yi-Lin Tsai, Jian-Cheng Wang, Tzong-Yuan Juang, Chih-Ping Chen
Oral #1144	#1144: Individual Graphene Nanosheets through Electrolytic Exfoliation as an Efficient Hole Transport Layer in Polymer Solar Cell <u>Cheng Ming Hsieh</u> , K. F. Li, S. R. Jhan, Li-Hung Lin, T. Y. Juang, Chih-Ping Chen

G6. Polymer composites, S5. Novel processing technologies

Time	08:30-10:00
Room	M105
Chair	Saito T
I18 #1024	Effects of Solvent Casting and Melt Intercalation Mixing Processes on Characteristics of Polylactide-nanographite Platelets Composites <u>Esmail Narimissa</u> , <u>Rahul K Gupta</u> , Nhol Kao, Hyoung Jin. Choi [^] , Sati N. Bhattacharya
Oral #1106	Surface Wettability Change by Agglomeration Control of Silver Nano-particles <u>Takushi Saito</u> , Yusei Yokoyama, Tatsuya Kawaguchi, Isao Satoh
Oral #1120	Modification of Chemically Stable Polymeric Materials 44. Improvement in the Hydrophobic Property and Adhesion Property of Polymeric Materials and FRPs <u>Hitoshi Kanazawa</u> , Aya Inada
Oral #1140	Development of an Electrostatic Separation Method for Plastic Recycling <u>Motofumi Mihara</u> , Yuichi Matsuo, Michio Murai

G6. Polymer composites, G12. Rheology and rheometry

Time	08:30-10:00
Room	M106
Chair	Yang IK
I19 #1137	Hot-drawn Biodegradable Polyvinyl Alcohol (PVA)/Short Cellulose Nanofibrils (SCNF) Composite Films <u>Jun Peng</u> , Craig Clemons, <u>Lih-Sheng Turng</u>
Oral #1033	A Rheological Study on the Thermal Degradation of Biodegradable Poly(Propylene Carbonate) during Melt Processing S. S. Lin, <u>Wei Yu</u>
Oral #1059	Improvement of Mechanical Toughness for Poly(Lactic Acid) by Changing Processing Conditions <u>Tong Huang</u> , Shogo Nobukawa, Masayuki Yamaguchi
Oral #1109	Development of Predictive Model for High Speed Dispersion of Coating Mill Base Rishi Sharma, Asesh Sarkar, <u>Anup K Ghosh</u>

G7. Fibers and fiber processing	
Time	10:20-12:00
Room	M103
Chair	Ghosh AK
Oral #1182	Formtion of β-form Crystals in High-speed Melt Spinning of Biodegradable Phbh <u>Qing Qin</u> , Wataru Takarada, Takeshi Kikutani
Oral #1185	Mutual Interaction of Two Components in the Crystallization of Blend Fibers Consisting of Polypropylenes of Different Stereo Regularity <u>Kouya Kawai</u> , Yohei Kohri, Wataru Takarada, Tomoaki Takebe, Toshitaka Kanai, Takeshi Kikutani
Oral #1187	Manufacturing Technique and Property Evaluations of Biodegradable Polyvinyl Alcohol Coronary Stents with Chitosan Coating <u>Shih-Ya Chou</u> , Jia-Horng Lin, Shih-Peng Wen, Ching-Wen Lou
Oral #1192	Manufacturing Technique and Property Evaluations of Functional Fabric <u>Ting-An Lin</u> , Jia-Horng Lin, Ching-Wen Lou
Oral #1224	Analysis on Non-steady State Spun-bonding Process with Short Gap Between Spinneret and Air Sucker Wataru Takarada, Renukarn Ruamsuk, YuanJing Zhang, Takeshi kikutani
S3. Nanotechnologies and nanomaterials	
Time	10:20-12:00
Room	M102
Chair	Chen M
Oral #1170	A Tough Composite from Hybrid Nanofillers <u>Warintorn Thitsartarn</u> , Chee Chuan Jayven Yeo, Chaobin He
Oral #1195	Stretchable Conductors Based on Lignin-derived Electrospun Carbon Fibrous Mats <u>Xu Li</u> , Suxi Wang, Xikui Zhang, Chaobin He
Oral #1206	Nanohole Processing in a Polymer Film with Gold Nanoparticles <u>Yamada Kazushi</u> , Y. Tsuboi
Oral #1217	The Size-dependent Transition Barrier of Silver Clusters <u>Yi-Kang Lan</u> , An Chung Su
S5. Novel processing technologies, G4. Polymerization and synthesis	
Time	10:20-12:00
Room	M105
Chair	Chinsirikul W
Oral #1191	Solvent Induced Infusion Behavior of Poly(Ethylene Terephthalate) Filaments during Cold Drawing <u>Rina Khanum</u> , Wataru Takarada, Arun Aneja, Takeshi Kikutani
Oral #1201	Evaluation of Sealed Parts of Fluorine Film by Laser Advanced Welding of Plastics K. Ueda, K. Satoh, D. Maeda, <u>K. Yamada</u> , Y. Kurosaki
Oral #1214	Hermetically Sealed Electron Beam Emitters for Polymer Processing – A Key Enabler for Inline Processing <u>Michael Biemann</u> , Ian Bland
Oral #1210	Catalyst-free One-pot Synthesis of Polypyrazolines from Diazoesters and Maleic Anhydride <u>Xiangxiang Jia</u> , Lijian Liu
S2. Photonic applications	
Time	10:20-12:00
Room	M106
Chair	Shiratori S
Oral #1032	Three Dimentional Orientation of Small Molecules in Cellulose Triacetate Film by Uni-axial Stretching <u>Shogo Nobukawa</u> , Kultida Songsurang, Masayuki Yamaguchi
Oral #1095	Control of Film Thickness of TiO₂ Layer in Organic Solar Cell by Spray Layer-by-layer Method <u>Atthaporn Ariyarit</u> , Seimei Shiratori

Oral #1180	High Definition and High Color Uniform Liquid Crystal Display with Surface Diffusing System Using Particle-precipitated Scattering Film Yusuke Fujii, Akihiro Tagaya, Yasuhiro Koike
Oral #1239	Rheological Modelling for The Early Stage of Polymer Crystallization C.H. Wu, I-Kyang Yang

Poster Sessions

Tuesday, November 18

Time : 18:00-20:00

Location Exhibition Hall

Category : G01. Injection molding

- 001) #1005 **Using Differential Mold Temperatures to Improve the Residual Wall Thickness Uniformity around Curved Sections of Fluid Assisted Injection Molded Tube**
Yi Shih Hsin, Shih-Jung Liu, K.Y. Lin, F.A. Chang
- 002) #1129 **Application of Ultrasonic-assisted Injection Molding on the Improvement of Melt Flow and Floating Fibers**
Chung Ching Huang, Jie Tao, Yi Jen Yang
- 003) #1131 **The Influence of Processing Parameters on Fingering Formation in Fluid Assisted Injection Molded Disks**
Jia-Hong Sun, Kun-Yeh Lin Shih-Jung Liu
- 004) #1158 **Parameters Affecting the Ink Wash-off in In-mold Decoration of Injection Molded Parts**
Chung-Ming Hsu, Tzu-Wei Huang, Shih-Jung Liu
- 005) #1159 **Fabrication of Balloon-expandable Self-lock Drug-eluting Polycaprolactone Stents Using Micro-injection Molding and Spray Coating Techniques**
Fu-Jun Chiang, Chang-Lin Chiang, Shih-Jung Liu
- 006) #1161 **Morphological Development in Water Assisted Injection Molded Polyethylene/Polyamide-6 Blends**
De-Mei Lee, Che-Wei Cheng, Wei-Ru Lin, Kun-Yeh Lin, Shih-Jung Liu
- 007) #1190 **Apply Injection Expansion-compression Molding Technology to the Mold Design and Process Development of Thick-walled Parts**
Chung Ching Huang, Yi Lin Chang, Yi Jen Yang
- 008) #1196 **Numerical Simulation of Injection Molding for Multiscale Cavities**
Seokkwan Hong, Kang JeongJin, Kyunghwan Yoon
- 009) #1200 **The Effect of Melt Temperature on Filling Pattern in Injection Molding Simulation of Thin LGP**
Jinhyeok Jang, Jongsun Kim, Sunghye Lee, Kyunghwan Yoon
- 010) #1241 **Repair Welding of Die Steel Skd 11**
L.Y. Hu, Y.F. Liu, K.H. Hou, D.L. Wu, C.C. Keng

Category : G02. Extrusion and coatings

- 011) #1083 **Anti-corrosion Behaviors of Roller-coated Water-borne Polyurethane Coatings on Galvanized Steel Sheets**
Shih-Ping Yu, Cheng Wei Su, Horng Jer Tai
- 012) #1189 **Effects of Twin-screw Configurations and Compounding Process Conditions on the Fiber Length Maintenance of Glass Fiber Reinforced Plastic**
Yi Jen Yang, Chung Ching Huang, Zih Kai Lin
- 013) #1237 **Lowering Residual Monomer by Extraction of Organic Solvent in Reactive Extrusion**
Jian-Yuan Yu, Y.M. Chen, K.Y. Huang

Category : G03. Rubber and elastomers

- 014) #1063 **Preparation of Triple Shape memory Thermoplastic Polyurethane/Olefin Block Copolymer/Polycaprolactone Blends**
Pei-Yun You, Yu-Ting Chiu, Chia Wen Kuo, Sun-Mou Lai
- 015) #1069 **Degradation and Hydrogenation of Nitrile Butadiene Rubber Using Organic Metallic Catalysts**
Feng Ming Hsieh, Mei-Hua Wang, Ting-Yao Su, Chun-Yen Chen
- 016) #1139 **Synthesis of Polyurethanes Crosslinked by Polyrotaxanes and their Properties**
Natsumi Nonaka, T. Kondo, A. Kitano, R. Katsuki, R. Baba, Hiroto Murakami

Category : G04. Polymerization and synthesis

- 017) #1010 **Thermal Behavior and Optical Properties of Amorphous Copolyesters**
Cheng Hsing Fan, C.Y. Chen, K.C. Shih
- 018) #1011 **Preparation and Characterization of Multi-walled Carbon Nanotube Supported Phosphonium Halides and their Catalytic Applications for Cyclic**
Cheng-Wei Yeh, Yi-Zhen Chen, Kuo-Chen Shih, Chih-Wei Liu, Joseph Lik Hang Chau, Mao-Lin Hsueh, Cheng-Wei Yeh
- 019) #1039 **Synthesis of Branched PEO-type Polymer Electrolytes**
Chia-Chun Wang, Kuo-Chung Cheng, Chien-Fu Li, Chien-Yen Huang, Wenjeng Guo, Tsu-Hwang Chuang
- 020) #1070 **The UV Polymrization Mechanism of Acrylic Adhesive for Optically Clear Resin**
Kim Tae Yee, Kang Ho-Jong, Kim Hak Seon

- 021) #1080 **Hardness Enhancement In Epoxy Based under Coating Materials by Surface Modified Nano Silica**
Song-Hye Hwang, Seung Woo Bak, Kang Ho-Jong
- 022) #1093 **On the Improvement of Compatability in Processing PIS Copolymers the Role of Inserted Phenyl group**
Chen Kuan Pin
- 023) #1110 **The Effect of Crosslinker Types on Adhesion Properties of Pressure Sensitive Adhesives**
Seok-Ho Hwang, Seung-Suk Baek, Se-Jung Jang
- 024) #1112 **Synthesis and Characterization of Aliphatic Polyester Based on 2,2-Bis(4-Hydroxycyclohexyl)Propane**
Jun-seok Yeo, Dong-wook Seong, Seok-Ho Hwang
- 025) #1204 **Synthesis and Characterization of Novel Renewable Polyesters Poly(ethylene-2,5-furanoate)**
Cheng-Chun Huang, Po-Ju Chen

Category : G05. Polymer blends and alloys

- 026) #1014 **Liquid Crystalline Behavior and Miscibility of HPC/H₂O/H₃PO₄ Tertiary System as Blending XG in HPC**
Syang-Peng Rwei, Tuan Anh Nguyen
- 027) #1025 **Orientation Coupling of Low-mass Compound with Cross-linked Rubber**
Ayumi Kiyama, Shogo Nobukawa, Masayuki Yamaguchi
- 028) #1035 **Stress-optical Coefficient of Antiplasticized Polycarbonate**
Seiki Hasunuma, Azusa Miyagawa, Shogo Nobukawa, Masayuki Yamaguchi
- 029) #1053 **Compatibilization of Phenoxy with Poly(Butylene Succinate-co-butylene Terephthalate) Copolyesters**
Chean Cheng Su, Peter L. Wu

Category : G06. Polymer composites

- 030) #1023 **Flow Control in Resin Transfer Molding Based on Online Estimation of Local Permeability**
Bai Jian Wei, Yuan Yao
- 031) #1066 **Synthesis and Properties of Composites of Polyamide 6 and Modified Graphene Oxide**
C.H. Chao, Jing-Tang Chang, Zheng-Hao Zhao, Kou-Bin Cheng
- 032) #1067 **Natural Leather with Diamond-like Carbon Coating Deposited by Using Arc Ion Plating**
Zong-Yu Chen, Jing-Tang Chang, Kou-Bin Cheng
- 033) #1068 **Solvent Type Polyurethane Film with Tungsten Oxide/Titania Composite Additive for Near Infrared Shielding**
I-Hao Liao, Jing-Tang Chang, S.W. Wu, Kou-Bin Cheng
- 034) #1087 **Preparation and Characterization of Complexed Ionic Membranes Using Electrospinning**
Su Jeong Lee, Sang Yong Nam
- 035) #1090 **Ionically Modified Polyimide-based Composite Separator for the Application of Lithium Ion Battery**
Sang Yong Nam, Su Jeong Lee
- 036) #1122 **Preparation and Characterization of Dual-curable Epoxyacrylate/Graphene Oxide Composites**
Trong-Ming Don, Cian-Fan Shyu, Su-Yu Lien
- 037) #1123 **Surface Modified of Electrospun Microtube Array Membrane by Graft Polymer for Immobilization of Chitosan**
Yun Tsao, Ko-Shao Chen, Chia-Hsuan Tsen, Chien Chung Chen
- 038) #1124 **Immobilization of Hydrogels on Plasma Treated TPU Nonwoven by Surface Grafted Polymerization of Sodium Styrene Sulfate (NaSS) and N-isopropylacrylamide (NIPAAm)**
Ko-Shao Chen, Pei-Jung Tsai, Tsuei-Shan Hung, Cheng-Hsing Kuo
- 039) #1151 **Investigation of PBSL/Thermoplastic Starch Blends with and without the Incorporation of Luffa Fibers**
Yu-Hsiang Kao, Fang-Chyou Chiu, wei chen Liu
- 040) #1152 **Fabrication and Properties of PBSA/Kenaf Green Composites**
Yu Chi Hsieh, Fang-Chyou Chiu, He Jie Cai
- 041) #1202 **High Performance Hydroxide-conducting Electrolytes of Quaterized Polyvinyl Alcohol (QPVA) Composites Containing Magnetic Graphene Oxide (Go) Nano-sheets**
Jia Shiun Lin, Ming Shih Chao, Shing jiang Lue
- 042) #1205 **Analytical Applications of Chitosan / Titania Composite Films**
Kuo-Feng Chou, Li-Wen Wang
- 043) #1208 **Properties and Characteristic of Poly(Butylene Succinate) Modified-cellulose Nanocomposites**
Tzong-Ming Wu, Tsanbiao Wu

- 044) #1213 **Crystallization Behavior and Properties of Poly(Butylene Succinate-co-adipate)/ Organically Modified Layered Double Hydroxide Nanocomposites**
Shian Tsai, [Tzong-Ming Wu](#)
- 045) #1215 **Preparation and Characteristics of Poly[(Butylenes Succinate)-co-adipate] /Modifier Flax Fiber Biocomposites**
Ming-Chun Hung, [Tzong-Ming Wu](#)
- 046) #1232 **Crystallization Behavior and Properties of Poly(Butylene Succinate-co-adipate)/ Organically Modified Layered Double Hydroxide Nanocomposites**
[Gang-Shian Tsai](#), T.M. Wu
- 047) #1236 **Preparation and Biodegradation Properties of Poly(Butylenes Succinate Adipate)/Modified Plax Fiber Biocomposites**
[Ming-Chun Hung](#), Mei-chen Chu, [Tzong-Ming Wu](#)

Category : G07. Fibers and fiber processing

- 048) #1031 **Ultradrawing Properties of Ultrahigh Molecular Weight Polyethylene Composite Fibers Filled with Functionalized Activated Nano-carbon Particles**
[Jen Taut Yeh](#), [Chuen-kai Wang](#), [Zhi-Yu Zhang](#), [Chih Chen Tsai](#)
- 049) #1102 **Morphology of Poly (Trimethylene Terephthalate)/Graphene Nanosheets Composite Nanofibers**
[Syuan Hua Wu](#), [Tong-En Kuo](#), [Chien Lin Huang](#)
- 050) #1119 **Effect of Fiber Surface Treatment on the Properties of Biocomposites Based on Poly(Lactic Acid) (PLA) and Jute Fibers**
[Mohammad Tahir Zafar](#), [Anup K Ghosh](#), [Saurindra N Maiti](#)
- 051) #1166 **Electrospun Nanofibrous Polylactide/Chitosan Mats for the Filtration of Silver Ions**
[Demei Lee](#), [Dave Wei-Chih Chen](#), [Shih-Fan Chiu](#), [Shih-Jung Liu](#)
- 052) #1183 **Fabrication of Oriented Fibers via Needleless Melt Differential Electrospinning**
[Ying An](#), [Xiaohu Li](#), [Hua Yan](#), [Weimin Yang](#)
- 053) #1188 **Purification of Lignin from Cellulosic Ethanol Residues for Carbon Fiber Production**
[Chia-Han Liang](#), [To-Mei Wang](#), [Cheng-Gang Wu](#), [Kuo-Chao Liang](#), [How-Ming Lee](#)
- 054) #1234 **Fabrication and Photodegradation Characterstics of Electrospun PMMA/TiO₂ Nanocomposite Textiles**
[Ming-Chung Wu](#), [Ting-Han Lin](#), [Chiao-Wei Hsu](#), [Shun-Hsiang Chan](#), [Kun-Mu Lee](#)
- 055) #1235 **Electrospun P3HT/PMMA Blend Fibers for Low Cost Volatile Organic Compounds Sensor Applications**
[Ming-Chung Wu](#), [Shun-Hsiang Chan](#), [Wei-Fang Su](#)

Category : G08. Membrane technology

- 056) #1062 **Gradient Functional Characteristic by Polymer/Nano Particle Stacks**
[Kenta Fukada](#), [Seimei Shiratori](#)
- 057) #1075 **Highly Durable Superhydrophobic Coating with Gradient Density Polymer Structure**
[Mizuki Tenjimbayashi](#), [Naoyuki Yokoi](#), [Seimei Shiratori](#)
- 058) #1076 **Highly Transparent Robust Superhydrophobic Polyester Mesh**
[Naoyuki Yokoi](#), [Mizuki Tenjimbayashi](#), [Seimei Shiratori](#)
- 059) #1086 **Separation of Aliphatic/Aromatic Hydrocarbons Using Modified Copolyimides Membranes by Pervaporation**
[Sang Yong Nam](#), [Min Jae Jo](#)
- 060) #1088 **Fabrication of Semi-transparent Highly Oleophobic Films with Hollow Cyanoacrylate Nanoparticles**
[Takeshi Matsubayashi](#), [Mizuki Tenjimbayashi](#), [Seimei Shiratori](#)
- 061) #1089 **The Effect of Molecular Weight of Grafted Moieties on Gas Separation Properties of the Polymeric Membrane**
[Mi Ae Song](#), [Deuk Ju Kim](#), [Sang Yong Nam](#)
- 062) #1092 **Gas Transport Property of Newly Developed Polymeric Membrane Coated with Funtional Materials**
[Mi Ae Song](#), [Deuk Ju Kim](#), [Sang Yong Nam](#)
- 063) #1130 **Enhancing Performance of Thin PMMA-light Guide Plate with Hot Punching**
[Ching An Huang](#), [C. Y. Hsiau](#), [C. W. Liaw](#), [P. T. Huang](#), [S. D. Chen](#)
- 064) #1133 **Poly(Vinyl Alcohol)/Graphene Oxide Nano-composites for Water Desalination**
[Yi-Chun Wang](#), [S.J. Jessie Lue](#)
- 065) #1153 **Fabrication of Heat-resistant Superhydrophobic Surface by Microscopic Texture Patterning on Ptfе**
[Ken Suwabe](#), [Seimei Shiratori](#)
- 066) #1157 **Adsorption of Silver Ions on Polypyrrole Embedded Electrospun Nanofibrous Polyethersulfone Membranes**
[Jiunn-Jong Wu](#), [Shou-Chen Liu](#), [Shih-Jung Liu](#)

- 067) #1163 **Electrospun PLGA/Collagen Nanofibrous Membrane as Early-stage Wound Dressing**
Yi-Chuan Kau, Yi-Shiun Cheng, Chi-Yin Chou, Jan-Kan Chen, Ren-Chin Wu, Wen-Ling Yeh
Shih-Jung Liu
- 068) #1172 **Sustainable Release of Vancomycin, Gentamicin and Lidocaine from Novel Electrospun Sandwich-structured PLGA/Collagen Nanofibrous Membranes**
Dave Wei-Chih Chen, Jun-Yi Liao, Jan-Kan Chen, Err-Cheng Chan, Chang-Tin Lin, Shih-Jung Liu
- 069) #1178 **A Study of Hydrophobic Electrospun Nanocomposite Membranes Applied to Direct Contact Membrane Distillation**
Hung-Chang Lin, Ching-Ti Chiu, Chung-Liang Liu, Hung-Chang Lin, Shin-Yi Lai
- 070) #1184 **Influence of Deliquescent Salt and its Concentration on Self-healing Ability of Layer-by-layer Self-assembly Multilayer.**
Taihei Taniguchi, Seimei Shiratori
- 071) #1218 **Continuous of Making Microporous Film Design Development Equipment and Function Test**
Chung-Ching Huang, Jia Yu Li, Yi Jen Yang
- 072) #1219 **Heat Sealing Property of Multilayer Polyethylene Films**
Chung-Ching Huang, Yi Jen Yang, Wei-Yang Sie
- Category : G09. Mixing and compounding 1043**
- 073) #1007 **Lowering Polymerization Temperature Enhances the Release of Antibiotic from PMMA Bone Cement**
Ching-Lung Tai, Siu-Lian Tsai, Pang-Hsin Hsieh, Pei-I Liao
- 074) #1008 **Preparation of Low-modulus PMMA Bone Cement for Vertebroplasty**
Yi-Lu Chen, Yen-Chen Lee, Lih-Hui Chen, Ching-Lung Tai
- 075) #1049 **Evaluation of Dispersive Mixing Performance about Special Rotor in Twin-screw Extruder**
Shiori Watanabe, Sayaka Yamada, Hodaka Miura, Hideo Funahashi, Takaya Uda
- Category : G10. Modeling and simulation**
- 076) #1030 **Warpage Control of Injection-molding a Thin-walled Part Using Local Mold Temperature Setting**
Ming Sian Huang, Shih-Chih Nian, C.Y. Wu
- 077) #1043 **Molding and Optical Performance Simulations of a New Plastic Grating Lens for an Asymmetric LED Fog Lamp**
Dong-Yu Wu, Shi Chang Tseng
- Category : G12. Rheology and rheometry**
- 078) #1047 **Rheological Behaviors of Dibenzylidene D-sorbitol Gels in Poly(Ethylene Glycol)**
Wei-Chi Lai, C.C. Chen
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