ISMP 2025 (Venue: Bareumi Hotel Inter-Burgo Daegu, Main Building 1F & 2F)

November 4th, 2025 (Tue)

15:30-18:00	Registration (Convention Hall Lobby, Main Building 2F)

November 5th, 2025 (Wed)

Room	Convention Hall A+B (600) 2F	Convention Hall C (300) 2F	Joyful Hall (300) 1F	Happy Hall (150) 1F	Ladies Hall (60) 2F	Amante Hall (50) 2F
Topic	**A. 3D, 2.5D Integration for AI Systems (Chiplets)**	**B. Electrical Design and Performance**	**C. Advanced Packaging Materials**		**Special Session 1 (105 min)**	**Special Session 2 (105 min)**
Session Chair	Jang Jinwook	Han Ki Jin	Kim Sangwon			
9:00-9:25	I1-01(Invited) Jan Vardaman, TechSearch International, Inc., USA **AI Packaging Trends and Challenges**	I1-02 (Invited) Kim SoYoung, Sungkyunkwan University, Korea **AI-Driven Approaches to Semiconductor Package Design**	I1-03 (Invited) Akane Tsukahara, Taiyo Ink Mfg. Co., Ltd., Japan **Development of Low-Loss Photo-Dielectric Dry Film for Redistribution Layers in High-Speed Packaging**			
9:25-9:45	O1-01 Lee Eun Jung, SK inc. materials, Korea **Beyond Materials: Process Optimization Strategies for Advanced Mold Applications in 2.5D and HBM Technologies**	O1-05 Lee Heeseok, Samsung Electronics Co., Ltd., Korea **Enhancing Computing Performance of Mobile SOC based on Co-Optimization including Die, Package and System**	O1-09 Jeong Seyoung, Ntrium Inc., Korea **Research on New Materials to Improve the Mechanical and Electrical Properties of Semiconductor Packages**			
9:45-10:05	O1-02 Kim Jun-Su, Hana Micron Inc., Korea **Design and Process Development of the Fine-Pitch Organic RDL for Bridge-Die based 2.xD Package**	O1-06 Park Heechun, Ulsan National Institute of Science and Technology (UNIST), Korea **An EDA Perspective on Design and Optimization for Chiplet-Based Heterogeneous Integration**	I1-04 9:45-10:10 (Invited) Hironari Mori, Sumitomo Bakelite Co., Ltd., Japan **Development of Low Temperature Curable Photosensitive Material for Redistribution Layer**			
10:05-10:25	O1-03 Kazuki Noguchi, Sanyu Rec Co., Ltd., Japan **Optimization of Underfill for 2.5D Multi-Chip Packages Using Simulation**	O1-07 Chae Suin, Hanyang University & Korea Electronics Technology Institute (KETI), Korea **Design and Implementation of Bridge Embedded RDL Interposer for High-Speed Interfaces based on UCIe Standard**	O1-10 10:10-10:30 Jung Sooim, Doosan Corporation Electro-Materials, Korea **Development of Novel Substrate Technology for Next-Generation Memory Semiconductor Applications**			
10:25-10:45	O1-04 Lee Seok Won, Samsung Electronics Co., Ltd., Korea **2.3D Package Development Based on Panel Level Packaging Technology**	O1-08 Jung Haksoon, Ulsan National Institute of Science and Technology (UNIST), Korea **Advanced Interconnect Design in 3D-Printed Fan-Out Interposers**	O1-11 10:30-10:50 Lee Sun-Woo, Korea Advanced Institute of Science and Technology (KAIST), Korea **Hybrid Multibarrier Strategies for Mechanical and Environmental Reliability: Silamer/Al_2O_3 and Parylene-C/Nanolaminate Thin-Film Encapsulation**			
10:45-11:10	Break Time (25 min)					
Session Chair	Choi Changhwan					
11:10-11:40	PT1 Plenary Talk 1 (Convention Hall A+B) - Bryan Black, Chipletz, Inc., USA 1 **Implications of Chiplets**					
11:40-12:10	KT1 Keynote Talk 1 (Convention Hall A+B) - Lee Choon Heung, Intel Corporation, USA **Future of AI Advanced Packaging**					
12:10-13:30	Lunch (80 min)					
Session Chair	Kim Tae-il					
13:30-14:00	KT2 Keynote Talk 2 (Convention Hall A+B) - Kim Dae-Woo, Samsung Electronics Co., Ltd., Korea **The New Era of System Package**					
14:00-14:30	KT3 Keynote Talk 3 (Convention Hall A+B) - Lim Sung Kyu, USC (University of Southern California), USA **AI-Driven Design Automation for Multi-Chip Integration in AI Chips**					
14:30-14:50	Break Time (20 min)					

Topic	E. Hybrid Bonding	F. Electrical Design and Performance	G. Advanced Packaging Materials	H. IMPACT Session	Special Session 3 (85 min)	Special Session 4 (85 min)
Session Chair	Lee Eun-Ho	Shin Hyunseong	Woo Yun Sung	Kim Taek-soo		
14:50-15:15	I1-05 (Invited) An Jinho, Applied Materials, Inc., Korea **Innovative Solutions in Addressing the Complexity of Hybrid Copper Bonding Technology**	I1-06 (Invited) Wisnu Murti, ELSPES Inc., Korea **Enabling Advanced Integration with Deep Trench Silicon Capacitors**	I1-07 (Invited) Takatoshi Ikeuchi, Resonac Corporation, Japan **Co-Creating the Future of Materials Innovation in Advanced Packaging**	I1-08 14:50-15:15 (Invited) Song Jenn-Ming, National Chung Hsing University, Taiwan **Light Enhanced Direct Metal Bonding for Advanced Electronic Assembly**		
15:15-15:35	O1-12 Kim Sungdong, Seoul National University of Science and Education, Korea **Methods to Enhance SiO_2 Bonding and Reduce Cu Oxide Formation in Cu/SiO_2 Hybrid Bonding**	O1-15 Kim Hong Seok, Hana Micron inc., Korea **Signal Integrity Analysis of RDL by Universal Chiplet Interconnect Express (UCIe) Standard for Advanced Package**	O1-18 Jeong Seyoung, Ntrium Inc., Korea **Thermal Interface Materials and Processes for Simple and Highly Thermal Conductive Advanced Package Structures**	I1-09 15:15-15:40 (Invited) Lee Chang-Chun, National Tsing Hua University, Taiwan **Warpage Estimation and Demonstration of Panel-level Fan-out Packaging with Cu Pillars Applied on a Highly Integrated Architecture**		
15:35-15:55	O1-13 Han Haneul, Hanyang University, Korea **Additive-Free DC Electrodeposition of (111)-Oriented Nanotwinned Copper for Reliable Cu–Cu Bonding**	O1-16 Choi Seongkyu, Sungkyunkwan University & Korea Institute of Industrial Technology (KITECH), Korea **Warpage-based Local Strain Analysis for Reliability Evaluation of Board-level Packages Using Digital Image Correlation**	O1-19 Satoshi Osawa, Nihon Gosei Kako Co., Ltd., Japan **A Liquid Epoxy Encapsulant with Excellent Weather Resistance, Long-term Reliability and Casting Properties**	I1-10 15:40-16:05 (Invited) Wu Albert T., National Central University, Taiwan **Sintering Behavior and Bonding Mechanisms of Copper Nanoparticles for Advanced Electronic Packaging**		
15:55-16:15	O1-14 Yun Youngsu, SK Hynix Inc., Korea **Analysis on the Effect of Process Parameters on Hybrid Bonding Reliability**	O1-17 Ma Boo Soo, University of Suwon, Korea, Korea **MSG (Mechanical Stress by Generative model): Clustering-Aware, Physics-Informed Deep Surrogates for Full-Field Stress Prediction in Semiconductor Packaging**	O1-20 Park Soojae, OXWIRES, Korea **Gas-Free & Nano TiO_2-Coated Ag Bonding Wire for Replacing Au Wire**	I1-11 16:05-16:30 (Invited) Lee Ming-Tsang, National Tsing Hua University, Taiwan **Sustainable Laser Micro/Nanofabrication for 3D Electronics: Novel Processes Development, Transport Phenomena, and Digital Twin**		
16:15-16:35	Break Time (20 min)			Break Time (5 min)	Break time (20 min)	

Topic	I. Hybrid Bonding	J. Equipment and Tools		L. ICEP Session	Special Session 5 (85 min)	Special Session 6 *(Closed)*
Session Chair	Lee Eun-Ho	Moon Hyunkyu		Yasuhiro Morikawa & Go Hamasaka		Kim Deok-Kee
16:35-17:00	I1-12 (Invited) Cho Won-Seob, BASF, Korea **Recent Development in Cu-Cu Hybrid Bonding: BASF's Innovations and Key Challenge**	I1-14 (Invited) Park YongKeun, Tomocube Inc., Korea **Holotomography: Advancing Metrology and Inspection for Microelectronics and Advanced Packaging**	Sponsor Night Setting	I1-15 16:35-17:00 (Invited) Go Hamasaka, Tokuyama Corporation, Japan **High Thermal Conductive Aluminum Nitride Fillers for Thermal Management in Electronic Packaging**		반도체 첨단 패키징 기업 연계 융합 인재 양성 (세종대학교)
17:00-17:20	I1-13 17:00-17:25 (Invited) Kasbauer Thomas, EV Group, Austria **Enalbing 3D Integration: Advanced in Hybrid Wafer Bonding Technology**	O1-23 Yee Hooi Low, Evatec AG, Taiwan **Thin Film Deposition Developments to Enable Heterogeneous Integration with Panel Scale Solution**		I1-16 17:00-17:25 (Invited) Shiori Yamada, ULVAC, Inc., Japan **Manufacturing Transformation Era: Process Solution Technologies for Panel-Level Packaging Based on Wafer-Level Quality**		
17:20-17:40	O1-21 17:25-17:45 Kang Sukkyung, Korea Advanced Institute of Science and Technology (KAIST), Korea **Plasma-Assisted Chemical-Mechanical Polishing for Cu/Polymer Hybrid Bonding Interfaces**	O1-24 Choi Ji-Hoon, Aqlaser Inc., Korea **Laser Application Technology for Advanced Packaged Glass Substrate (TGV, GCS) Manufacturing**		I1-17 17:25-17:50 (Invited) Shinji Kato, Mitsubishi Materials Corporation, Japan **Introduction of Rectangle Si Panel Technology for Advanced Packaging**		
17:40-18:00	O1-22 17:45-18:05 Lee Jung Shin, Samsung Electronics Co., Ltd., Korea **Development of Wet Atomic Layer Etching Process for Cu Surface Topography Control in Hybrid Bonding Applications**	O1-25 Zia Karim, Yield Engineering Systems, USA **Resolving Critical Defects Using Specialized Fluxless Reflow for Advanced HBM Applications**		I1-18 17:50-18:15 (Invited) Hirotaka Satori, EBARA Corporation, Japan **Integrated Systems Strategy from the Viewpoint of an Equipment Supplier in the Advanced Packaging Era**		
18:00-18:20	Break Time (20 min)			Break Time (5 min)		
18:20-20:20	**Sponsor Night and Lucky Draw (Joyful Hall, 1F)**					

November 6th, 2025 (Thu)

Room	Convention Hall A+B (600) 2F	Convention Hall C (300) 2F	Joyful Hall (300) 1F	Happy Hall (150) 1F	Ladies Hall (60) 2F	Amante Hall (50) 2F
Topic	M. Fine Pitch Organic Substrates and Interposers	N. Fine Pitch Micro-bump Bonding	O. IEIE Session	P. Thermal Engineering	Special Session 7 (85 min)	Special Session 8 (85 min)
Session Chair	Kim Myung Jun	Chu Kunmo	Kim Jonghoon	Kim Jaechoon	Session Chair	Shin Jung Ho
9:00-9:25	I2-01 (Invited) Ryohei Oishi, Ajinomoto Co., Inc., Japan **Insulation Materials for Advanced Packaging Applications**	I2-02 (Invited) Yoo Sehoon, Korea Institute of Industrial Technology (KITECH), Korea **Microstructural and Mechanical Reliability of Fine-Pitch Interconnects Formed by LAB and TCB**	I2-03 (Invited) Koo BonTae, Electronics and Telecommunications Research Institute (ETRI), Korea **Energy-Efficient 10-Chiplet Hyperscale AI Semiconductor on Advanced Large-Scale RDL Package**	I2-04 (Invited) Im Yunhyeok, Georgia Institute of Technology, USA **Holistic Thermal Solution for Heterogeneously Integrated High-Power Packages**		
9:25-9:45	O2-01 Lee Jung Won, Nepes Corporation, Korea **Fan-Out Embedded Bridge Interposer for Scalable Heterogeneous Integration of NPUs and HBMs**	O2-05 Li Zihao, Kokusai Electric Corporation, Japan **Enhancing Capillary Underfill Flow Control for 3D Heterogenous Integration with ALD-based Surface Treatments**	O2-09 Jang Jin-Wook, Hana Micron Inc., Korea **Critical Role of the Advanced Packaging from Components to Systems in the Era of AI**	O2-13 Jang Sukwon, Samsung Electronics Co., Ltd. & Sungkyunkwan University, Korea **Efficient Thermal Modeling of 3D Packages Using a New Structure of Thermal Network with Deep Learning**		
9:45-10:05	O2-02 Park Hyun, Dong-A University, Korea **Microstructural Characteristics and Filling Behavior of Organic Additive-based Cu Electrodeposition in Microvia for Semiconductor Packages**	O2-06 Shin Jungho, Electronics and Telecommunications Research Institute (ETRI), Korea **Selective Formation of Bonding Materials on Micro-bumps via Laser Non-conductive Film Dipping for 20 μm Pitch Interconnections**	O2-10 Kim Deok-Kee, Sejong University, Korea **Heterogeneous Integration through 2.5D Silicon Interposers for Next-Generation AI and HPC Applications**	O2-14 Lee Insik, Korea Advanced Institute of Science and Technology (KAIST) & Samsung Electronics Co., Ltd., Korea **Thermo-hydraulic Performance Evaluation of Direct Liquid Jet-impingement Cooling with Single and Multi-phase Fluids for Chiplet Packaging**		균질 레이저 기반 동시 전사 · 접합 소재 및 공정 기술 개발 (09:00~14:30)
10:05-10:25	O2-03 Kim Kee-Joon, LG Electronics Inc., Korea **High Resolution Laser Direct Imaging (LDI) Technology for Advanced Packaging Industry**	O2-07 Lee Jeeeun, Korea Advanced Institute of Science and Technology (KAIST), Korea **Flow Analysis of the Capillary Underfill Process using Physics Informed Neural Networks**	O2-11 Jung Sungyeop, Korea University, Korea **Electrical Design Optimization by AI and Machine Learning for Redistribution Layer Interposers**	O2-15 Jeon Ju-Won, Sungkyunkwan University & Hanwha NxMD Corporation, Korea **Experimental Study of Confined Jet Array Impingement Boiling on Pin-Finned Surfaces under Subcooled Inlet Conditions**		
10:25-10:45	O2-04 Kim Juyoul, Daeduck Electronics Co., Ltd., Korea **Innovative Architecture for Component Embedding on Thick Core FCBGA Substrates**	O2-08 Park JongChan, STATS ChipPAC Korea Limited., Korea **Surface Activation Beneath the Flip Chip by Plasma Treatment and Intuitive Inspection Methods for Surface Energy**	O2-12 Shin SangHoon, Hanyang University, Korea **Advanced Packaging and Reliability: Technologies Shaping the Next Generation**	O2-16 Kim Seongju, Ulsan National Institute of Science and Technology (UNIST), Korea **Reinforcement Learning–Driven Custom Liquid Micro-Channel Design for Direct Liquid Cooling in Advanced Packaging**		
10:45-10:55	Break Time (10 min)					
10:55-11:10	**Opening Remark - Young-Chang Joo / KMEPS (Convention Hall A+B)**					
Session Chair	Sohn Yoonchul					
11:10-11:40	PT2 Plenary Talk 2 (Convention Hall A+B) - Son Ho-Young, SK hynix Inc., Korea **Advanced Package Technology for HBM and Beyond HBM**					
11:40-12:10	KT4 Keynote Talk 4 (Convention Hall A+B) - Choo Hyuck, Samsung Electro-Mechanics Co., Ltd., Korea **Glass Substrate for Next-Generation Semiconductor Packaging**					
12:10-13:10	**Lunch (60 min)**					
Session Chair	Choi Changhwan, Kim Young-Cheon, Kim Youngwoo, So Hongyun					
13:10-14:00	**Poster Presentation (Happy Hall Lobby, Main Building 1F) (50 min)**					
Session Chair	Song Jae Yong					
14:00-14:30	KT5 Keynote Talk 5 (Convention Hall A+B) - Lee Chee Ping, Lam Research Corporation, Singapore **Enabling AI's Next Leap: Advanced Packaging Powered by Equipment Innovation**					
14:30-15:00	KT6 Keynote Talk 6 (Convention Hall A+B) - Subramanian S. Iyer, UCLA (University of California, Los Angeles), USA **Strategic Directions in Advanced Packaging**					
15:00-15:20	Break Time (20 min)					

Topic	Q. Glass Core Substrate Interposers	R. Advanced Packaging Materials	S. Co-Packaged Optics	T. MEMS/Display/Wearable	Special Session 9 *(Closed)*	Special Session 10 *(Closed)*
Session Chair	Park Se-Hoon	Lee Kwangjoo	Choi Kwang-Seong	Kim Tae-il	Yoo Sehoon	Kwon Daeil
15:20-15:45	I2-05 (Invited) Yi Yongsang, LPKF Laser & Electronics Korea Ltd., Korea **Development of Glass Substrates and Trend Change Using LIDE**	I2-08 15:20-15:45 (Invited) Choi MiKyoung, Amkor Technology, Korea **Accelerating Time to Market through System to Material Co-Design in Advanced Packaging**	I2-10 (Invited) Lars Brusberg, Corning Science & Technology, Germany **Glass-Based Optical Interconnects for Co-Packaged Optics: Innovations in Coupling, Substrates, and Routing Solutions**	I2-11 (Invited) Lee Jongho, Gwangju Institute of Science and Technology (GIST), Korea **Stretchable Inorganic LED Displays: Design and Fabrication**	차세대 AI 반도체 초박형 기판용 TGV 핵심기술 기반구축 (소부장기술융합연구조합)	물리기반 인공지능과 열-기계 연계 물성을 활용한 차세대 반도체 패키지 신뢰성 진단 및 방열 성능 최적화 (성균관대학교 외)
15:45-16:05	O2-17 Valeria Samsoninkova, Rena Technologies GmbH, Germany **Tuning of through Glass via (TGV) Shapes in Different Glass Types for Glass-Core Packaging Substrates**	O2-20 Jang Jongmin, LG Chem, Korea **Film Adhesive Solutions for Thin & High Stack Memory**	O2-23 Nam Donguk, Korea Advanced Institute of Science and Technology (KAIST), Korea **Integrated Light Source Technologies for Photonic-Integrated Circuits**	O2-27 Bae Byeong-Soo, Korea Advanced Institute of Science and Technology (KAIST), Korea **Zero CTE Advanced Semiconductor Packaging Substrate/Foldable High-Frequency PCB Substrate with Low Dk/Df Siloxane Elastomer**		
16:05-16:25	O2-18 Kim Sung-Bin, AnyCasting Co., Ltd., Korea **Analysis of Microstructure for Achieving Zero Void in Cu Metallization of Through Glass Vias in Glass Core Substrate**	I2-09 16:05-16:30 (Invited) Seok Seong-Ho, Corning Technology Center Korea, Korea **Corning TGV (Through Glass Via) Substrate: Innovative Solutions for Advanced Packaging**	O2-24 Choi Samuel Seongwook, LIPAC Co., Ltd., Korea **FOWLP as a Versatile Packaging Platform for CPO/NPO Engines in Future Data Centers**	O2-28 Jung Yei Hwan, Hanyang University, Korea **Assembly and Integration of Micro-LED Display**		
16:25-16:45	I2-06 16:25-16:50 (Invited) Jeon Eunsuk, Laserapps Co., Ltd., Korea **Micro-Crack Free Laser Singulation and Melting TGV for Glass Substrate and Interposer**	O2-21 16:30-16:50 Tetsu Yonezawa, Hokkaido University, Japan **Enhanced Low-Temperature Sinter Bonding by Hybridization of Self-Reducible CuxO and Metallic Cu Nanoparticles**	O2-25 Kim Seung Gun, Kookmin University, Korea **Optimization and Robust Packaging of 493 nm Inversely Tapered Edge Couplers for Ba+ Ion Trap Quantum Computing Platforms**	O2-29 Cho Byoung-Gu, AGASemicon Corp., Korea **Novel, integrated solution for Micro-LEDs Using PR Expansion (Mass Transfer and Bonding Strategy)**		
16:45-17:05	I2-07 16:50-17:15 (Invited) Jung Il Hyung, BSP Co., Ltd., Korea **TGV (Through glass via) Formation Using a Femtosecond Pulsed Laser**	O2-22 16:50-17:10 Lee Hyun Jin, MK Chem & Tech Co., Ltd., Korea **Surface Treatment Technology for Semiconductor Packaging Substrates**	O2-26 Kim Younghyun, Hanyang University, Korea **Silixon Nitride Photonics on Glass Substrate Platform for Optical RDL in Scale-in Optical Interconnect**	O2-30 Jeong Jae-Woong, Korea Advanced Institute of Science and Technology (KAIST), Korea **Versatile Fine-Pitch Bonding with Low-Melting-Point Alloys for Advanced Electronic Integration**		
17:05-18:30	Banquet Setting	Break Time (85 min)				17:30~18:20 General Meeting (Amante Hall)
18:30-20:30	Banquet (Convention Hall A+B, 2F)					

November 7th, 2025 (Fri)

Room	Convention Hall A (300) 2F	Convention Hall B (300) 2F	Convention Hall C (300) 2F	Joyful Hall (300) 1F	Happy Hall (150) 1F	Ladies Hall (60) 2F	Amante Hall (50) 2F
Topic	U. Reliability	V. Equipment and Tools	W. Metrology and Inspection	X. Young Scientist I	Y. Young Scientist II	Special Session 11 *(Closed)*	Special Session 12 *(Closed)*
Session Chair	Ryu Ill	Lee Yong-Seok	Lee Joohyung	Kim Young-Cheon	Noh Wooram	Sohn Yoonchul	Jung Yei Hwan
9:00-9:25	I3-01 (Invited) Park Ah-Young, University of Seoul, Korea **Analysis of Bonding Strength in Patterned Cu–SiO_2 Hybrid Interfaces**	I3-03 (Invited) Lee Sun-Ghil, Tokyo Electron Korea Ltd., Korea **Unlocking New Frontiers: Wafer-Level 3D Integration Technology for High Performance Computing and AI Applications**	I3-06 (Invited) Isabella Drolz, Comet, Germany **AI Meets X-ray: The New Standard in Non-Destructive Chip-on-Wafer Inspection**	O3-15 9:00-9:15 Yoo Woongkyoo, Hanyang University, Korea **Prediction of the Warpage for Large-scale Semiconductor Package using Equivalent Model Considering the Anisotropic Thermomechanical Properties based on Multi-physics Simulation**	O3-25 9:00-9:15 Kim Sang Hoon, Sungkyunkwan University, Korea **Impact of Plastic Deformation at the Cu-Cu Hybrid Bonding Interface on Signal Integrity in High-Bandwidth Memory Channels**	Training of Semiconductor Advanced Packaging Specialists (Chosun University, Chonnam National University Gwangju Institute of Science and Technology, Inha University)	차세대 3D 패키징을 위한 저온, 저압공정용 이방성 전도성 접착소재 및 공정 개발 (성균관대학교, 한양대학교, STECO)
9:25-9:45	O3-01 Yeon Hanwool, Gwangju Institute of Science and Technology (GIST), Korea **Addressing Thickness-performance Dilemmas in Electromagnetic Interference Shields by Metal-MXene Heterostacking**	O3-06 Jeong Jihoon, Texas A&M University, USA **Self-Focusing Control for Depth-Precise Wafer Slicing of 4H-SiC in Femtosecond Laser Processing**	O3-10 Park Poomseong, SK hynix Inc., Korea **MI (Metrology & Inspection) Challenges in FOWLP Process**	O3-16 9:15-9:30 Gwak Wan-Gyu, Sungkyunkwan University, Korea **Efficient Prediction of Wafer-Radius Ion Energy and Angular Distributions with Machine Learning for Plasma Based Pre-Bonding Processes**	O3-26 9:15-9:30 Jung Hyunwoo, Sungkyunkwan University, Korea **Image-Based Probabilistic Prediction of Effective Thermal Conductivity in Cu–BAs via Cross-Validated FFT-Based Spectral and FEM Homogenization**		
9:45-10:05	O3-02 Lee So-Yeon, Inha University, Korea **Enhancing Metal Interconnect Reliability through Strain Engineering**	O3-07 Han Seunghwoi, Chonnam University, Korea **Direct-Writing of 3D Conductive Patterns within and on Transparent Structures**	O3-11 Kim Hyuntae, Park Systems, Korea **AFM Technology for Semiconductor Metrology and Inspection**	O3-17 9:30-09:45 Lee Siye, Seoul National University of Science and Technology, Korea **Impact of Surface Oxidation on Cu-Cu Bonding in Hybrid Bonding** O3-18 09:45-10:00 Kim Kyungmin, Sungkyunkwan University, Korea **Mechanically Robust and Reworkable Microchip Packaging via Liquid Metal-based Anisotropic Conductive Adhesive**	O3-27 9:30-09:45 Han Dugkyu, Hanyang University, Korea **Electrical and Reliability Characterization of PSPI-Based Redistribution Layers for Advanced Packaging** O3-28 09:45-10:00 Sarfraz Muhammad Salman, Korea Advanced Institute of Science and Technology (KAIST), Korea **Development of Low-Viscosity, High-Thermal-Conductivity Capillary Underfills for Advanced Chip Packaging**		
10:05-10:25	O3-03 Kim Jong-Hyoung, Pukyong National University, Korea **Local Film Stress Evaluation via FIB-µDIC Slitting Method**	I3-04 10:05-10:30 (Invited) Kim Young-Jin, Korea Advanced Institute of Science and Technology (KAIST), Korea **Ultrafast Photonics for Ultra-Precision: New Applications in Non-Destructive Testing (NDT)**	O3-12 Rho Jinsung, Hanbat National University, Korea **Advanced Pulsed Thermography with Deep Learning for Micro-Crack Inspection in EMC Molding of Semiconductor Packages**	O3-19 10:00-10:15 Lim Jaeseung, Korea Institute of Machinery and Materials (KIMM), Korea **Femtosecond pulsed Laser-Induced Forward Transfer for VCSEL Integration** O3-20 10:15-10:30 Jang Jiwoo, Hansung University, Korea **Developing Physical AI for Semiconductor Packaging Machines: Practices in Saw Singulation**	O3-29 10:00-10:15 Gu Chang-Yeon, Korea Advanced Institute of Science and Technology (KAIST), Korea **Prediction of Long-term Warpage in Semiconductor Packages Considering Thermal Aging of Epoxy Molding Compound** O3-30 10:15-10:30 Kim Jaehoon, Korea Advanced Institute of Science and Technology (KAIST), Korea **Isotope-Enriched Cubic Boron Arsenide with Ultrahigh Thermal Conductivity**		

10:25-10:45	Break Time (20 min)	Break Time (15 min)	Break Time (20 min)	Break Time (15 min)		**Special Session 13 (120 min)**	**Special Session 14** ***(Closed)***
Session Chair	Ryu Ill	Lee Yong-Seok	Lee Joohyung	Kim Young-Cheon	Kim Seongju	Session Chair	Kim Hyeok
10:45-11:10	I3-02 (Invited) Kim Wonbin, Samsung Electronics Co., Ltd., Korea **Accelerated Reliability Evaluation and Conduction Mechanisms of Solder Resist in Fine-Pitch Substrates**	I3-05 (Invited) Vikram Turkani, PulseForge Inc., USA **Enabling Scalable Heterogeneous Integration with Photonic Debonding Technology**	I3-07 (Invited) Lee Bongsub, Adeia Inc., USA **Hybrid Bonding Metrology: Pre- and Post-Bond Analysis for High Yield and Throughput**	O3-21 10:45-11:00 Hwang Jae Young, Seoul National University, Korea **TDTR-Based Thermal Transport Measurement and Modeling of Cu-Cu Bonding with Metal Passivation**	O3-31 10:45-11:00 Kim Jahyeon, Korea Institute of Industrial Technology (KITECH), Korea **Research on Co-Soldering Optimization for Next-Generation Electronic Packaging: SAC305/Sn-Bi**		잉크젯 프린팅 공정을 이용한 저가형 패널 레벨 첨단 패키징 유기 RDL 인터포저 기술 개발 (서울시립대학교 외)
11:10-11:30	O3-04 Kim Jun-Yeop, Nexensor Inc., Korea **The Study of Warpage and Micro-structure Measurement in HBM Process**	O3-08 Jeong Hakung, Korea Institute of Machinery and Materials (KIMM), Korea **Equipment Technologies for High-Reliability Bonding and Interconnect Processes in Advanced Packaging**	O3-13 Kim Ilkwang, Kovis Technology Co., Ltd., Korea **High-Speed C-SAM Inspection for Detecting Micro Defects in HBM Stacking and W2W Bonding Processes**	O3-22 11:00-11:15 Yeon Kyeongmi, Seoul National University, Korea **Dislocation Plasticity in Thin-Films under Inhomogeneous Loading for Semiconductor Packaging Reliability**	O3-32 11:00-11:15 Kim Seonwoo, Korea Electronics Technology Institute (KETI), Korea **Novel Fine Patterning Technology for Bridge Embedded RDL Interposer**		
11:30-11:50	O3-05 Lim Hyukjun, Seoul National University, Korea **Real-Time Prediction of TSV Thermal Fatigue Reliability in HBM Using FEA-Guided U-Net-Based Deep Learning Framework**	O3-09 Jeong Hyeong-Jun, Samsung Electronics Co., Ltd., Korea **A Study on the Improving Accuracy of Optical 3-D Profile Measurement using In-Wafer Gradient of Dimensionally Reduced Ellipsometry Spectrum**	O3-14 Jang Jaeyoung, Nexensor Inc., Korea **Fast and Precise CMP Metrology via Phase-Shifting Interferometry and Active-Probe Atomic Force Microscopy**	O3-23 11:15-11:30 Shin Seungik, Korea Institute of Machinery and Materials (KIMM), Korea **Fatigue Life of Single Thermoelectric Solder Joints under Peltier-Induced Thermal Cycling**	O3-33 11:15-11:30 Lee Jeongheon, Chosun University, Korea **A Review of the Electromigration Reliability for SnBi based Solder Joints**		
				O3-24 11:30-11:45 Min Kyoungyeon, Hanyang University, Korea **Hybrid Bonding at Low Temperature Enabled by Plasma-Activated Polymer–Inorganic Dielectric Interfaces**	O3-34 11:30-11:45 Kwon Guhyeon, Seoul National University, Korea **Moisture-Dependent Leakage Current Behavior of Photo-Imageable Dielectric (PID)-based Redistribution Layers (RDLs)**		
12:00-12:30	**ISMP Award Ceremony, Lucky Draw and Closing Remark (Convention Hall B, 2F)**						

ISMP 2025 Poster Presentaion | November 6th, 2025 (Thu) 13:10~14:00 | Happy Hall Lobby, Main Building 1F				
No.	**Reg.**	**Title**	**Name**	**Affiliation**
1. Design and Simulation				
P1-01	ABST-000197	Prevention of crack propagation in 2.5D glass interposers during RDL fabrication	LE XUAN-BACH	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P1-02	ABST-000121	Compact Heat-Dissipation in AoP with Thermal Vias and Perimeter-Wall Heat Spreader	SEO DEOK JIN	KOREA ELECTRONICS TECHNOLOGY INSTITUTE (KETI)
P1-03	ABST-000108	Design and Optimization of Stripline for High-Speed Signals	PARK KYONGNAM	KOREA ELECTRONICS TECHNOLOGY INSTITUTE (KETI)
P1-04	ABST-000081	Design of an N77 Band Hybrid Filter Combining Thin-Film SAW and Advanced Glass-IPD Technologies	PARK MINSOO	KOREA ELECTRONICS TECHNOLOGY INSTITUTE (KETI)
P1-05	ABST-000230	Effect of Forming Gas Annealing on a Fluorinated Silica Glass and Al2O3 for the Advanced Packaging	USTAD RUHAN	SEJONG UNIVERSITY
P1-06		Design of Passive IC Power Divider for X-band Low Earth Orbit Satellite Communication	KIM DAE-KWON	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P1-07	ABST-000136	A Dummy Bump-embedded Substrate Trace Design for Reduced Crosstalk of DRAM Filp-chip Package	KIM DONGUK	SUNGKYUNKWAN UNIVERSITY
P1-08	ABST-000224	Automated Pattern Generation for Machine Learning based thermal resistance equivalent modeling	CHOI JAEYOUNG	HANYANG UNIVERSITY
P1-09	ABST-000212	Enhancement of Heat Sink Thermal Performance through Surface Roughness Control Using 3D-Printed Mold with FDM Surface Patterns	JUNG MUGYEOM	HANYANG UNIVERSITY
P1-10	ABST-000201	Power Mapping of an NPU by experimental IR Thermography and Multiphysics Simulation	CHAI SUNGMO	POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY (POSTECH)
P1-11	ABST-000171	Heat Transfer Modeling for System-on-Chip using Finite Element Analysis: Experimental Validation and Deep Learning-based Approach for Acceleration	CHEON MIN JUN	HANBAT NATIONAL UNIVERSITY
P1-12	ABST-000164	Optimization of Low-Loss SiN MMI Couplers on Glass Substrates	LEE JIHYUN	HANYANG UNIVERSITY ERICA
P1-13	ABST-000157	Design of a Low-Loss SiN Evanescent Coupler for Co-Packaged Optics	SHIN SEOKYOUNG	HANYANG UNIVERSITY ERICA
P1-14	ABST-000111	Optical Coupling Structure for Co-Packaged Optics: Design and Simulation of SiON-Based Spot-Size Converter	JO KYUNGJIN	HANYANG UNIVERSITY ERICA
P1-15	ABST-000098	Machine Learning-Based Analysis of Mechanical Behavior and Microstructure Characterization	KANG SEONA	GYEONGKUK NATIONAL UNIVERSITY
P1-16	ABST-000075	Design of Low-Loss SiN Stitching Structures for Wafer-Level Optical Interconnects	YOON SEOKHYEON	HANYANG UNIVERSITY
P1-17	ABST-000158	Apodized Grating Design for High-Efficiency and Low-Loss Interlayer Grating Couplers	PARK SEUNGWOO	HANYANG UNIVERSITY ERICA
P1-18	ABST-000138	Palladium Plating Approach for Thermal Stress Reduction and Reliability Enhancement in Hybrid Bonding Interconnects	YOON CHANGMIN	HOSEO UNIVERSITY
P1-19	ABST-000114	Signal Integrity Performance Analysis of Silicon, Glass, and Organic Interposers Over Temperature Range	YI YERO	HONGIK UNIVERSITY
2. Packaging Process				
P2-01	ABST-000191	Machine Learning assisted Wedge Bonding Process Optimization	PARK BYUNG-GEON	KOREA INSTITUTE OF MACHINERY & MATERIALS
P2-02	ABST-000194	Comparison of the Surface Finish Properties and Bondability of ENEPIG and Nickel-less DEG and EPIG	LIM JIHO	MK CHEM & TECH
P2-03	ABST-000092	Fabrication of Glass-Si Hermetic Package Using Au-Sn Eutectic Bonding with TGV Process for 6G Upper Mid-Band Applications	MIN HYOJEONG	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P2-04	ABST-000087	Reliability Verification of Multi-Layer Daisy Chain Test Structures Through Layer-by-Layer Electrical Measurement	CHO YOUNGBEEN	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P2-05	ABST-000079	Enhancing Bonding Stability in Double-Sided Flip-Chip on Glass through Load Limiting and Thermal Spreading	HAN JEONGIN	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P2-06	ABST-000076	Mitigation of Tear-Drop Via Plating Defects in Build-Up Dielectrics Using Top-Side Multi-Step Laser Drilling	SEO MIRAE	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P2-07	ABST-000060	Electroless Plating of Fe-Ni-B Alloy on Glass Substrates	KANG NA-YOUNG	HONGIK UNIVERSITY
P2-08	ABST-000043	Embedded MEMS Cs Vapor Cell Package with Optical Mount Compatibility for Spontaneous Four-Wave Mixing in Quantum Optics	NA YEEUN	NATIONAL NANO FAB CENTER
P2-09	ABST-000232	BEOL-Compatible Magnesium Fluoride Diffusion Barriers for Preventing Copper Migration in Si/SiO2 Structures	KAMBLE TUSHAR	SEJONG UNIVERSITY
P2-10	ABST-000213	Enhancement of Seed Layer Adhesion on Glass Substrates via ALD-Deposited High-k Thin film	KIM SUNBUM	HANYANG UNIVERSITY

P2-11	ABST-000167	Comparative Evaluation of Multi-Reflow Laser and Conventional Soldering for Reliability Improvement in MLCC Assembly	IM TAEYOON	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
P2-12	ABST-000135	Strengthening SiO_2 Bonding Reliability in Hybrid Bonding through Plasma Process and Queue Time Control	KIM INJOO	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-13	ABST-000105	Improved Thermal Management in IC Packages Using Boron Carbide-Reinforced Epoxy Composites	AL SALIM ABDALLAH	SUNGKYUNKWAN UNIVERSITY
P2-14	ABST-000183	Dielectric Bonding Method for 3D Integration Packaging Using Self-Assembled Monolayer	CHOI SUNGJAE	SEOUL NATIONAL UNIVERSITY
P2-15	ABST-000149	FEM Simulation for Warpage Prediction with Process Stage –Dependent Material Properties during FCBGA Packaging Process	LEE SEONDO	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)
P2-16	ABST-000107	Hybrid Bonding Enabled by Nanoimprint Lithography of Polymeric Dielectric Layers	LEE SOHWI	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-17	ABST-000050	Advanced Cu Surface Modification Using Ar-CH4 Plasma Pre-treatment for Direct Bonding Applications	LEE HOOGWAN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-18	ABST-000048	Polymer-Dependent Fly Cutting Process and Its Influence on Cu/Polymer Hybrid Bonding	JANG SUIN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-19	ABST-000038	Low Thermal Budget Integration of High Temperature α-Ga_2O_3 layers onto Silicon Devices via Thermal Compression Bonding	LEE JIYUN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-20	ABST-000036	Evaluation of Metal-Polymer Hybrid Bonding as an Alternative to Conventional Hybrid Bonding Interfaces	SUNG DONG YUN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-21	ABST-000027	Reliability Analysis of Fine-Pitch Interconnections Using Epoxy-Based Laser-Bonding Materials with Different Glass Transition Temperatures.	LEE GA-EUN	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (ETRI)
P2-22	ABST-000221	Selective IPL Soldering with Low Thermal Impact and Enhanced Joint Reliability	PARK YOUNG-JOO	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
P2-23	ABST-000215	Cu/SiO_2 Hybrid Bonding with Cobalt Passivation for 3D Integration	LEE JAEHO	HANYANG UNIVERSITY
P2-24	ABST-000214	Characterization of PEALD SiNx Films for Dielectric-Dielectric Interface Applications	CHOI SEHYEON	HANYANG UNIVERSITY
P2-25	ABST-000184	Strain-Insensitive Interdigitated Capacitive Touch Screen Sensor with Porous Elastomer Substrate	KIM KYEONGTAE	HANYANG UNIVERSITY
P2-26	ABST-000180	Optimizing Thermal Interface Materials in Semiconductor Packages: Development of Alumina Filler	CHUNG YOON CHAN	INHA UNIVERSITY
P2-27	ABST-000156	Fabrication of Multi-Layer Cu RDLs on Glass Substrate	JIN HYEIN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-28	ABST-000147	Reliability Analysis of Laser-Assisted Bonding with Compression (LABC) Using Non-Conductive Film (NCF) Containing Spherical h-BN Filler	KIM SEONG CHEOL	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (ETRI)
P2-29	ABST-000140	Effect of soldering processes on IMC growth and mechanical reliability of SAC305/ENEPIG joints	LEE HYO-WON	CHUNGBUK NATIONAL UNIVERSITY
P2-30	ABST-000094	Fracture Behavior of ENEPIG/Sn–3.0Ag–0.5Cu Solder Joints Using Laser Assisted Bonding (LAB)	LEE TAE-HYEUN	GYEONGKUK NATIONAL UNIVERSITY & KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
P2-31	ABST-000088	Influence of Silver Addition to Indium for Thermal Interface Material Joints with ENIG Coating on the Formation and Growth of Intermetallic Compounds	SIM YUNSUB	CHOSUN UNIVERCITY
P2-32	ABST-000086	Low Temperature Cu/SiO2 Hybrid Bonding Using Area-Selective Metal (Au) Passivation Technology for 3D IC and Advanced Packaging	JUNG HYUNJOON	SUNGKYUNKWAN UNIVERSITY
P2-34	ABST-000078	Development of W2W Hybrid Bonding for Sub-micron Pad	HA SEUNGYUN	NATIONAL NANO FAB CENTER
P2-35	ABST-000069	Transient Liquid Phase Bonding Using a Sn/2 μm Cu/Sn Laminated Solder Preform with Complete Consumption of the Cu Layer and High-Temperature Long-Term Reliability Evaluation	LEE DONG-BOK	CHUNGBUK NATIONAL UNIVERSITY
P2-36	ABST-000062	Improvement of Cu–Cu Bonding Properties using Ag Interlayer	BAEK SONGYEON	CHUNGBUK NATIONAL UNIVERSITY
P2-37	ABST-000057	Effect of Cu pillar micro-bump structures on the interfacial reaction kinetics in chip-to-chip bonded joints: reflow vs intense pulsed light (IPL) bonding	JANG EUNSU	CHUNGBUK NATIONAL UNIVERSITY
P2-38	ABST-000049	Effect of Dishing Depth and Process Parameters on Cu-to-Cu Bonding Recovery: A Simulation-to-Experiment Approach	OH SEUNGHWAN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-39	ABST-000039	Formation and Optimization of Ru2Si3 Thin Films for Reduced Contact Resistance	CHOI SEOYEON	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-40	ABST-000015	Oxidation-Induced Head-in-Pillow Defects and a Rework Method in Sn-3.0Ag-0.5Cu BGA Packages	SHIN TAEK-SOO	SUNGKYUNKWAN UNIVERSITY
P2-41	ABST-000130	Finite Element Simulation of Laser-Induced Deep Etching Process for Through-Glass Via Formation	CHO MINSEO	HONGIK UNIVERSITY
P2-42	ABST-000165	Analysis of Indium Solder Joints in Laser-Assisted Bonding with Compression (LABC) via Reflow-Free Dipping Process	YOON MIRI	HANBAT NATIONAL UNIVERSITY

P2-43	ABST-000162	Evaluation of Co-Co Direct Bonding at Low Temperatures for Hybrid Bonding Applications	KO SOOHYUN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-44	ABST-000132	Polyimide Bonding Characteristics for Cu/Polymer Hybrid Bonding	YU JAEMIN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P2-45	ABST-000061	Adhesion of Electroless-Plated Ni–P Alloy Seed Layers on Glass Substrates	PARK JINYOUNG	HONGIK UNIVERSITY
P2-46	ABST-000051	Geometry-Driven Effects of Cu Dishing and Cu Bonding Interface Integrity	SEO KANGMIN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
3. Substrate and Interposers				
P3-02	ABST-000228	Micro-crack free laser glass cutting and TGV for Advanced Semiconductor Packaging	PARK NAM-SON	TECH UNIVERSITY OF KOREA
P3-03	ABST-000226	Process Optimization of Fine-Pitch Flip-Chip Substrate Patterning for Ni-Less Surface Finish Evaluation at 25 μm Bump Pitch and 15 μm Line/Space	LEE TAE-YOUNG	TECH UNIVERSITY OF KOREA
P3-04	ABST-000175	Enabling Next-Generation Semiconductor Packaging with Glass-Core Substrate Process Innovations	LEE SEUNGYONG	LG INNOTEK
P3-05	ABST-000106	Improved removal of sputtered Ti/Cu seed layers using a combined wet and dry etching process for advanced interposer substrates	NOH JINMI	LG INNOTEK
P3-06	ABST-000071	Low-Dielectric SiO_2/Polyimide Prepreg Composite with Enhanced Interfacial, Thermal, and High-Frequency Properties	LEE DA YEONG	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P3-07	ABST-000046	Fabrication of a 2-Layer RDL Structure with Sub-2μm L/S and 5μm Vias by Advanced Semi-Additive Process	LEE HAESEONG	KOREA ADVANCED NANO FAB CENTER (KANC)
P3-08	ABST-000030	Transmission loss characteristics according to thermal changes in an Au circuit formed on a glass wafer	IM YOUNGMIN	KOREA ELECTRONICS TECHNOLOGY INSTITUTE(KETI)
P3-09	ABST-000077	Silicon Nitride on Glass (SING) integrates compact, low-loss photonic routing with glass substrate scalability, enabling high-density optical redistribution layers for next-generation Co-Packaged Optics in high-performance computing and data-center applications	JIN TAEWON	HANYANG UNIVERSITY ERICA
P3-10	ABST-000234	Effects of Surface Roughness on the Mechanical and Optical Properties of Glass Interposers for 2.5D/3D HBM Packaging	HONG HYEYOUNG	SUNGKYUNKWAN UNIVERSITY
P3-11	ABST-000229	Control of Surface structuring for Through Glass Vias Using Femtosecond Laser Processing	LEE JAEBEOM	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
P3-12	ABST-000146	Fabrication and Characterization of Polymer-based Multi-layer RDL for Interposer Applications	KANG MINJI	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P3-13	ABST-000139	Comparative analysis of thermal stress in TGV structures with various aspect ratios and glass materials	KIM KI-CHEOL	KANGNAM UNIVERSITY
P3-14	ABST-000126	Suppression of debris and residual stress in femtosecond laser processing of silicon wafer under low-temperature conditions	KIM TAESIK	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
P3-15	ABST-000019	Numerical estimation of thermal resistance in package substrates with organic and glass cores	KIM TAEWOO	HANYANG UNIVERSITY
P3-16	ABST-000125	Finite Element Analysis of Porous Through-Glass Via Structures for Thermomechanical Reliability Enhancement in Glass Interposers	JEON JAEWOO	HONGIK UNIVERSITY
4. Devices and Components				
P4-01	ABST-000054	Continuous-Time Linear Equalization Based on Organic Mixed Ionic–Electronic Conductors	LEE YONGWOO	ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST)
P4-02	ABST-000211	The study of Physical and Electrical Degradation of Film Capacitors Through High-Temperature and High-Humidity Conditions	JO EUNBYEOUL	KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE (KATECH)
P4-03	ABST-000033	A Study on the isolation technique for AI automotive radar sensor with AiP	YEON KYUBONG	KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE (KATECH)
P4-04	ABST-000032	A Study on the interference test systems for automotive 4D imaging radar with AoP	YEON KYUBONG	KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE (KATECH)
P4-05	ABST-000031	A Study on the automotive semiconductor package with high reliability using virtual qualification technology	YEON KYUBONG	KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE (KATECH)
P4-06	ABST-000181	Effect of CuO nanosheets addition on microstructure and mechanical properties of SnBiAg solder alloy	AVATARE AJAY	SEJONG UNIVERSITY
P4-07	ABST-000018	Thermal characterization of thermal interface materials under compression	SHIN CHAEEUN	HANYANG UNIVERSITY
P4-08	ABST-000101	Development of Silver EHD Jet Printing Design Rules for Reliable RF Component Fabrication	KIM HYEONGJUN	ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST)
P4-09	ABST-000100	Radio-Frequency Carbon Nanotube Field-Effect Transistors on Glass Substrates	EUM SUNGMIN	ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST)
5. Materials Technology				
P5-01	ABST-000189	Material Optimization of Back Grinding Tape to Prevent Die Chipping	SEO KI-SEUNG	LG CHEM
P5-02	ABST-000104	Pressureless Sinter-Bonding Characteristics of Ag Nanopaste Formulated with Ag Complex Ink	PARK CHANGSU	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

P5-03	ABST-000029	Dielectric properties of low-k FPC substrate materials utilizing AAO	IM YOUNGMIN	KOREA ELECTRONICS TECHNOLOGY INSTITUTE (KETI)
P5-04	ABST-000182	Electrodeposition of Large-Grain Cu(111) Film using Reducing Agent for Electromigration Resistant Applications	KIM SOOJIN	HANYANG UNIVERSITY
P5-05	ABST-000016	Development of High Thermal Conductivity and Low Viscosity Underfill Material Using Shape Memory Polymer Composite Particles	LEE MINGEUN	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY
P5-06	ABST-000010	Measurement of dielectric bonding adhesion energy with machine compliance correction by DCB test	KIM DONG-HYEON	ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST)
P5-07	ABST-000150	High-Performance Polyimide Films Containing Benzocyclobutene Moieties for Advanced Microelectronics Packaging	SAJJAD LARAIB	SEJONG UNIVERSITY
P5-08	ABST-000052	Study on the joint properties of Sn-3.0Ag-0.5Cu solder with nm-thick Al2O3 layer	NOH EUN-CHAE	CHUNGBUK NATIONAL UNIVERSITY
P5-09	ABST-000113	Nanoindentation Creep Behavior of Sn-Bi Based Alloys by Zn Addition	KAWAKAMI NATSUKI	THE UNIVERSITY OF OSAKA
P5-10	ABST-000093	Thermal Property Evaluation of Lotus-type Porous Cu/Solder Composite Joints	HIRASE KANA	THE UNIVERSITY OF OSAKA
P5-11	ABST-000083	In-situ Study on the Stress-Temperature Characteristics of Cu/Photosensitive Polyimide (PSPI) Thin Films for FOWLP	KWON HYUKJIN	GYEONGKUK NATIONAL UNIVERSITY
P5-12	ABST-000082	Effect of N2 Plasma Treatment on the Interfacial Adhesion Energy of Dielectric-Dielectric Bonding for Low-Temperature Hybrid Bonding	EOM YEONGHEUM	GYEONGKUK NATIONAL UNIVERSITY
P5-13	ABST-000080	Post-Bond Annealing Effect on the Quantitative Interfacial Adhesion Energy of SiO2-SiO2 Interfaces for Low-Temperature Hybrid Bonding	JUNG YEONWOO	GYEONGKUK NATIONAL UNIVERSITY
P5-14	ABST-000059	Sputter-Engineered PVD SiCN as a Low-k Dielectric for Hybrid Cu Bonding	CHOI JUNYOUNG	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P5-15	ABST-000216	Enhanced hydrophobicity of MgO as a Thermal Management Filler for Battery	JUN YUEUN	DONGGUK UNIVERSITY
P5-16	ABST-000203	Electroplating of Copper with Conductive Nanomaterials for Enhanced TSV Reliability	PARK JEONGWOO	HANYANG UNIVERSITY
P5-17	ABST-000188	Thickness-dependent Resistivity of Ultrathin Topological Semimetal MoP for Next-generation Interconnect in BEOL	SHIN YEJI	POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY (POSTECH)
P5-18	ABST-000187	Low-overpotential Electrodeposition of submicrometer-scale Cu Single Crystal	JEONG GIHO	POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY (POSTECH)
P5-19	ABST-000179	Developing High-Thermal-Conductivity Epoxy Composites: Hybrid Fillers of Silica Nanowires and Alumina-Coated Core –Shell Nanoparticles	PARK MINAH	INHA UNIVERSITY
P5-21	ABST-000173	Cuticular pad–inspired selective frequency damper for nearly dynamic noise–free bioelectronics	SHIM JAE SEUNG	SUNGKYUNKWAN UNIVERSTIY
P5-22	ABST-000154	Anisotropic, Highly Thermally Conductive hBN–Fe3O4 Fiber/Epoxy Composites via Magnetic Alignment	JEONG YEONWOOK	SUNGKYUNKWAN UNIVERSITY
P5-23	ABST-000145	Electrospun h-BN/PAN Hybrid Carbon Fibers for High-Performance Thermal Interface Materials in Advanced Electronic Packagingckaging	CHOI HO JEONG	SUNGKYUNKWAN UNIVERSITY
P5-24	ABST-000144	Anisotropic Thermal Interface Composites Based on Electric-Field-Aligned $BaTiO_3$ Fibers	OH BO GYEONG	SUNGKYUNKWAN UNIVERSITY
P5-25	ABST-000143	Electroless Au Passivation for Oxidation-Free Cu–Cu Bonding	GO BYEONGCHAN	SEOUL NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
P5-26	ABST-000090	Effect of Air Exposure Time after Two-step Ar/N_2 Plasma Treatment on the Interfacial Characteristics of the Cu-Cu Bonding Interface	LEE SEUNGGYUN	GYEONGKUK NATIONAL UNIVERSITY
P5-27	ABST-000068	Influence of TiC Nanoparticles and Soldering Process on the Microstructure and Mechanical Properties of Sn58Bi/Sn3.0Ag0.5Cu Hybrid Joints	LIM KWAN-SOO	CHUNGBUK NATIONAL UNIVERSITY
P5-28	ABST-000042	Bi-Directional Alignment of BN Micro-Platelets via Micro-Molding for Flexible, High-Performance Thermal Interface Materials	KIM YEJI	SUNGKYUNKWAN UNIVERSITY
P5-29	ABST-000026	PCLD as a Viscosity Modifier for Highly Filled Epoxy Composites	LIM YUMIN	INHA UNIVERSITY
P5-30	ABST-000011	Growth mechanism of (111) copper single crystal growth via heat treatment	LEE CHAN-YOUNG	ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST)
P5-31	ABST-000129	Effect of Cu grain size and reflow Time-Above-Liquidus on interfacial intermetallic compound formation and growth in Sn-3.0Ag-0.5Cu solder joints	JEONG SEON-JU	CHUNGBUK NATIONAL UNIVERSITY
P5-32	ABST-000091	Interfacial Reactions Between ENIG-Finished Cu Substrates and SAC305 Solder Paste Incorporating Gallium Particles	CHOI JUNGHWAN	CHOSUN UNIVERSITY
P5-33	ABST-000089	Interfacial Reactions Between Ga-Particle-Contained Sn–58Bi Solder Paste and ENIG-Finished Substrates	PARK HEESEONG	CHOSUN UNIVERSITY

P5-34		Measurement of thermal conductivity using the thermoreflectance mothod	LEE WONJEONG	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)
6. Equipment Technology				
P6-01	ABST-000202	Gecko-Inspired Multi-Layer Soft Gripper for Reliable Wafer/Package Handling in Advanced Packaging	CHO SANGMIN	HANYANG UNIVERSITY
7. Metrology and Inspections				
P7-01	ABST-000208	Nondestructive Evaluation of Automotive Semiconductor Packages Using 3D X-ray Computed Tomography	JO EUNBYEOUL	KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE (KATECH)
P7-02	ABST-000178	Fabrication and Characterization of Standardized 8-inch TEG Wafer Kits for Flip-Chip Assembly and Underfill Testing	KIM HYEONSEOL	NATIONAL NANO FAB CENTER (NNFC)
P7-03	ABST-000163	Direct Resistance Measurement of Single Through Glass Via Using Kelvin Probe Method	LEE JUYEON	KOREA ELECTRONICS TECHNOLOGY INSTITUTE (KETI)
P7-04	ABST-000074	Measurement of the total overlay error of a 200 mm wafer-to-wafer hybrid bonding	KIM SEORIN	KOREA ADVANCED NANO FAB CENTER (KANC)
P7-05	ABST-000020	Role of fluorine atoms in micro-electric device: a study of atom probe tomography	CHOI KYEONG-KEUN	POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY (POSTECH)
P7-06	ABST-000124	Feasibility Study of U-Net Based Wafer Map Classification Enhanced by Morphological Techniques	LEE HYO GI	HOSEO UNIVERSITY
8. Reliability Engineering				
P8-01	ABST-000159	Effect of Chip Layout on Warpage-Induced Delamination in Copper/FR4 Substrates under Mechanical Loading	JU MIN SANG	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)
P8-02	ABST-000195	Drop impact reliability of SAC Solder: Insights from high strain-rate and elevated-temperature behavior	YOO DONG HOON	HANYANG UNIVERSITY
P8-03	ABST-000193	Thermal Fatigue Characterization of SAC305 Solder Joints via a DNP-Oriented Modified Test Vehicle	PARK HYEONGBIN	HANYANG UNIVERSITY
P8-04	ABST-000151	Prediction of Mechanical Properties of metallic film Using a Machine Learning Model Based on FE Simulation of Nanoindentation	HAM JUBEEN	GYEONGKUK NATIONAL UNIVERSITY
P8-05	ABST-000128	Depth-Dependent Nano-Hardness Assessment of Sputtered Cu Thin Films on Flexible Polyimide with Calibration of Contact Area	SEO HEECHANG	GYEONGKUK NATIONAL UNIVERSITY
P8-06	ABST-000122	Electroplating Current Density Effects on Undercut Formation and Reliability of Cu Pillars for 2.5D/3D Packaging	YOON JAEJUN	SUNGKYUNKWAN UNIVERSITY
P8-07	ABST-000120	Compression-Induced Fracture Behavior and Electrochemical Performance of Secondary Particles in Lithium-Ion Battery Cathodes using Semiconductor Processing	SEO SAE-DEOK	GYEONGKUK NATIONAL UNIVERSITY
P8-08	ABST-000119	Prediction of Elastic Modulus via Nanoindentation-Based FEA and ML: Cu Films on Polyimide Substrates	KIM JIHYEON	GYEONGKUK NATIONAL UNIVERSITY
P8-09	ABST-000116	Prediction of Interfacial Adhesion Energy in Hybrid Bonding Structures Using Nanoindentation-Based Finite Element Analysis	NAM SEO-WOO	GYEONGKUK NATIONAL UNIVERSITY
P8-10	ABST-000099	Development and Evaluation of Micro-DIC Patterning Techniques for Micro-Scale Deformation Analysis of Fine-Pitch Semiconductor Packages	NAM HYUNWOO	KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KITECH)
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