

ICPST-42 (2025) PROGRAM

PROGRAM ON TUESDAY, JUNE 24

Medium Hall on Tuesday, June 24

Tutorial	Time	Duration Number	TutorialTopics (General Review)	Lecturers
Tutorial: Basics of Lithography Materials Science and Technology (Language of tutorial: Japanese or English)	Chairperson: Seiji Nagahara (ASML Japan), Teruaki Hayakawa (Institute of Science Tokyo)			
	13:00-13:05	5 min TU1	Opening remark from SPST	Takao Watanabe (University of Hyogo) 渡邊 健夫（兵庫県 立大学）
	13:05-13:10	5 min TU2	Opening remark from TAPJ	Hideo Horibe (Osaka Metropolitan University) 堀邊 英夫（大阪 公立大学）
	13:10-13:35	25 min TU3	History of the Semiconductor Industry and Development of Chemical Amplification Three- Component Resists	Hideo Horibe (Osaka Metropolitan University) 堀邊 英夫（大阪 公立大学）
	13:35-14:00	25 min TU5	From Visible to Extreme UV: The Evolution of Information Transfer in Semiconductor Projection Lithography	John Peterson (imec)
	14:00-14:20	20 min TU6	i-line resist: History and Design Principle	Makoto Hanabata (Photofunctional Materials Research Co., Ltd.) 花畑 誠（光機能 材料研究所）
	14:20-14:40	20 min	Break	

Chairperson: Takao Watanabe (University of Hyogo), Hideo Horibe (Osaka Metropolitan University)			
14:40-15:10	30 min TU7	KrF/ArF/ArFi/EB/EUV Chemically Amplified Resist (CAR); (PTD, NTD, developer)	Toru Fujimori (Hitachi High-Tech) 藤森 亨（株式会社 日立ハイテク）
15:10-15:35	25 min TU8	Basics and Recent Advances of Photo- Acid Generators	Tomotaka Tsuchimura (Fuji Film) 土村 智孝（富士 フイルム株式会 社）
15:35-16:00	25 min TU9	Early Metal-Containing Resists for EUV Lithography	Robert Brainard (SUNY)
16:00-16:20	20 min	Break	
Chairperson: Seiji Nagahara (ASML Japan), Toru Fujimori (Hitachi High-Tech)			
16:20-16:40	20 min TU10	Resist filtering technology	Toru Umeda (Nihon Pall) 梅田 徹（日本ポー ル株式会社）
16:40-17:10	30 min TU11	Basics of BARC, SOC, TC, MHM, rinse, shrink material	Tomohide Katayama (Merck) 片山 朋英（メル クエレクトロニク ス株式会社）
17:10-17:45	35 min TU12	Special Keynote Tutorial Talk: Process technology for evolving 3D stacked CMOS image sensors	Hayato Iwamoto (Sony Semiconductor Solutions) 岩元 勇人（ソニー セミコンダクタソ リューションズ株 式会社）
17:45-17:50	5 min TU13	Closing remark	Seiji Nagahara (ASML Japan)

				永原 誠司 (ASML Japan)
	17:50-18:00	10 min	Break	
Welcome Reception	18:00-20:00	120 min	Welcome Reception (Get together party) with light meals (Free of charge)	At Foyer in front of Medium Hall

PROGRAM ON WEDNESDAY, JUNE 25

Medium Hall on Wednesday, June 25

Symposium	Time	Number	Presentation Title	Authors
Opening Remarks	9:30-9:45	OP	Opening Remarks	<u>Takeo Watanabe</u> SPST
SPST Award Ceremony	9:45-10:00	AC	SPST Award Ceremony	<u>Takeo Watanabe</u> , SPST <u>Itaru Osaka</u> , SPST
A0. Plenary talk	Chairperson: <u>Takeo Watanabe</u> (University of Hyogo), <u>Seiji Nagahara</u> (ASML Japan)			
	10:00-10:45	A00-01	EUV Lithography; past, present and future	<u>Jos Benschop</u> ASML, the Netherlands
	10:45-11:30	A00-02	EUV History, current status and prospect for EUV Lithography	<u>Takeo Watanabe</u> University of Hyogo, Japan
	11:30-13:00		Lunch	
A3. Direct Self Assembly (DSA)	Chairpersons: <u>Seiji Nagahara</u> (ASML Japan), <u>Redouane Borsali</u> (Polynat Carnot Institute)			
	13:00-13:40	A03-01	IR-AFM metrology on latent images in DSA and EUVL photoresist (Keynote)	<u>Diederik Maas</u> 1, <u>Maarten van Es</u> 1, <u>Komal Pandey</u> 1, <u>Adam (Chung Bin) Chuang</u> 1, <u>Takehiro Seshimo</u> 2, and <u>Teruaki Hayakawa</u> 3 1 Netherlands Organisation for Applied Scientific Research – TNO, the Netherlands, 2 Tokyo Ohka Kogyo Co. Ltd., Japan, 3 Institute of Science Tokyo, Japan
	13:40-14:00	A03-02	Strategic Development of High-Chi Materials for Directed Self-Assembly	<u>Shotaro Iino</u> , <u>Takehiro Seshimo</u> , <u>Ken Miyagi</u> , <u>Takahiro Dazai</u> , and <u>Kazufumi Sato</u> , Tokyo Ohka Kogyo Co., Ltd., Japan

14:00-14:20	A03-03	Development of PS-PMMA Block Copolymers Incorporating Poly(n-butyl methacrylate) for Low Temperature Thermal Annealing toward Perpendicular Microdomain Alignment	<u>Hsi-Chih Wang</u> 1, Takehiro Seshimo 2, Takahiro Dazai 2, Kazufumi Sato 2, Kan Hatakeyama-Sato 1, Yuta Nabae 1, and Teruaki Hayakawa 1 1 Institute of Science Tokyo, Japan, 2 Tokyo Ohka Kogyo Co., Ltd., Japan
14:20-14:40		Coffee Break	
Chairpersons: Teruaki Hayakawa (Institute of Science Tokyo), Diederik Maas (TNO)			
14:40-15:10	A03-04	Self-assembly of Carbohydrate Block Copolymers: From Glyconanoparticles to thin films to photonic crystals (<i>Invited</i>)	<u>Redouane Borsali</u> Polynat Carnot Institute, France
15:10-15:30	A03-05	The effect of side-chain modification via hydrogen bonding on the microphase-separated structure of PS-b-P4VP-b-PMMA	<u>Ryota Uehara</u> 1, Shinsuke Maekawa 1, Takehiro Seshimo 2, Ryutaro Sugawara 2, Takahiro Dazai 2, Kazufumi Sato 2, Kan Hatakeyama-Sato 1, Yuta Nabae 1, and Teruaki Hayakawa 1 1 Institute of Science Tokyo, Japan, 2 Tokyo Ohka Kogyo Co., Ltd., Japan
15:30-15:50	A03-06	Preparation of metal-containing BCP thin film	<u>Desheng Zhan</u> , Zhenyu Yang, Xiaofei Qian, Guangya Wu, and Hai Deng Fudan University, China
15:50-16:10		Coffee Break	
Chairpersons: Takehiro Seshimo (Tokyo Ohka Kogyo Co. Ltd.), Dustin W. Janes (TEL Technology Center, America)			
16:10-16:30	A03-07	Synthesis of polymeric photoacid generator	<u>Tao Liu</u> , Zhenyu Yang, Xiaofei Qian, and Hai Deng

			with sub-10nm patterning capability	Fudan University, China
	16:30-16:50	A03-08	Solvent Annealing of Fluorine-Containing Block Copolymers to Control Orientation	Hongyi Tang, Xuemiao Li, Xiaofei Qian, and Hai Deng Fudan University, China
	16:50-17:10	A03-09	Molecular assembly and disassembly of AIE-active triangular chromophores	Pyae Thu 1, Hiroki Nakanishi 2 and <u>Mina Han</u> 1,2 1 Kongju National University, Korea, 2 Tottori University, Japan
	17:10-17:30	A03-10	Interactions of AIE-active silole derivatives with linear and trigonal azo chromophores	Mina Han 1, Pyae Thu 1, Min Kyoung Kim 2, and Young Tae Park 2 1 Kongju National University, Korea, 2 Keimyung University, Korea
	17:30-18:00		Coffee Break (with light meals)	At Foyer in front of Medium Hall
Panel Discussion	18:00-20:00	PD	Panel Discussion Topics: What's Next for Materials Research in Device Manufacturing? Unlocking Next Wave of Innovation: AI, Sustainability, Scaling and 3D Integration Facilitators: Seiji NAGAHARA (ASML Japan) , Takeo WATANABE (University of Hyogo)	Panelists: Dr. Jos Benschop (ASML) Dr. Danilo De Simone (IMEC) Mr. Ethan Choong Bong (CB) Lee (Samsung SDI) Prof. Teruaki Hayakawa (Institute of Science Tokyo) Prof. Kenji Yoshimoto (Kanazawa University) Dr. Toshiyuki Ogata (TAIYO HOLDINGS)

Small Hall on Wednesday, June 25

Symposium	Time	Number	Presentation Title	Authors
	Chairpersons: Kensuke Osada (NIQST), Gao Shan (NIQST)			

A2. Nanobiotechnology	13:00-13:30	A02-01	Photo-responsive cell anchoring surface for single-cell phenotype analysis (Invited)	<u>Satoshi Yamaguchi</u> Osaka University, Japan
	13:30-14:00	A02-02	Bio Roll-Up: Self-Assembly of Hydrogel Photoresists (Invited)	Shaheen Hasan 1, Chase Brisbois 2, Kelly Carufe 3, Abigail Johnson 2, Julia Garrison 2, Lauren Sfakis 2, Victoria Brunner 2, McKenzie Albrecht 4, Aishwarya Panneerselvam 2, Yubing Xie 2, and <u>Robert Brainard</u> 2 1 Rensselaer Polytechnic Institute, USA, 2 University at Albany, USA, 3 Yale University, USA, 4 SUNY Polytechnic, USA
	14:00-14:20	A02-03	Photomodifiable azopolymer nanotopography for applications in cell biology	<u>John T. Fourkas</u> , Mona Abdelrahman, Wolfgang Losert, Jerry Shen, Nikos Liaros, and Jeffrey Taylor University of Maryland, USA
	14:20-14:40	A02-04	Elastoplastic analysis of deformation of poly(L-lactic acid) microneedle	<u>Yukihiro Kanda</u> 1,2, Hiroaki Takehara1,2, and Takanori Ichiki1,2 1 The University of Tokyo, Japan, 2 Innovation Center of NanoMedicine (iCONM), Japan
	14:40-15:10	A02-05	Optimal radiation dose to induce the abscopal effect through the combination of carbon-ion radiotherapy and immune checkpoint therapy (Invited)	<u>Liqiu Ma</u> 1,2, Lin Xie 1, Kensuke Osada 1, Yukari Yoshida 2, Akihisa Takahashi 2 and Takashi Shimokawa 1 1 Institute for Quantum Medical Science, National Institutes for

			Quantum Science and Technology (QST), Japan, 2 Gunma University Heavy Ion Medical Center, Japan
15:10-15:30		Coffee Break	
Chairpersons: Yukihiro Kanda (iCONM), Takanori Ichiki (Univ. of Tokyo)			
15:30-16:00	A02-06	Lipid Nanodiscs Formed by Lipoprotein-Mimetic Polymers and Their Applications in Drug Delivery (Invited)	<u>Kazuma Yasuhara</u> Nara Institute of Science and Technology, Japan
16:00-16:30	A02-07	Nano-Sized Contrast Agent Based on a Novel Self-Folding Macromolecular Architecture for MRI-Based Cancer Diagnosis (Invited)	<u>Shan Gao</u> 1, Yutaka Miura 2, Akira Sumiyoshi 1, Nobuhiro Nishiyama 2, Ichio Aoki 1 and Kensuke Osada 1 1 National Institutes for Quantum Science and Technology (QST), Japan, 2 Institute of Science Tokyo, Japan
16:30-16:50	A02-08	Accumulation of nanoruler polymer-based probe in the inflammaging model mice for the MRI diagnosis of chronic inflammation.	<u>Nanami Maehara</u> 1, Kae Sato 2, Mitsuru Naito 3, Kanjiro Miyata 3, Akiko Takahashi 4, and Kensuke Osada 1 1 National Institutes for Quantum Science and Technology (QST), 2 Japan Women's University, Japan, 3 The University of Tokyo, Japan, 4 Japanese Foundation for Cancer Research, Japan

	16:50-17:10	A02-09	Evaluation of the effectiveness of exosome heterogeneous fractionation analysis using a combination of FFE and NTA	<u>Shusuke Sato</u> 1, and Takanori Ichiki 1,2 1 Innovation Center of NanoMedicine, Japan, 2 The University of Tokyo, Japan
	17:10-17:30	A02-10	Comparative Study of Piezoelectric Properties in Poly-L-Lactic Acid (PLLA) and Polyvinylidene Fluoride (PVDF) Nanofibers	<u>Qi Kang</u> , Hiroaki Takehara and Takanori Ichiki The University of Tokyo, Japan

Room 408 on Wednesday, June 25				
Symposium	Time	Number	Presentation Title	Authors
A6. Nanoimprint	Chairpersons: Yoshihiko Hirai (Osaka Metropolytan University), Jun Taniguchi (Tokyo University of Science)			
	12:50-13:20	A06-01	Optical polymer wafers for waveguide of AR Glasses (<i>Invited</i>)	Akifumi Aono, Eiichiro Hikosaka, Takeshi Shinkai, Takashi Kasai, and Akihiro Muramatsu Mitsui Chemicals, Inc., Japan
	13:20-13:50	A06-02	High Refractive Index Polymers for Advanced Photonics: Opportunities and Challenges	C. Pina-Hernandez, K. Yamada, A. Legacy, and K. Munechika High RI Optics, USA
	13:50-14:10	A06-03	Development of TiO ₂ -SiO ₂ radical-based gas-permeable mold for application in UV nanoimprint lithography	Misaki Oshima ¹ , Mayu Morita ¹ , Mano Ando ¹ , Rio Yamagishi ¹ , Sayaka Miura ¹ , Naoto Sugino ² , and Satoshi Takei ¹ ¹ Toyama Prefectural University, Japan, ² Sanko Gosei LTD., Japan
	14:10-14:30	A06-04	Fabricating of the structure with partially different wettability incorporating the	Takuto Wakasa and Jun Taniguchi Tokyo University of Science, Japan

			moth-eye structure and the applications	
14:30-14:50	A06-05	Fabrication of Rose Petal effect Surface using photosensitive polyimide and nanoimpring		<u>Yoritaka Danjo</u> , and Jun Taniguchi Tokyo University of Science, Japan
14:50-15:00		Coffee Break		
15:00-15:30	A06-06	Nanoimprinting Lithography as Permanent Imprint or Etching Mask (<i>Invited</i>)		<u>Thomas Achleitner</u> EV Group, Austria
15:30-15:50	A06-07	Three-dimensional patterning technique for nanoimprint mold by dwell-time algorithms with iterative blind deconvolution method		<u>Noriyuki Unno</u> , Ryunosuke Komine, Jun Taniguchi, and Shin-ichi Satake Tokyo University of Science, Japan
15:50-16:10	A06-08	Fabrication of environmentally friendly biodegradable polylactic acid microstructures by micro-injection molding using amine-containing gas-permeable hybrid molds		<u>Mayu Morita</u> 1, Misaki Oshima 1, Arisa Teramae 1, Sayaka Miura 1, Rio Yamagishi 1, Naoto Sugino 2, Yoshiyuki Yokoyama 3, and Satoshi Takei 1, 1 Toyama Prefectural University, Japan, 2 Sanko Gosei LTD., Japan, 3 Toyama Industrial Technology Research and Development Center, Japan
16:10-16:30	A06-09	Low-Temperature Nanoimprint Lithography for Advanced Microneedles in Temperature-Sensitive Drug Delivery		<u>Sen Lean Goo</u> , Rio Yamagishi, Sayaka Miura, and Satoshi Takei Toyama Prefectural University, Japan
A8. Photopolymers in 3-D Printing/	Chairpersons: Takumi Ueno (Shinshu Univ.), Masaru Mukai (Tokyo Univ. of Science)			

Additive Manufacturing	16:30-17:00	A08-01	Initiator-free recyclable resin available for two-photon lithography (Invited)	Masaru Mukai, Wakana Miyadai, and Shoji Maruo Yokohama National University, Japan
	17:00-17:20	A08-02	Physics-based deep learning network for parallelized two-photon polymerization lithography using a spatial light modulator	Valeriia Sedova 1, Thomas Le Deun 2, Joel Rovera 2, Jonas Wiedenmann 3, Kevin Heggarty 2, and Andreas Erdmann 1 1 Fraunhofer Institute for Integrated Systems and Device Technology, Germany, 2 IMT Atlantique, France, 3 Heidelberg Instruments Mikrotechnik GmbH, Germany
	17:20-17:40	A08-03	Photopolymers with Enhanced Thermomechanical Properties for 3D Printing Applications	Céline Croutxé-Barghorn, Lucile Halbardier, Emile Goldbach, and Xavier Allonas University of Haute-Alsace, France

Room 409 on Wednesday, June 25				
Symposium	Time	Number	Presentation Title	Authors
A12. Fundamentals and Applications of Biomimetics Materials and Processes	Chairpersons: Atsushi Sekiguchi (LTJ), Takayuki Murosaki (Asahikawa medical Univ.)			
	13:30-13:55	A12-01	Superhydrophobic PDMS using femtosecond laser-processed surface molds for anti-icing (Invited)	Toshimitsu Sakurai 1, Toshihiro Somekawa 2, Yuji Hirai 3, and Hiroki Matsushita 1 1 Civil Engineering Research Institute for Cold Region (CERI), Japan, 2 Osaka University, Japan, 3 Chitose Institute of Science and Technology, Japan

13:55-14:15	A12-02	Antibacterial property of Si Nanopillars for anti-microbial resistance (AMR) bacteria	<u>Takeshi Ito</u> 1, Yushi Yanagisawa 1, Go Yamamoto 2, Shigeo Hamaguchi 2, Satoshi Kutsuna 2, Tomohiro Shimizu 1, and Shoso Shingubara 1 1 Kansai University, Japan, 2 Osaka University, Japan
Chairpersons: Takayuki Murosaki (Asahikawa Medical Univ.), Fujio Tsumori (Kyushu Univ.)			
14:15-14:35	A12-03	Development of antimicrobial adhesion-resistant surfaces by using COP nanopillar structures	Zihao Zhao, Tomohiro Shimizu, Shoso Shingubara, and <u>Takeshi Ito</u> Kansai University, Japan
14:35-14:55	A12-04	Practical Biomimetic Frameworks with Specific Case Studies for Extracting and Applying Biological Solutions	<u>Satoru Tachibana</u> Kyoto University, Japan
14:55-15:10		Coffee Break	
Chairpersons: Takeshi Ito (Kansai Univ.), Masashi Yamamoto (National Institute of Technology, Kagawa College)			
15:10-15:30	A12-05	Wettability Control of Ceramic Surfaces with Hierarchical Nano/Micro-patterns	<u>Shotaro Manabe</u> , and Fujio Tsumori Kyushu University, Japan
15:30-15:50	A12-06	Magnetically-Actuated Dynamic Culture System for Investigating Mechanical Effects on Biological Growth	<u>Nako Okamoto</u> , and Fujio Tsumori Kyushu University, Japan
15:50-16:10	A12-07	High Packing Efficient Deployment Method Using Swelling Hydrogels Inspired by Out-of-Plane Biological Deformation	<u>Akito Nagaoka</u> , and Fujio Tsumori Kyushu University, Japan
Chairpersons: Fujio Tsumori (Kyushu Univ.), Takeshi Ito (Kansai Univ.)			

	16:10-16:30	A12-08	Analysis of barnacle exploring behavior on surfaces with different functional groups	<u>Takayuki Murosaki</u> 1, Shota Asano 2, Yasuyuki Nogata 3, and Yuji Hirai 4 1 Asahikawa Medical University, Japan, 2 Graduate School of Science and Technology, CIST, Japan, 3 Central Research Institute of Electric Power Industry, Japan, 4 Chitose Institute of Science and Technology, Japan
	16:30-16:50	A12-09	Effect of Oxygen Addition on the Microstructure Formation on the Surface of PMMA Plate Using Atmospheric-Pressure Low-Temperature Plasma	<u>Ayumu Takada</u> 1, Motoki Tanaka 1, Atsushi Sekiguchi 2,3, and Masashi Yamamoto 1 1 National Institute of Technology, Kagawa College, Japan, 2 Litho Tech Japan Corporation, Japan, 3 Osaka Metropolitan University, Japan

PROGRAM ON THURSDAY, JUNE 26

Medium Hall on Thursday, June 26				
Symposium	Time	Number	Presentation Title	Authors
A5. EUV Lithography	Chairpersons: Takeo Watanabe (Univ. of Hyogo), Danilo de Simone (imec)			
	09:00-09:30	A05-01	Current Challenges in Photoresist (Invited)	Mark Neisser 1,2 1 Tsinghua University, China, 2 International Institute of Tsinghua University, China
	09:30-10:00	A05-02	Illuminating the demands high NA EUV will place on next generation photoresists and photomasks (Invited)	Patrick Naulleau EUV Tech Inc., USA
	10:00-10:20		Coffee Break	
	Chairpersons: Taku Hirayama (HOYA), Mark Neisser (Tsinghua Univ.)			
	10:20-10:55	A05-03	Double-Deprotected Acids: Polymeric Esters and Acid Amplifiers (Invited)	Seth Kruger 1, Brian Cardineau 2, William Earley, Kenji Hosoi 3, Koichi Miyauchi 3, and Robert L. Brainard 4 1 NYCREATES, USA, 2 Inpria, USA, 3 Central Glass, Japan, 4 University at Albany, USA
	10:55-11:25	A05-04	Double Amplification Resists from Acid-Catalyzed Chain-Unzipping of Polyphthalaldehyde-Based Polymers (Invited)	Rachel Snyder 1, Shintaro Yamada 1, MingQi Li 1, Kyung Hee Oh 2, Jae Hyun Kim 2, Madan Biradar 3, Gokhan Sagdic 3, and Christopher K. Ober 3 1 DuPont Electronics & Industrial, 2 SK hynix Inc., Korea, 3 Cornell University, USA
A4. Computational / Analytical	Chairpersons: Kenji Yoshimoto (Kanazawa Univ.), Sousuke Osawa (JSR)			

Approach for Lithography Processes	11:30-12:00	A04-01	Incorporating advanced scanner models in semiconductor manufacturing (Invited)	Wim Tel, Rob Faessen, Philipp Strack, Pieter Smorenberg, Jaap Karssenberg, Hakki Ergun Cekli, and Seiji Nagahara ASML holding Netherlands, the Netherlands
	12:00-13:30		Lunch time	
	Chairpersons: Kenji Yoshimoto (Kanazawa Univ.), Sousuke Osawa (JSR)			
	13:30-14:00	A04-02	Formulation of Developer Solutions Using Integrated Computational Approaches (Invited)	Yuqing Jin 1, Takehiro Masuda 1, Yuko Tsutsui Ito 1, Takahiro Kozawa 1, Takashi Hasebe 2, Kazuo Sakamoto 2, and Makoto Muramatsu 21 SANKEN, Osaka University, Japan, 2 Tokyo Electron Kyusyu Limited, Japan
	14:00-14:30	A04-03	Molecular dynamics study of early stages of development process (Invited)	Masaaki Yasuda, Ryuki Tanaka, Kousei Tada, and Hiroto Wakamatsu Osaka Metropolitan University, Japan
	14:30-14:50	A04-04	Process and material design for NIL, CMP, and resist synthesis, assisted by Machine learning	Yoshihiko Hirai, Masaru Sasago, Jun Sekiguchi, Takeyasu Saito, and Masaaki Yasuda Osaka Metropolitan University, Japan
	14:50-15:10		Coffee Break	
	Chairpersons: Masaaki Yasuda (Osaka Metropolitan University), Kenji Yoshimoto (Kanazawa Univ.)			
	15:10-15:40	A04-05	Neural Network Molecular Dynamics Simulations on Synthesis Process of MoS2 Thin Films from Molybdenum	Momoji Kubo Tohoku University, Japan

			Ditiocarbamate Molecules (Invited)	
	15:40-16:00	A04-06	Modeling of interactive junction point in directed self-assembly	<u>Kenji Yoshimoto</u> Kanazawa University, Japan
A7. 193 nm Lithography Extension	Chairperson: Yoshio Kawai (Shin-Etsu Chemical)			
	16:10-16:30	A07-01	Development of novel PAG for thick layer photoresist application	<u>Won Seok Lee</u> DuPont Specialty Materials Korea Ltd., Korea
Banquet	17:30-20:00	150 min	Banquet with special events: (Pre-registration or on-site registration is needed)	14F at HOTEL MONTEREY HIMEJI

Small Hall on Thursday, June 26				
Symposium	Time	Number	Presentation Title	Authors
A9. Strategies and Materials for Advanced Packaging, Next Generation MEMS, Flexible Devices	Chairpersons: Takumi Ueno (Shinshu Univ.), Sanjay Malik (Screen SE)			
	09:00-09:30	A09-01	Next Generation Chiplet Technology Development:Focusing on Fine RDL Patterning (Invited)	<u>Masaru Sasago</u> Osaka Metropolitan University, Japan
	09:30-10:00	A09-02	Hybrid Integration for Advanced Electronic-Photonic Packaging (Invited)	<u>Yuma Yoshida</u> , Taiga Sakamoto, Masahiro Matsunaga, Takashi Kawamori, and Masayoshi Nishimoto Resonac Corporation, Japan
	10:00-10:30	A09-03	The Development of Novel Polymer Materials for Advanced MEMS Packaging (Invited)	<u>Takenori Fujiwara</u> Toray Industries, Inc., Japan
	10:30-10:40		Coffee Break	
	Chairpersons: Guillermo Fernandez Zapico (TSMC Japan), Hitoshi Araki (Toray)			

10:40-11:30	A09-04	Creating Innovation for Sustainable World in Partnership with Semiconductor Eco System (Keynote)	<u>Takumi Mikawa</u> SCREEN Semiconductor Solutions, Japan
11:30-11:50	A09-05	Digital Lithography for SWIR Applications Facilitated by Patterning of Novel IR-Pass Resists	<u>Ksenija Varga</u> 1, Lisa Berger 1, Tobias Zenger 1, Boris Považay 1, Hirotaka Takishita 2, Yoshiki Takahashi 2, Yoshinori Taguchi 2, Johannes Koch 3, and Matthias Schicke 3 1 EV Group, Austria, 2 Fujifilm Electronic Materials Japan, Japan, 3 Fujifilm Electronic Materials Europe
11:50-12:10	A09-06	Rheological properties of resin films containing a polymethacrylate having a urea moiety	<u>Hiroshi Matsutani</u> 1, Masahiro Aoshima 1, Kenji Tanaka 1, Bao Li 1, Akitoshi Tanimoto 1, Yasuharu Murakami 1, Xiaodong Ma 2, and Xuesong Jiang 2 1 Resonac Corporation, Japan, 2 Shanghai Jiao Tong University, China
12:10-14:00		Lunch	
Chairpersons: Sanjay Malik (Screen SE), Masayoshi Nishimoto (Resonac)			
14:00-14:30	A09-07	Carrier warpage improvement using non-photosensitive dielectric material for high I/O density organic RDL (Invited)	<u>Guillermo Fernández</u> TSMC Japan 3DIC
14:30-15:00	A09-08	Development of Negative-tone Photosensitive Dielectric Materials for Fine Pitch RDL in Chiplet Integration (Invited)	<u>Toshiyuki Ogata</u> TAIYO HOLDINGS CO., LTD., Japan

	15:00-15:30	A09-09	Atomic-level analysis of Cu/polyimide interface under high temperature storage and the investigation of adhesion degradation mechanism (<i>Invited</i>)	Yugo Kubo Sumitomo Electric Industries, Ltd., Japan
	15:30-15:40		Coffee Break	
	Chirpersons: Ksenija Varga (EV Group), Hitoshi Araki (Toray)			
	15:40-16:30	A09-10	Crack Resistance Evaluation Method of Photoimageable Dielectrics for Redistribution Layer	Kenichi Takeuchi, Chiharu Koga, Tomoaki Shibata, Yu Aoki, and Yukika Aoki Resonac Corporation, Japan
	16:00-16:20	A09-11	Enhanced Inductors and Balun Transformers Performance for 5G-6G Applications with Patterned Magnetic Materials with Special Rinse Solution	Seiya Masuda, Tetsushi Miyata, Hiroaki Idei, Shota Oi, Hiroyuki Suzuki, and Hidenori Takahashi FUJIFILM Corporation, Japan
	16:20-16:40	A09-12	Development of a Novel Negative-Tone Dry Film Resist with PVA Layer for Wiring with 1.5/1.5 μm Line/Space (<i>Invited</i>)	Natsuki Toda, Kei Togasaki, Kensuke Yoshihara, Yosuke Kaguchi, Ayane Mochizuki, Kanako Funai, Hitoshi Onozeki, and Kenichi Iwashita Resonac Corporation, Japan
Banquet	17:30-20:00	150 min	Banquet with special events: (Pre-registration or on-site registration is needed)	14F at HOTEL MONTEREY HIMEJI

Room 408 on Thursday, June 26				
Symposium	Time	Number	Presentation Title	Authors
	Chairperson: Tatsuyuki Nakatani (Okayama Univ. of Sci.)			

B2 (Japanese). Plasma Photochemistry and Functionalization of Polymer Surfaces	09:30-09:50	B02-01	Time Dependence of On the Absorption Spectra of Indigo Carmine Solution	Yuki Jonen 1, Yamato Torii 1, Hirofumi Kurita 2, Tatsuru Shirafuji 1, and Jun- Seok Oh 1 1 Osaka Metropolitan University, Japan, 2 Toyohashi University of Technology, Japan
	09:50-10:10	B02-02	Electrical and Optical Characteristics of Atmospheric-Pressure Nitrogen Plasma Using a Micro Hollow Array Electrode	Fumiya Taniguchi 1, Keishi Yanai 1,2, Tatsuru Shirafuji 1, and Jun-Seok Oh 1 1 Osaka Metropolitan University, Japan, 2 Asahi Polyslider Co., Ltd., Japan
	10:10-10:30	B02-03	Modulating the Concentrations of Reactive Oxygen and Nitrogen Species in Plasma-activated Water Using Dielectric Barrier Discharge with Various Gases	Soma Hosoi 1, Naoki Azuma 1, Sushil Kumar KC 2, Endre J. Szili2, Akimitsu Hatta 3, Tatsuru Shirafuji 1, and Jun-Seok Oh 11 Osaka Metropolitan University, Japan, 2 University of South Australia, Australia, 3 Kochi University of Technology, Japan
	10:30-10:50	B02-04	Modification of Polymer Surface Using Ozone	Hiroto Mori 1, Kohei Yamashita 1, Tatsuru Shirafuji 1, Jun-Seok Oh 1, and Akimitsu Hatta 2 1 Osaka Metropolitan University, Japan, 2 Kochi University of Technology, Japan
	10:50-11:00		Coffee Break	
	Chairperson: Jun-Seok Oh (Osaka Metropolitan University)			
	11:00-11:20	B02-05	RF-PECVD 法により 成膜された DLC 膜へ のスペクトルデータ 駆動科学の適用	小佐野 芳寿 1,2, 中 谷 達行 1,3 1 岡山理科大学, 2 三菱鉛筆株式会社, 3 慶應義塾大学

	11:20-11:40	B02-06	圧力勾配型スパッタ法が DLC 膜の成膜と膜特性に及ぼす影響	米澤 健 1,2, 小佐野芳寿 1, 中谷 達行 1,3 1 岡山理科大学, 2 ケニックス株式会社, 3 慶應義塾大学
	11:40-12:00	B02-07	疎水性鎖にピリジル基を有する両親媒性ブロック共重合体の構築とその pH 応答性高分子ミセルへの応用	近藤 伸一 1, 土井 直樹 1, 笹井 泰志 2, 山内 行玄 3 1 岐阜薬科大学, 2 岐阜医療科学大学, 3 松山大学
Banquet	17:30-20:00	150 min	Banquet with special events: (Pre-registration or on-site registration is needed)	14F at HOTEL MONTEREY HIMEJI

Room 409 on Thursday, June 26				
Symposium	Time	Number	Presentation Title	Authors
B3-5(Japanese) General Scopes of Photopolymer Science and Technology	Chairpersons: Hideo Horibe (Osaka Metropolitan University), Masashi Yamamoto (Kagawa KOSEN)			
	10:00-10:20	B03-01	レーザーを用いたレジスト剥離における走査照射条件の最適化	森下 沙夢 1, 面地 和樹 1, 安國 良平 1, 吉村 政志 2, 山本 竜也 3, 堀邊 英夫 3, 神村 共住 1,2 1 大阪工業大学, 2 大阪大学, 3 大阪公立大学
	10:20-10:40	B03-02	回転円盤上における二流体ジェット噴射	池ヶ谷 充貴也 1, 土居 尚人 1, 高橋 広毅 2, 今井 正芳 2, 真田

		によって形成された 液膜構造	俊之 1 1 静岡大学, 2 荏原 製作所
10:40-11:05	B03-03	マイクロ波励起水蒸 気プラズマアッシン グプロセスにおける 基板ホルダへの RF バイアス電圧印加効 果 (Invited)	石島達夫 金沢大学
11:05-11:15		Coffee Break	
Chairpersons: Tatsuo Ishijima (Kanazawa Univ.), Toshiyuki Sanada (Shizuoka Univ.)			
11:15-11:35	B03-04	三成分化学増幅型感 光性ポリイミドにお けるカルボン酸型溶 解抑制剤による感度 と解像度の向上	Daiki Madokoro 1, Katsuaki Takashima 1, Kohei Yamaoka 2, Susumu Tanaka 2, Tomoyuki Yuba 2, and Hideo Horibe 1 1 Osaka Metropolitan University, Japan, 2 Toray Industries, Inc., Japan
11:35-11:55	B03-05	3 成分化学増幅型ノ ボラックレジストに おける溶解抑制剤の 脱保護活性化エネル ギーの評価 (2)	井東七ツ希, 間所大 貴, 高嶋克彰, 堀邊 英夫大阪公立大学
11:55-12:15	B03-06	3 成分化学増幅型レ ジストにおける溶解 抑制剤の化学構造と レジスト特性との関 係	嶋田野乃佳, 高嶋克 彰, 堀邊英夫 大阪公立大学
Chairperson: Teruaki Hayakawa (Institute of Science Tokyo)			

A13 & B1(Japanese) Polyimides and High Thermally Stable Resins - Functionalization and Practical Applications-	13:00-13:30	B01-01	Nonstoichiometric Step-Growth Polymerization Based on Intramolecular Catalyst Transfer System (Invited)	<u>Tomoya Higashihara</u> Yamagata University, Japan
	13:30-13:50	A13-01	Highly Reliable Polyimide-based Thermal Interface Material Sheet for Power Modules	<u>Hiroki Mori</u> , Yohei Sakabe, and Akira Shimada Toray Industries, Inc., Japan
	Chairperson: Hitoshi Araki (Toray)			
	13:50-14:10	A13-02	Synthesis of Low Dielectric Poly(esterimide)s Incorporating Double- Decker Silsesquioxane Units	<u>Natsuko Sashi</u> , Erina Yoshida, Hayato Maeda, Kan Hatakeyama-Sato, Yuta Nabae, Ririka Sawada, Shinji Ando, and Teruaki Hayakawa Institute of Science Tokyo, Japan
	14:10-14:20		Coffee Break	
	14:20-14:40	A13-03	Synthesis and Dielectric Properties of Silicon-Containing Hydrocarbon-Based Polymers via Hydrosilylation Polymerization	<u>Yuka Azuma</u> , Riku Takahashi, Kan Hatakeyama-Sato, Yuta Nabae, and Teruaki Hayakawa Institute of Science Tokyo, Japan
	14:40-15:00	A13-04	Synthesis and Dielectric Properties of Poly(phenylene ether) Bearing Bulky Side Chains	<u>Kentaro Sone</u> , Hayato Maeda, Kan Hatakeyama-Sato, Yuta Nabae, and Teruaki Hayakawa Institute of Science Tokyo, Japan
	Chairperson: Kenji Miyao (Sumitomo Bakelite)			
	15:00-15:20	A13-05	Influence of alkyl length on the morphology and higher-order structure of poly(amic acid) flower-like particles	<u>Yuqian Chen</u> , Kan Hatakeyama-Sato, Yuta Nabae, and Teruaki Hayakawa Institute of Science Tokyo, Japan

	15:20-15:40	A13-06	Synthesis of Negative-Type Photosensitive Polyimides Using 2-Hydroxyethyl Methacrylate as a Crosslinking Agent and their Dielectric Constant and Dielectric Loss Tangent.	<u>Koki Matsuo</u> 1, Hayato Maeda 1, Riku Takahashi 1, Makiko Irie 2, Kazuaki Ebisawa 2, Kan Hatakeyama-Sato 1, Yuta Nabae 1, and Teruaki Hayakawa 1 1 Institute of Science Tokyo, Japan, 2 Tokyo Ohka Kogyo Co. Ltd., Japan
	15:40-16:00	A13-07	Synthesis and Characterization of an Epoxy Monomer with Six Epoxy Groups and its Thermosetting Resin	<u>Takahisa Hiramatsu</u> , Rika Marui, Kan Hatakeyama-Sato, Yuta Nabae, and Teruaki Hayakawa Institute of Science Tokyo, Japan
Banquet	17:30-20:00	150 min	Banquet with special events: (Pre-registration or on-site registration is needed)	14F at HOTEL MONTEREY HIMEJI

PROGRAM ON FRIDAY, JUNE 27

Medium Hall on Friday, June 27				
Symposium	Time	Number	Presentation Title	Authors
A5. EUV Lithography	Chairpersons: Takeo Watanabe (Univ. of Hyogo), Ethan Choong Bong Lee (Samsung SDI)			
	09:00-09:30	A05-05	Patterning materials in the era of high NA EUV Lithography (Invited)	Danilo De Simone IMEC, Belgium
	09:30-10:00	A05-06	EUV-FEL as a future light source for advanced lithography (Invited)	Hiroshi Kawata, Yosuke Honda, Norio Nakamura, Ryukou Kato, Hiroshi Sakai, Kimichika Tsuchiya, Yoshinori Tanimoto, Miho Shimada, Masahiro Yamamoto, Takanori Tanikawa, Olga Tanaka, Takashi Obina, Shinichiro Michizono High Energy Accelerator Research Organization (KEK), Japan
	10:00-10:30	A05-07	New Activity of EUV Light Source for Semiconductor Manufacturing in Kyushu-University (Invited)	Yukihiko Yamagata 1, Hakaru Mizoguchi 1,2, Kentaro Tomita 3, Daisuke Nakamura 1, Takeshi Higashiguchi 4, Atsushi Sunahara 5, Katsunobu Nishihara 6, Takashi Toshima 2, Hiroki Kondo 1, Takuji Sakamoto 2, Tanemasa Asano 2 and Masaharu Shiratani 1,2 1 Kyush University, Japan, 2 EUV Photon Co. Ltd., Japan, 3 Hokkaido University, Japan, 4 Utsunomiya University, Japan, 5

			Purdue University, USA, 6 Osaka University, Japan
10:30-10:50		Coffee Break	
Chairpersons: Hiroto Kudoh (Kansai Univ.), Patrick Naulleau (EUV Tech)			
10:50-11:10	A05-08	Development of Beyond EUV Interference Lithography tool at NewSUBARU	<u>Ryuta Shiga</u> , Shinji Yamakawa, and Tetsuo Harada University of Hyogo, Japan
11:10-11:30	A05-09	Evaluation of Resists Exposed using sub- 200 eV Electron Beam towards Beyond-EUV Lithography.	<u>Ryuichi Yamasaki</u> , Shinji Yamakawa, and Tetsuo Harada University of Hyogo, Japan
11:30-12:00	A05-10	Resist imaging by laser-based photoemission electron microscopy (Invited)	<u>Toshiyuki Taniuchi</u> The University of Tokyo, Japan
12:00-12:20	A05-11	Acquisition of micron- scale chemical mapping image of resist by PEEM	<u>Shinji Yamakawa</u> , Tsukasa Sasakura, and Tetsuo Harada University of Hyogo, Japan
12:20-14:00		Lunch	
Chairpersons: Shinji Yamakawa (Univ. of Hyogo), Robert Brainard (SUNY)			
14:00-14:30	A05-12	Inspection of next generation hybrid EUV resists with NP-SIMS (Invited)	Gregrey Swieca 1, Won-Il Lee 2, Shixian Ha 2, Nikhil Tiwale 3, Chang-Yong Nam 2,3, and <u>Michael J. Eller</u> 1 1 California State University, USA, 2 Stony Brook

			University, USA, 3 Brookhaven National Laboratory, USA
14:30-15:00	A05-13	Characterization of latent image of photoresist via critical- dimension resonant soft X-ray scattering (Invited)	Qi Zhang, Kas Andrlé, Weilun Chao, Zhengxing Peng, Warren Holcomb, Ryan Miyakawa, Dinesh Kumar, Alexander Hexemer, Patrick Naulleau, Bruno La Fontaine, Ricardo Ruiz, and Cheng Wang Lawrence Berkeley National Lab, USA
15:00-15:20	A05-14	Nanoscale resist pattern defects clustered in the micron region found by soft X- ray microscopy	Takeharu Motokawa 1, Shuhei Iguchi 2, Shinji Yamakawa 2, Tetsuo Harada 2, and Takeo Watanabe 2 1 KIOXIA Corporation, Japan, 2 University of Hyogo, Japan
15:20-15:40		Coffee Break	
Chairpersons: Sousuke Oosawa (JSR), Michael Eller (California State Univ.)			
15:40-16:00	A05-15	Evaluation of Inorganic-organic Hybrid Resist Materials with ultrafast coherent high harmonic generation (HHG) EUV system developed in QST	Hiroki Yamamoto, Thanh-Hung Dinh, and Masahiko Ishino National Institutes for Quantum Science and Technology (QST), Japan

	16:00-16:20	A05-16	Multi-Trigger Resists: Modeling and Simulation Results	<u>Thiago J. dos Santos</u> 1, Andreas Erdmann 1, Alex P. G. Robinson 2, 3, Alexandra McClelland 2, Carmen Popescu 2, Bernardo Oyarzún 4, Joost van Bree 4, and Mark van de Kerkhof 4 1 Fraunhofer Institute for Integrated Systems and Device Technol., Germany, 2 Irresistible Materials, UK, 3 University of Birmingham, UK, 4 ASML Netherlands, the Netherlands
	16:20-16:40	A05-17	PFAS-free rinse materials for pattern collapse mitigation in EUV lithography	<u>Raymond Jin</u> , Kazuma Yamamoto, Naoki Matsumoto, Maki Ishii, Miho Yamaguchi, Yusuke Hama, and Takuo Endo Merck Electronics, Japan
Closing Remarks	16:45-16:55	CR	Closing Remarks	<u>Takeo Watanabe</u> SPST

Small Hall on Friday, June 27				
Symposium	Time	Number	Presentation Title	Authors
A10. Chemistry for Advanced Photopolymer Science	Chairpersons: Haruyuki Okamura (Osaka Metropolitan Univ.), Zhiquan Li (Guangdong Univ. Technol.)			
	13:00-13:25	A10-01	Breaking boundaries of photoinitiators: new ways to improve the reactivity of radical photopolymerization (Invited)	<u>Xavier Allonas</u> Univeristy of Haute Alsace, France

13:25-13:45	A10-02	A Predictive Model for Polymerization Shrinkage Stress Derived from Photocuring Kinetics	Gaoxiang Luo, Yusuke Hiejima, and Kentaro Taki Kanazawa university, Japan
13:45-14:05	A10-03	In-situ investigation of as-cast homopolymer-based resists	Markus Langner 1, Gregrey Swieca 1, Won-Il Lee 2, Shixian Ha 2, Nikhil Tiwale 3, Chang-Yong Nam 2,3, and Michael J. Eller 1 1 California State University, USA, 2 Stony Brook University, USA, 3 Brookhaven National Laboratory, USA
14:05-14:25	A10-04	Machine Learning-Assisted Dissolution Behavior Investigation of ArF Lithographic Materials	Xia Lin 1, Xiyan Dong 2, Haofan Ji 1, Yuhua Li 1, Yisong Huo 1, Wei Li 1, Liwen Mu 2, Xiaohua Lu 2, and Ruzhi M Zhang 1 1 Suzhou Laboratory, China, 2 Nanjing Tech University, China
14:25-14:40		Coffee Break	
Chairpersons: Kentaro Taki (Kanazawa Univ.), Xavier Allonas (Univ. Haute Alsace)			
14:40-15:05	A10-05	NIR induced anionic photopolymerization based on upconversion photochemistry (Invited)	Quanping Xie, Yaoxin Huang, Pin Yang, and Zhiquan Li Guangdong University of Technology, China
15:05-15:25	A10-06	Interference of Photobase generators on Covalent Bond Exchanges in Vinylogous Urea Vitrimers	Kanji Suyama 1, Hirokazu Hayashi 2, and Hideki Tachi 2 1 Osaka Metropolitan University, Japan, 2 Osaka Research Institute of Industrial Science and Technology (ORIST), Japan

	15:25-15:45	A10-07	Relationship between photochemical properties of oxime esters and their efficiency as photoinitiators for free radical induced photopolymerization	<u>Arthur Guenan</u> ¹ , Xavier Allonas ¹ , L. Feiler ² , R. Frantz ³ , and Céline Croutxé-Barghorn ¹ ¹ University of Haute Alsace, France, ² BASF Schweiz AG, Switzerland
	15:45-16:05	A10-08	Photocured Blended Films of Diarylfluorene having Naphthalene Moieties and TiO ₂ with High Refractive Indices	<u>Haruyuki Okamura</u> ¹ , Keiko Minokami ² , and Shinsuke Miyauchi ² ¹ Osaka Metropolitan University, Japan, ² Osaka Gas Chemicals, Japan

Room 408 on Friday, June 27				
Symposium	Time	Number	Presentation Title	Authors
A11. Organic and Hybrid Materials for Photovoltaic and Optoelectronic Devices	Chairpersons: Itaru Osaka (Hiroshima Univ.), Hideo Ohkita (Kyoto Univ.)			
	09:00-09:35	A11-01	Design of low complexity active materials for photovoltaic applications (Keynote)	<u>Martin Heeney</u> King Abdullah University of Science and Technology (KAUST), Saudi Arabia
	09:35-10:00	A11-02	Development of Fused-Ring Acceptors for Green-Light Wavelength-Selective Organic Solar Cells (Invited)	<u>Seihou Jinnai</u> , Yuto Shiono, and Yutaka Ie Osaka University, Japan
	10:00-10:15	A11-03	A Strategically Designed Easily-Synthesized Polymer Donor for Efficient Organic Photovoltaics	<u>Kodai Yamanaka</u> , Tsubasa Mikie, Itaru Osaka Hiroshima University, Japan
	10:15-10:25		Coffee Break	
	Chairpersons: Itaru Osaka (Hiroshima Univ.), Hideo Ohkita (Kyoto Univ.)			
	10:25-10:50	A11-04	Charge Accumulation Behavior and Persistent	<u>Ryota Kabe</u> OIST, Japan

		Luminescence in Organic Materials (Invited)	
10:50-11:15	A11-05	Organic/Hybrid Thermoelectric Materials and Devices (Invited)	Cheng-Liang Liu, National Taiwan University, Taiwan
11:15-11:30	A11-06	Fabrication of Organic Field Effect Transistor Using Low Temperature Annealed Fluorinated Block Copolymer	Tangjun Zhang, Xiaofei Qian, and Hai Deng Fudan University, China
11:30-12:50		Lunch	
Chairpersons: Itaru Osaka (Hiroshima Univ.), Hideo Ohkita (Kyoto Univ.)			
12:50-13:15	A11-07	Synthesis and Photovoltaic Properties of Non-Fullerene Acceptors with Quinoxaline-Based Central Unit (Invited)	Tomokazu Umeyama, Kaho Yasuzato, Seiya Sugiura, Kenta Yamada, Jun-ichi Inamoto, Shunjiro Fujii, and Wataru Suzuki University of Hyogo, Japan
13:15-13:40	A11-08	Influence of Vibronic Interactions on Charge Transfer Excitons in Nonfullerene Organic Photovoltaics (Invited)	Azusa Muraoka Japan Women's University, Japan
13:40-14:05	A11-09	ESR analysis of charge-transporting materials in non-fullerene organic solar cells (Invited)	Atsushi Sato, and Kazuhiro Marumoto University of Tsukuba, Japan
14:05-14:15		Coffee Break	
Chairpersons: Itaru Osaka (Hiroshima Univ.), Hideo Ohkita (Kyoto Univ.)			
14:15-14:40	A11-10	Enhancement of Organic Solar Cell Efficiency via Incorporation of Lead Sulfide Quantum Dots (Invited)	Qing Shen, Kei Takahashi, Yuyao Wei, Taro Toyoda, and Shuzi Hayase The University of Electro-Communications, Japan

	14:40-15:05	A11-11	Charge carrier dynamics at lead halide perovskite (Invited)	<u>Yasuhiro Tachiana</u> 1,2 1 RMIT University, Australia, 2 Osaka University, Japan
	15:05-15:20	A11-12	Charge Transfer at the PEDOT:PSS/Perovskite Interface in RP Sn Perovskite Solar Cells Elucidated by Operando ESR Spectroscopy	<u>Yizhou Chen</u> , Seira Yamaguchi, Atsushi Sato, Kaito Inoue, and Kazuhiro Marumoto University of Tsukuba, Japan
	15:20-15:30		Coffee Break	
	Chairpersons: Itaru Osaka (Hiroshima Univ.), Hideo Ohkita (Kyoto Univ.)			
	15:30-15:55	A11-13	Chlorine-mediated organic conjugated materials and quasi-planar heterojunction devices (Invited)	<u>Feng He</u> Southern University of Science and Technology, China
	15:55-16:20	A11-14	Molecular Orientation and Structure Controls from Film Surface for Organic Electronics (Invited)	<u>Keisuke Tajima</u> RIKEN Center for Emergent Matter Science (CEMS), Japan
	16:20-16:45	A11-15	Development of Efficient Porphyrin Sensitizers for Dye-Sensitized Solar Cells Using Copper Redox Shuttles (Invited)	<u>Tomohiro Higashino</u> Kyoto University, Japan

Room 409 on Friday, June 27				
Symposium	Time	Number	Presentation Title	Authors
B3. General Scopes of Photopolymer Science and Technology	Chairperson: Teruaki Hayakawa (Institute of Science Tokyo)			
	09:00-09:20	B03-07	Glycidyl Methacrylate-Grafted Polysilanes: Synthesis and Properties	<u>Yukihito Matsuura</u> 1, Sakino Kikuchi 1, and Tomoharu Tachikawa 2 1 National Institute of Technology, Nara College, Japan, 2 Osaka, Gas Chemicals Co., Ltd., Japan

09:20-09:40	B03-08	アゾベンゼン系分子 ガラス微粒子のヒド ロキシプロピルセル ロースハイドロゲル 中におけるキラルフ ォトメカニカル挙動	青松義貴 1、大背戸 豊 2、倉賀野正弘 1、徳樂清孝 1、 <u>中 野英之</u> 1 1 室蘭工大, 2 奈良 女子大
09:40-10:00	B03-09	三つのシアノスチル ベン骨格を有する新 規アモルファス分子 蛍光体を用いる発光 パターン形成	島崎唯人、 <u>中野英 之</u> 室蘭工大
10:00-10:20	B03-10	ヒドロキシピリジル 基を導入したメタク リル光接着材料の作 製	<u>古谷 昌大</u> 、松井 実玖 福井工業高専
10:20-10:40	B03-11	チオキサントン骨格 並びに α -解裂型骨格 を有する複合型光ラ ジカル重合開始剤	宮川 信一、 <u>小林 彪 真</u> 千葉大学