Nov. 3, 2021 (Wed.)		
19:00-20:30	**Welcome Reception**	
Nov. 4, 2021 (Thu.)		
	Room Monterosso, B1F *Session Chair: Tae-Ik Lee (Korea Institute of Industrial Technology/ Korea)*	*Room Forum 1, 3F* *Session Chair: Sungwook Mhin (Kyonggi University/ Korea)*
	A1. Automotive Electronics and High Power Package	**B1. Sensor**
08:30-08:55	O1-1 **Synthesis of Crystalline Pure Mesoporous TiO_2B and its Application on Environmental Pollutants Degradation** Dr. Md Kamal Hossain (Bangladesh Council of Scientific and Industrial Research/ Bangladesh)	O1-2 **Manganese and Nitrogen Doped Graphene Oxide-Based Hybrid Composite Materials for DMMP Detection** Mr. Sanjeeb Lama, Dr. Sivalingam Ramesh*, Dr. Young-Jun Lee, Mr. Bong-Gyu Bae, Mr. Jae-Hong Kim, Prof. Joo-Hyung Kim (Dongguk University*, Inha University/ Korea)
08:55-09:20	O1-3 **Ultrafast Sinter-Bonding Technique in Air Using Size-Controllable Cu Dendritic Particles** Dr. Eun Byeol Choi, Prof. Jong-Hyun Lee (Seoul National University of Science and Technology/ Korea)	O1-4 **Mesoporous Pd@Au Film Integrated with Blood Plasma Separation Membrane for Surface-Enhanced Raman Scattering (SERS) Biosensor** Dr. Hyun-Jong Kim, Ms. Hana Lim, Dr. Young Min Park, Dr. Ho-Nyun Lee (KITECH/ Korea)
09:20-09:45	(Invited) I1-1 **Sintered Silver as Die Attach Materials** Dr. Siow Kim Shyong (Universiti Kebangsaan Malaysia/ Malaysia)	(Invited) I1-2 **Flexible Pressure Sensor Based on 3D Structure and its Application** Dr. Hanchul Cho (KITECH/ Korea)
09:45-10:10	(Invited) I1-3 **Power Semiconductor Packaging Approaches for Reliable Power Module Systems** Prof. Sang Won Yoon (Hanyang University/ Korea)	(Invited) I1-4 **Ultra-Wide Bandgap Ga2O3-Based Solar-Blind Photodetectors** Prof. Jihyun Kim (Korea University/ Korea)
10:10-10:35	(Invited) I1-5 **Complete EMI Shielding Leadless Package Solution in Automotive** Sir. HyeongIl Jeon (Amkor Technology Korea/ Korea)	(Invited) I1-6 **Soft Ionic Transducers based on Nanomaterials** Prof. Il Kwon Oh (KAIST/ Korea)
10:35-10:55	***Coffee break***	
	Room Monterosso, B1F *Session Chair: Sungdong Kim (Seoul National University of Science and Technology/ Korea)*	
10:55-11:05	**Opening Remark**	
11:05-11:35	Keynote Talk 1 **Warpage after Molding Processes: Can we Really Predict This?** Prof. Bongtae Han (University of Maryland/ USA)	
11:35-12:05	Keynote Talk 2 **Advanced Packaging Technology & Materials trends** Dr. Santosh Kumar (Yole Dévelopement/ France)	
12:05-13:20	***Lunch***	
	Room Monterosso, B1F *Session Chair: Sayoon Kang (The Korean Microelectronics and Packaging Society/ Korea)*	
13:20-13:50	Plenary Talk 1 **Semiconductor Industry Savior: Further Acceleration in Package Innovation** Dr. Yun Tae Lee (Samsung Electro-Mechanics Co., Ltd./ Korea)	
13:50-14:20	Plenary Talk 2 **Next Generation Terabyte/s HBM (High-bandwidth Memory Module) Designs for Advanced Artificial Intelligence (AI) Servers** Prof. Joungho Kim (Korea Advanced Institute of Science and Technology/ Korea)	
14:20-14:40	***Coffee break***	
	Room Forum 2 & Forum 3, 3F *Session Chair: Young-Bae Park (Andong National University/ Korea) & Yong-Ho Ko (Korea Institute of Industrial Technology)*	
14:40-15:20	**Poster Presentation Session**	
	Room Monterosso, B1F *Session Chair: Ho-Young Son (SK hynix Inc./ Korea)*	*Room Forum 1, 3F* *Session Chair: Jeong-Won Yoon (Chungbuk National University/ Korea)*
	A2. Special Session for Honor Retirement of Prof. Kyung W. Paik	**B2. Microelectronics & Packaging Materials 1**
15:20-15:45	S1-1 **Electroceuticals: The Future of Miniaturized Medical Devices** Dr. Kiwon Lee (Ybrain Inc./ Korea)	(Invited) I1-7 **Thermal Management at Nanoscale in Electronics Packaging** Prof. Hyejin Jang (Seoul National University/ Korea)
15:45-16:10	S1-2 **Development of SmartPlate™ Series: Superb Copper Electroplating Solution for Overcoming Process Limitations of Micro-Bump** Dr. Min Hyung Lee (KITECH/ Korea)	(Invited) I1-8 **Transient Packaging Strategies for Biodegradable Electronics** Prof. Seung-Kyun Kang (Seoul National University/ Korea)

Time		
16:10-16:35	**S1-3 Packaging Trend & FOWLP Development** Dr. Kim Hyoung Joon (Qualcomm Technologies, Inc./ Korea)	(Invited) **I1-9 Achieving Crack-Free Metallized Through-Glass Via Substrate for Reliable High Frequency Microelectronic Packages** Dr. Chukwudi Okoro (Corning Incorporated/ USA)
16:35-17:00	**S1-4 Interconnect Challenges in Memory Packaging** Dr. Ho-Young Son (SK hynix Inc./ Korea)	(Invited) **I1-10 Low Dielectric, High Crystalline, Natural Nano Fiber, as Packaging Materials** Dr. Sang Mok Lee (CNNT, Co. Ltd./ Korea)
17:00-17:25	**S1-5 Effects of Magnetic Field on the Dispersion of Conductive Particles in Anchoring Polymer Layer (APL) Anisotropic Conductive Films (ACFs) for Ultra-Fine Pitch Interconnection** Dr. DalJin Yoon (SK hynix Inc./ Korea)	**O1-5 Novel Synthesis of Highly Periodic Mesoporous Organosilicas SMS-1 & SMS-2 and Application for Various Electronic Materials** Dr. Md Kamal Hossain (Bangladesh Council of Scientific and Industrial Research/ Bangladesh)
	Room Monterosso, B1F *Session Chair: Sung-Hoon Choa (Seoul National University of Science and Technology/ Korea)*	
17:25-17:40	***Retirement Ceremony of Professor Kyung W. Paik***	
17:40~	***Dinner (Blue Seagull, 2F)***	***General Meeting (Room Monterosso, B1F)***

Nov. 5, 2021 (Fri.)

Time		
	Room Monterosso, B1F *Session Chair: Gu-Sung Kim (Kangnam University/ Korea)*	***Room Forum 1, 3F*** *Session Chair: Tae-il Kim (Sungkyunkwan University/ Korea)*
	C1. Heterogeneous Integration Roadmap (HIR) Workshop 1	**D1. Flexible/ Wearable Electronics 1**
08:30-08:55	(Invited) **I2-1 HIR Workshop-International: HIR Overview** Dr. William Chen (ASE Technology Holding, Co., Ltd./ USA) Dr. W. R. "Bill" Bottoms (Third Millennium Test Solutions Inc.(3MTS)/ USA)	(Invited) **I2-2 Intelligent Soft Bioelectronics for Advancing Human Healthcare** Prof. W. Hong Yeo (Georgia Tech/ USA)
08:55-09:20	(Invited) **I2-3 HIR Workshop-International: 5G Communication** Sir. Timothy Lee (IEEE/ USA)	(Invited) **I2-4 Soft Electronics for Mobile Health and Human-Centered Robotics** Prof. Nanshu Lu (University of Texas Austin/ USA)
09:20-09:45	(Invited) **I2-5 HIR Workshop-International: Automotive Electronics** Sir. Rich Rice (ASE Technology Holding, Co., Ltd./ USA)	(Invited) **I2-6 Sensors and Medical Devices Based on Textiles and Elastomers** Prof. Hyun-Joong Chung (University of Alberta/ Canada)
09:45-10:10	(Invited) **I2-7 HIR Workshop-International: Co-Design** Prof. Jose E Schutt-Aine (University OF Illinois Urbana-Champaign/ USA)	(Invited) **I2-8 Printing and Water Sintering Techniques for High Performance Transient Electronic Circuits** Prof. Xian Huang (Tianjin University/ China)
10:10-10:30	***Coffee break***	
	Room Monterosso, B1F *Session Chair: Taek-Soo Kim (Korea Advanced Institute of Science and Technology/ Korea)*	***Room Forum 1, 3F*** *Session Chair: Suck Won Hong (Pusan National University/ Korea)*
	C2. Heterogeneous Integration Roadmap (HIR) Workshop 2	**D2. Flexible/ Wearable Electronics 2**
10:30-10:55	(Invited) **I2-9 Substrate Roadmap for Heterogenous Integration** Dr. Kyuoh Lee (Intel Corporation/ USA)	(Invited) **I2-10 Flexible and Printed 3D Organic Circuits and Active-Matrix Sensor Arrays** Prof. Sungjune Jung (POSTECH/ Korea)
10:55-11:20	(Invited) **I2-11 CUBE and ISC Technologies for 2.5D and 3D Heterogeneous Integration** Dr. Max Min (Ex. Samsung Foundry, USA)	(Invited) **I2-12 High-Resolution 3D Printing of Stretchable Interconnections for Wearable Electronics** Prof. Jang-Ung Park (Yonsei University/ Korea)
11:20-11:45	(Invited) **I2-13 Heterogeneous 2.5D Integration Packaging Technology** Sir. PilJe Sung (Amkor Technology Korea/ Korea)	(Invited) **I2-14 Skin-Integrated Wireless Haptic Interface for VR and AR** Porf. Yei-Hwan Jung (Hanyang University/ Korea)
11:45-12:10	(Invited) **I2-15 Highly-integration Packaging Technologies for 5G, HPC & Automotive Applications** Sir. Insoo Kang (NEPES Corporation/ Korea)	**O2-1 Effect of Cyclic Frequency on Bending Fatigue in Copper Film on Flexible Substrate** Mr. Lee Jong-Sung, Dr. Young-Joo Lee*, Prof. Byoung-Joon Kim**, Prof. Young-Chang Joo (Seoul National University, Korea Polytechnic University**/ Korea, University of Pennsylvania*/ USA)
12:10-13:30	***Lunch***	
	Room Monterosso, B1F *Session Chair: Yohan Yoon (Korea Aerospace University/ Korea)*	***Room Forum 1, 3F*** *Session Chair: Yoonchul Sohn (Chosun University/ Korea)*
	C3. Packaging Processing & Equipment	**D3. PCB, Solder and Reliability**
13:30-13:55	(Invited) **I2-16 Emerging Semiconductor Packaging Technologies** Dr. Donghyun Kim (Hana Micron Inc./ Korea)	(Invited) **I2-17 How to Apply Selective Electrochemical 3D Printer to the Additive Process of Thermal Resistant Bonding Materials for High-Power Semiconductors in the PCB Mass Production?** Dr. Sung-Bin Kim (AnyCasting Co., Ltd./ Korea)
13:55-14:20	(Invited) **I2-18 The Future of Memory Package Technology** Dr. Heejin Lee (SK hynix Inc./ Korea)	(Invited) **I2-19 Effects of Co on the Morphology, Shear Strength and Fracture of the Low Temperature SAC305/Sn-58Bi/Cu Composite Solder Joint** Prof. Shuye Zhang (Harbin Institute of Technology/ China)

14:20-14:45	**(Invited) I2-20 Proposal of Micro UF (Underfill) & SBA (Solder ball attach) for Advanced Package** Sir. Jun Sang Park (Protec Co., Ltd./ Korea)	**O2-2 Study of Sn-Bi-In Ternary Solders for Solder from Eutectic Point to 79℃ Ternary Eutectic** Mr. Hoon Choi, Mr. Sung-Ryul Mang, Prof. Hoo-Jeong Lee (Sungkyunkwan University/ Korea)
14:45-15:10	**(Invited) I2-21 Advanced Packaging Interconnect Solutions** Sir. SeongJin Park (ASM Pacific/ Korea)	**O2-3 2-Layer Rt-QFN : a New Coreless Substrate Based on Lead-Frame Technology** Dr. In Seob Bae, Mr. Hong Chan Kim, Mr. Ho Jun Ryu, Mr. Sung Il Kang (HaesungDS/ Korea)
15:10-15:35	**O2-4 Effects of N_2 Plasma Treatment Condition on the Interfacial Adhesion Energy of Polybenzoxazole/Cu layer for Cu RDL Applications of FOWLP** Ms. Gahui Kim, Mr. Doheon Kim, Prof. Young-Bae Park (Andong National University/ Korea)	**O2-5 Investigation on the Mechanical Reliability of TiN / SiO_2 for W Nucleation Processes** Mr. Sun Woo Lee*, Mr. Dong Jun Kim*, Dr. Jinho Jeon, Dr. WonJun Yun, Dr. Tae-Sung Kim, Prof. Taek-Soo Kim* (WONIK IPS CO., Ltd., KAIST*/ Korea)
15:35-15:55	***Coffee break***	
	Room Monterosso, B1F ***Session Chair: Hyunsik Yoon (Seoul National University of Science and Technology/ Korea)***	***Room Forum 1, 3F*** ***Session Chair: Min-Su Kim (Korea Institute of Industrial Technology/ Korea)***
	C4. Microelectronics & Packaging Materials 2	**D4. Interconnection**
15:55-16:20	**O2-6 Face and Phase Engineered TiO_2 and MoS_2 Nanocomposites Toward Efficient Photocatalytic H_2 Evolution and its Potential as a Nydrogen Sensor** Prof. Hyuksu Han (Konkuk University/ Korea)	**O2-7 Bonding with Partially Cured Low Temperature Polyimide** Ms. Pin-Syuan He, Mr. Kai-Cheng Shie, Prof. Chih Chen (National Yang Ming Chiao Tung University/ Taiwan)
16:20-16:45	**O2-8 Investigation of Photovoltaic Devices Monitoring Technologies** Mr. Shuo Ni, Dr. Jihyun Kim, Prof. Joo-Hyung Kim (Inha University/ Korea)	**O2-9 Development of Simultaneous Transfer and Bonding (SITRAB) Process for Micro/Mini LED Arrays using Anisotropic SITRAB Paste (ASP) and Laser-Assisted Bonding (LAB) Technology** Dr. Jiho Joo, Dr. Yong-Sung Eom, Ms. Chanmi Lee, Dr. Gwang-Mun Choi, Mr. Ki-seok Jang, Mr. In-Seok Kye, Dr. Seok Hwan Moon, Dr. Ho-Gyeong Yun, Dr. Kwang-Seong Choi (ETRI/ Korea)
16:45-17:10	**O2-10 Thermal Stress Analysis of Warpage Behavior according to Application of Thermal Insulation Materials** Mr. Kyeong-ho Shin, Mr. Sanglok Park, Ms. HyeonJung Kwon, Mr. Hyoungsub Shim, Prof. Joo-Hyung Kim (Inha University/ Korea)	**O2-11 Analysis of Ar/N_2 Two-step Plasma Activated Cu Surface for Low-Temperature Cu–Cu Direct Bonding Characteristics** Mr. Seonghun Choi, Ms. Gahui Kim, Prof. Sarah Eunkyung Kim*, Prof. Young-Bae Park (Seoul National University of Science and Technology*, Andong National University/ Korea)
17:10-17:35	**O2-12 Robust and Flexible Bonding of Carbon Nanotube Adhesion Layer between Polymer Substrates via Microwave Irradiation** Ms. Minjeong Sohn, Dr. Min-Su Kim, Prof. Byeong-Kwon Ju*, Dr. Tae-Ik Lee (Korea University*, KITECH/ Korea)	**O2-13 High Speed and Low-Pressure Sinter-Bonding Properties of Surface-Treated Bimodal Cu Particles for Die-Attachment** Mr. Doyeop Namgoong, Prof. Jonh-Hyun Lee (Seoul National University of Science and Technology/ Korea)
17:35-18:00	**O2-14 Using MooN IEC 61508 Functional Safety Architecture in Throughput Logic Critical Designs: a Case of Study** Ms. Bruna Fernandes Flesch, Dr. Rodrigo Marques de Figueiredo, Dr. Lúcio Rene Prade (UNISINOS/ Brazil)	**O2-15 Optimization of Cu Interconnects - SiCN Interfacial Adhesion by Surface Treatments** Mr. Dong Jun Kim*, Dr. Sumin Kang*, Mr. Sun Woo Lee*, Dr. Inhwa Lee, Dr. Seungju Park, Dr. Jun Soo Lee, Dr. Jihyun Lee, Dr. Joong Jung Kim, Prof. Taek-Soo Kim (Samsung Electronics, KAIST*/ Korea)
18:00-18:20	**Award Ceremony, Lucky Draw and Closing Remark (Room Monterosso, B1F)**	

※ ***General Meeting*** : Nov.4, 2021 (Thur.) PM5:40, Room Monterosso (B1F)

Poster Presenttion: Nov. 4, 2021 (Thu.) 2:40~3:20 P.M.

Room Forum 2, 3F

Session Chair: Young-Bae Park (Andong National University/ Korea)

No	Topic	Author	Affilliation	Country	Paper Title
P1-01	Microelectronics & Packaging Materials	MiKyeong Choi*,**, DongSu Ryu*, DongJoo Park*, JinYoung Khim*, SeungBoo Jung†**	Amkor technology korea*, Sungkyunkwan University**	kr	Advanced Thermal Interfacial Material with High Thermal Conductivity for Thermal Packaging Challenges
P1-02		Yongchan Kwon, Jung Won Kim, Tae Hoon Kim, Seong Won Seo, Jung-Rae Park, Cheong-Ha Jung, Gu-Sung Kim†	Kangnam University	kr	A Study on the Major Characteristic Factors of Oxide Dielectric
P1-03		Seong-Gyu Ko, Nakyung Oh, Chan-Ho Jeon, Sang-Gyu Choi, Hyeon-Woo Son, Sang-Wook Kim, Soong-Keun Hyun†	Inha University	kr	Characterization of Joining Properties of Ni-coated Cu/MnSi Joint Brazed by Ag-Cu-Zn-Sn Filler Metal
P1-04		Eun Ha, Haksan Jeong, Seungboo Jung†	Sungkyunkwan University	kr	Effect of EMI Shielding Fillers in EMC on RF Characterization in Range of 18GHz for Fan-out Package Structure
P1-05		Alexsandro Bobsin, Tayná Copes Rodrigues, Paola Lamberty, Iara Fernandes, Sandro Binsfeld Ferreira, Celso Peter, William Dutra, Willyan Hasenkamp†*, Carlos Alberto Mendes Moraes	Universidade do Vale do Rio dos Sinos (UNISINOS), HT Micron*	br	Conductive Films Produced by Ag and Core-shell (cu@Ag) Inks for Electromagnetic Shielding in Accordance with ASTM D4935
P1-06		Iara J. Fernandes, Tayná Copes Rodrigues, Paola Lamberty, Alexsandro Bobsin*, Celso Peter, Willyan Hasenkamp**, Carlos Alberto Mendes Moraes*	Universidade do Vale do Rio dos Sinos (UNISINOS), Universidade do Vale do Rio do Sinos*, Hana Micron Co., Ltd.**	br	Application of Silver Nanoparticle Inks for the Production of Films in Conformal Shielding on SiP
P1-07		Jun-Ho Jang, Haksan Jeong, Dong-Gil Kang, Kyung Deuk Min, Ji-Won Baek, Seong-Boo Jung†	Sungkyunkwan University	kr	Drop Properties of Wafer Level Package Modules with Various Underfill Materials
P1-08		DongGil Kang, HakSan Jung, KyungDeuk Min, JunHo Jang, Eun Ha, JiWon Baek*, SeungBoo Jung†	Sungkyunkwan University, Wonchemical*	kr	Evaluation of Bending Characteristics of WLP Module with Three Types of Underfill
P1-09		Jiyong Yim, Rino Choi†, Daewoong Kwon	Inha University	kr	$HfZrO_2$ Based Ferroelectric-gated IGZO Thin Film Transistor Memory
P1-10		Jeong-han Kim, Rino Choi†, Daewoong Kwon	Inha University	kr	$HfZrO_2$ Ferroelectric Tunneling Junction with IGZO Insertion for Unidirectional Self-rectifying Characteristics
P1-11		Jinshu Li, Qi Zhang†, Euy Heon Hwang	Sungkyunkwan University	kr	Hot Electron Relaxation in MoS_2 and WSe_2 Field-effect Transistors
P1-12		Hyunseong Shin†, Haolin Wang	Inha University	kr	Multiscale Model to Predict Fatigue Crack Propagation Behavior of Epoxy Nanocomposites
P1-13		Hyo Eun Kim, Jun Seong Ji, Ye Ji Kim, Han Gyoel Jeon, Eun Sol Jo, Gu Sung Kim†	Kangnam University	kr	A Study on the Electrical Characteristic by Interposer Materials
P1-14		Harshada Patil, Honggyun Kim, Shania Rehman, Kalyani D. Kadam, Jamal Aziz, Muhammad Farooq Khan, Deok-kee Kim†	Sejong University	in	Inorganic Protection Layer for Stable Resistive Switching of Organic Bulk Heterojunction
P1-15	Packaging Processing & Equipment	Deokjin Seo, Ryu Jongin†	Korea Electronics Technology Institute	kr	Implementation of Magneto-Electric Dipole Antenna with Dual Polarization Using LTCC Process
P1-16		Jong-Min Yook†, Hyun Je Chang, Jiyeon Park, Dongsu Kim	Korea Electronics Technology Institute	kr	Through-hole Silicon Capacitor for 3D-IC Package
P1-17		Jae Woo Song, Sun Kook Kim, Se Hoon Park†	Korea Electronics Technology Institute	kr	Driver Amplifier Module with Face Up Fan-out Packaging Structure Using Thermosetting Low Loss Material Applicable to mmWave
P1-18		Dong Hyeok Bae, Se-Hoon Park†	Korea Electronics Technology Institute	kr	Plasma Treatment for Fan-Out Packaging Low Loss Dielectric Layer
P1-19		HyeokJin Chu, Sungdong Kim†	Seoul National University of Science and Technology	kr	Implementation of Multi-RDL Layers Using Polymeric ILD for FOWLP
P1-20		Jein Yu†, Dongsu Kim, Jong-Min Yook	Korea Electronics Technology Institute	kr	Substrate-embedded Ferrite Core Inductorusing Photosensitive Glass Substrate for Integrated Voltage Regulators
P1-21		Ju Seung Lee, Tae-il Kim†	Sungkyunkwan University	kr	Nanoscale Dewetting Based Direct Interconnnection System for Assembly of Microscale Electronics
P1-22		Mingyu Kim, Rino Choi†	Inha university	kr	High Precision Hybrid Bonding Alignment System with Visible Laser
P1-23	Flexible, Wearable, & Printed Electronics	Xuan Luc Le, Duc Thinh Vuong, Sung-Hoon Choa†	Seoul National University of Science and Technology	kr	Improvement of Reliability and Flexibility for Flexible Solar Cell with Filled Structure and Optical Adhesive
P1-24		Hyun Jin Nam, Se-Hoon Park†	Korea Electronics Technology Institute	kr	Development and Characteristics of Multipurpose Transparent Polyurethane Film
P1-25		Hyun Jin Nam, Wal young Kim*, Na Young Seo*, Su-Yong Nam*, Se-Hoon Park†	Korea Electronics Technology Institute, Pukyong National University*	kr	Development of Stretchable Electrodes for Wearables Using Vacuum Thermal Pressure
P1-26		Chanho Jeong, Tae-il Kim†	Sungkyunkwan University	kr	Spatial Independent Zone for Dynamic Noise Unaffected 2D Sensors
P1-27		Jehoon Lee, Jongkyu Won, Jungwon Kang†	Dankook University	kr	Characteristics of The Colorless Polyimide-Based Flexible X-ray Detector with Non-Fullerene Polymer
P1-28		Young Jin Jo, Tae-il Kim†	Sungkyunkwan University	kr	Organic Transistors Based on Biocompatible and Biodegradable Solid-state Electrolyte
P1-29		Jiyoon Youm, Seung-Hwan Lee, Inhee Cho, Da-Woon Jeong, Hyung-Ho Park*, Min-Su Kim†	Korea Institute of Industrial Technology, Yonsei University*	kr	Optimization of Carbon Solution for Fabrication of Conductive Cellulose Nanofiber Column of Electrokinetic Power Generator
P1-30		Kalyani D. Kadam, Honggyun Kim, Shania Rehman, Harshada Patil, Jamal Aziz, Tukaram D. Dongale, Muhammad Farooq Khan, Deok-kee Kim†	Sejong University	in	Modification in Electron Transport Layer for Efficient Flexible Organic Solar Cells
P1-31		Seung-hyun Oh, Sol-Kyu Lee, Young-Woon Cho, Seung-Kyun Kang†, Sang-Bum Kim†, Young-Chang Joo†	Seoul National University	kr	Nanofiber Channel Organic Electrochemical Transistors for Low-Power Neuromorphic Computing and Wide-Bandwidth Sensing Platforms

P1-32		Gyeongyeong Cheon, Jahyeon Kim, Byeongjin Ahn, Min-Su Kim, Junghwan Bang, Young-Bae Park, Yong-Ho Ko†	Korea Institute of Industrial Technology	kr	Bonding Properties of a Low-temperature Solder on Polymer-based Substrates by Laser Bonding Processes
P1-33		Byungwoo Kim, Yoonchul Sohn†	Chosun University	kr	A Study on the Reaction between Liquid Ga and Pd Substrate for the Application of Flexible Electronic Devices
P1-34		Hyeokgi Choi, Yoonchul Sohn†	Chosun University	kr	A Study on the Reaction between Liquid Ga and Au Substrate for the Application of Flexible Electronic Devices
P1-35	Sensors, LED, & MEMS/NEMS Packaging Technology	In-Seok Kye, Yong-Sung Eom†, Jiho Joo, Gwang-Mun Choi, Ki-Seok Jang, Chanmi Lee, Yong-Jun Oh, Kwang-Seong Choi	Electronics and Telecommunications Research Institute	kr	Microstructure Analysis of Mini LED Bonding Joint Transferred and Bonded Using the Simultaneous Transfer and Bonding (SITRAB) Process
P1-36		Injoo Kim, Sungdong Kim†	Seoul University of Science and Technology	kr	Development of a Vacuum Device for Micro LED Transfer
P1-38		Ko DeaHyeon, Kim Minju, So Younghee, Sungwook Mhin†	Kyonggi University	kr	One Step Solid State Reaction of (Ni,Co,Mn)O_4 Pellet as Negative Temperature Coefficient Sensor
P1-39		Myounghun Kim, Kwang-Seok Kim†	Korea Institute of Industrial Technology	kr	Fabrication of Cu-Graphite Composite Sheets for Electromagnetic Wave Shielding and Heat Dissipation Using Direct Coating and Atmospheric-Pressure Plasma Annealing
P1-40		Doa Kim, Doo in Kim, Myung Yung Jeong†	Pusan National University	kr	Hardness Enhancement on Superhydrophobic Surface for Electronic Packaging
P1-41		Bong-Gyu Bae, Hyewon Park, Young-Jun Lee†, Joo-Hyung Kim	Inha University	kr	Performance Comparison of SAW Sensor by Coating Methods for the Detection of Chemical Warfare Agent Simulants
P1-42		Kwanyong Lee, Jehoon Lee, Mr. Daeho Han, Jungwon Kang†	Dankook University	kr	A Study of Improving the Sensitivity of Indirect X-ray Detectors by Adding Hybrid Perovskite Quantum Dots
P1-43		Xuan Luc Le, Duc Thinh Vuong, Sung-Hoon Choa†	Seoul National University of Science and Technology	kr	Lifespan Prediction and Durability of MEMS Vertical Probe Using Various Interconnection Structures
P1-44		Duc Thinh Vuong, Xuan Luc Le, Sung-Hoon Choa†	Seoul National University of Science and Technology	kr	Modelling of Peeling Process of Adhesive Tape for Electromagnetic Interference Shielding
P1-45		YeongJun Park, Kwangsik Oh, Seungmin Park, YoonHo Kim, Sarrah Eun Kyung Kim†	Seoul National University of Science and Technology	kr	Highly Selective Cu Etching in Cu/Ni Layer Structures for Probe Pin Fabrication
P1-46		Jong Uk Kim, Seok Joon Kwon, Tae-il Kim†	Sungkyunkwan University	kr	Broadband Light Absorber with Hierarchical Nanoturf structures for Solar-Thermal Applications
P1-47		Hyeonjung Yang, Semi Jeong, Hyouk Lee†*	Korea University of Technology and Education, Flexscom*	kr	Development of Flexible Semiconductor Products Using Roll Transfer Equipment
P1-48		Ms. Sang-Kwon Kim, Prof. Ji-Wook Yoon†	Jeonbuk National University	kr	Facile Fabrication of Porous CuBr Films by a Solution Oxidation Method at Room Temperature

Room Forum 3, 3F

Session Chair: Yong-Ho Ko (Korea Institute of Industrial Technology)

No	Topic	Author	Affiliation	Country	Paper Title
P2-01	Interconnection	Lee Wan Geun, Jong-Hyun Lee†	Seoul National University of Science and Technology	kr	Formation of Nano-Porous Structured Cu by Selective Corrosion of Brass Alloy and Sinter Bonding for Cu-Cu Direct Bonding
P2-02		Jia-Juen Ong, Kai-Cheng Shie, Chih Chen†	National Yang Ming Chiao Tung University	tw	Microstructure Analysis and Thermal Fatigue Enhancement in Cu-Cu Joints
P2-03		YoonHo Kim, SeungMin Park, Sarrah Eunkyung Kim†	Seoul National University of Science and Technology	kr	Low Teperature Cu-Cu Bonding Using Ag Nanolayer
P2-04		Seungmin Park, YoonHo Kim, YeongJun Park, Sarrah Eunkyung Kim†	Seoul National University of Science and Technology	kr	Characteristics of Ti Nano Passivation for Low Temperature Cu Bonding
P2-05		Hung-Che Liu, Chih Chen†	National Yang Ming Chiao Tung University	tw	Voids Evolution in Cu-Cu Joints
P2-06		Jung Jaewoong, Ryu Jongin†	Korea Electronics Technology Institute	kr	Analysis and Comparison about Dielectric and Plating Conditions
P2-07		Haneul Han, Jinhyun Lee, Bongyoung Yoo†	Hanyang university	kr	A Study on the Electrodeposition of Copper at Low Temperature and its Application
P2-08		Sung Min Jeon, Sang-Yeob Kim, Su-Hun lee, Hyun-Jun Park, , Bae-yun Ah, Mong-hyun Cho, Jeong-Tak Moon†	MK Electron co., Ltd	kr	A Study on Au Coated High-Purity Silver-core Wire with Low Resistivity Bonded Possible in the Atmosphere
P2-09		SukYoun Lee, JeongTak Moon†, MongHyun Cho, GyuMin Sim, HyunJun Park	MK Electron co., Ltd	kr	New Metal Coated Cu Bonding Wire for Semiconductor Packaging
P2-10		Byeongjin Ahn, Jahyeon Kim, Gyeong-Yeong Cheon, Jungsoo Kim, Chang-Woo Lee, Young-Bae Park*, Yong-Ho Ko†	Korea Institute of Industrial Technology, Andong National University*	kr	Joint Reliabilities of Al Wire Bonding on Cu(OSP) and ENIG Surface-finished Substrate under Complexed Stress with Current and Temperature
P2-11		Woobin Kwon, Youn-Hye Kim*, Yohei Kotsugi*, **, Kirak Son***, Soo-Hyun Kim*, Young-Bae Park†	Andong National University, Yeungnam University*, Tanaka precious metals**, Electronics and Telecommunications Research Institute***	kr	Interfacial Adhesion Energy of TiN Diffusion Barriers Prepared by Atomic Layer Deposition for Ru Interconnect
P2-12		Yoon Hwan Moon*, Yong Sung Eom†, Jiho Joo, Gwang Mun Choi, Ki seok Jang, In Seok Kye, Chanmi Lee, Yong Jun Oh*, Kwang Seong Choi	Hanbat National University*, Electronics and Telecommunications Research Institute	kr	Analysis of Bonding Structure of Flexible Devices Using Anisotropic Solder Paste (ASP) and Laser-Assisted Bonding (LAB) Technology
P2-13		Ki-Seok Jang, Yong-Sung Eom†, Gwang-Mun Choi, Kook-Man Kim*, Jeong-Soo Lee*, Jiho Joo, Chan-Mi Lee, Ho-Gyeong Yun, In-Seok Kye, Bong-Sun Yoo*, Kwang-Seong Choi	Electronics and Telecommunications Research Institute, BNF Corporation*	kr	Laser Assisted Bonding Process Using with Anistropic Solder Paste(ASP) for Fine-Pitch Interconnection
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