

| Poster Presentaion   Nov. 10, 2022 (Thu.) 13:10~14:00 P.M. Lobby (3F) |   |  |  |         |
|---|---|--|--|---------|
| ID  | Paper Title   | Author   | Affiliation  | Country |
| <b>1. Packaging Solutions for 5G/6G Applications</b>                  |   |  |  |         |
| P-001   | Low-k Polymer Composite Ink Applied to Transmission Line  | Hyun Jin Nam, Se-hoon Park   | Korea Electronics Technology Institute (KETI)  | kr      |
| P-002   | Loss Analysis of Single Patch Antenna Using MPI in Sub-THz Band   | Jaewoong Jung, Yunsik Park, Jongjin Ryu  | Korea Electronics Technology Institute (KETI)  | kr      |
| P-003   | Study of S-Parameter Characteristics on Substrate Material in Trench Capacitor Structure for IPD  | Seon-Kwon Kim, Hui-Geun Kang, Dong-Wook Kim, Jun-Seong Ji, Jung-Rae Park, Gu-Sung Kim  | Kangnam University   | kr      |
| P-004   | 5G Filtering Power Divider using Substrate Integrated Waveguide Resonator with Multi-slots  | Seunggoo Namt, Sehwan Choi   | Korea Electronics Technology Institute (KETI)  | kr      |
| P-005   | Transmission Lines Using Low-loss Material and Plasma Interface Treatments for Mm-wave  | Jaewoo Song, Se-hoon Park  | Korea Electronics Technology Institute (KETI)  | kr      |
| <b>2. Electronic Materials for Interconnects and Packaging</b>        |   |  |  |         |
| P-006   | Interfacial Adhesion Energy between ALD Ru and Transition Metal Nitrides Diffusion Barrier for Advanced Interconnects   | Daeyoon Jeong, Woobin Kwon, Youn-Hye Kim, Yohei Kotsugi, Gahui Kim, Kirak Son, Soo-Hyun Kim, Young-Bae Park  | Andong National University, Yeungnam University, TANAKA precious metalsm, Electronics and Telecommunications Research Institute (ETRI) | kr      |
| P-007   | Stacked Through-hole Silicon Capacitors for High Density Capacitors   | Su-Geun Kim, Seong-Jun Im, Hyun-Je Chang, Jong-Min Yook  | Korea Electronics Technology Institute (KETI)  | kr      |
| P-008   | Control of Size and Morphology of Dendrite-Shape Cu Particles and Improvement of Pressure-Assisted Sinter-Bondability   | Sang-Hoon Jung, Jong-Hyun Lee  | Seoul National University of Science and Technology  | kr      |
| P-009   | Effects of Surface Treatment with Carboxylic Acids on Sinter Bonding Using Bimodal Cu Particles   | Wan-Geun Lee, Jong-Hyun Lee  | Seoul National University of Science and Technology  | kr      |
| P-010   | Assessment of AF4 Polyene Adhesion on Si and SiO <sub>2</sub> Substrates by Means of Pull-off Energy  | Talant Sinani, Dmytro Solonenko, Goran Miskovic  | Silicon Austria Labs (SAL)   | at      |
| P-011   | Mechanical Reliability Improvement of Cu-Mn Interconnect for Flexible Electronics Through Self-forming Process  | Jaе-Myeong Shin, Seongi Lee, Won-Jun Lee, Young-Chang Joo, Byoung-Joon Kim   | Tech University of Korea, Seoul National University, Sejong University   | kr      |
| <b>3. Emerging Process for Interconnects and Packaging</b>            |   |  |  |         |
| P-012   | Properties of Various Plasma Surface Treatments for Oxide-oxide Bonding in 3D Integration   | Sangmin Lee, Gwangsik Oh, Seungmin Park, Yoonho Kim, Sarah Eunkyung Kim  | Seoul National University of Science and Technology  | kr      |
| P-013   | Cu/Oxide Hybrid Bonding Analysis by Finite Element Modeling   | Gwang-Sik Oh, Cha-Hee Kim, Won-Jun Lee, Jiho Kang, Jung Hwan Park, Young Su Yun, Sarah Eunkyung Kim  | Seoul National University of Science and Technology, Sejong University   | kr      |
| P-014   | In-situ Temperature-dependent Sheet Resistance of Cu Films in Oxygen Ambient for Wafer-Level 3D IC Integrations   | Kyeong-Keun Choi, Sung-Kyu Kim   | Pohang University of Science and Technology (POSTECH)  | kr      |
| P-015   | Microstructures and Mechanical Properties of the Solder Joints of Sn-58Bi-xRu Alloys Reacted with ENIG and ENIEPG Surface Finishes                                    | Ho-Ryul Shim, Yoonchul Sohn  | Chosun University  | kr      |
| P-016   | Comparative Study on the Microstructures and Mechanical Reliability of the Sn-58Bi-xPt Solder Joints Reacted with ENIG and ENIEPG Surface Finishes                    | Jun-Hyuk Bae, Yoonchul Sohn  | Chosun University  | kr      |
| P-018   | Demonstration of Ferrite core Embedded Solenoid Inductor Using LASER Modification Chemical Etching on Glass Substrate   | Insub Han, Jongmin Yook, Jein Yu   | Korea Electronics Technology Institute (KETI)  | kr      |
| P-019   | A Basic Study on Laser Induced Plasma Monitoring for Selective Laser Ablation in Semiconductor Packaging Process  | Geon-Min Kim, Jae-Heon Lee, Sang-Byuk Lee, Seung-Hwan Lee  | Hanyang University   | kr      |
| P-020   | Analysis of Microstructure of Solder Joint Using Anisotropic Solder Paste (ASP) and Laser-Assisted Bonding (LAB) Technology   | Yeon-Hwan Moon, Yong-Sung Eom, Jiho Joo, Gwang-Mun Choi, Ki-Seok Jang, In-Seok Kye, Channi Lee, Jin Hyuk Oh, Yong-Jun Oh, Kwang-Seong Choi   | Electronics and Telecommunications Research Institute (ETRI), Hanbat National University   | kr      |
| <b>4. PCB, Solder, and Assembly Process</b>                           |   |  |  |         |
| P-021   | Design of Liquid Crystal Phase Shifter Using Copper Sheet   | Deokjin Seo, Yunsik Park, Jongjin Ryu  | Korea Electronics Technology Institute (KETI)  | kr      |
| P-022   | Enhancement on Electrochemical Migration Resistivity of Solder Joint by Ni-P Plating  | Kyung Deuk Min, Byeong-Uk Hwang, Seung-Boo Jung  | Sungkyunkwan University  | kr      |
| P-023   | The Cu Electrochemical Polishing of Cu in Acid Solutions  | Jinhyun Lee, Youjung Kim, Sukhbaatar Bayaraa, Yunha Song, Yang Fan, Wang Qing, Bongyoung Yoo   | Hanyang University   | kr      |
| P-024   | Effects of Cu-MWCNTs Composite Materials with Sn-3.0Ag-0.5Cu Solder on Mechanical Properties and Drop Reliability   | Donggil Kang, Taejoon Noh, Jangbaeg Kim, Seung-Boo Jung  | Sungkyunkwan University  | kr      |
| P-025   | A Study of the Residual Stress Measurement on CCL for Package Substrate   | Byoung-Phil Kang, Jong-Yun Lee, Jae-Sung Kim   | Chungbuk National University, Simmtech Co., Ltd.   | kr      |
| P-026   | Study of Electromigration-Induced Failure in Ni/SnAg/Ni Microbumps by 3D X-Ray Laminography   | Shih-Chi Yang, Chi-Hau Wu, Kai-Cheng Shie, Dinh-Phuc Tran, Chih Chen   | National Chiao Tung University, National Yang Ming Chiao Tung University   | tw      |
| P-027   | Study of Sn-Bi-In Ternary Solder Varying from Sn-Bi Eutectic Point to 79°C Ternary Eutectic Point   | Hoon Choi, Hyeon-Dong Lee, Hoo-Jeong Lee   | Sungkyunkwan University  | kr      |
| P-028   | Microstructure and Joint Reliability in ENIG/Sn-3.5Ag/ENIG Sandwich Structure by Ultrasonic-assisted Soldering  | Hyeon Tae Kim, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-029   | Effects of Solder Volume on Interfacial Reaction and Mechanical Property of Sn-3.0Ag-0.5Cu Solder Joints During Multiple Reflows                                      | Eun-Chae Noh, Young-Jin Seo, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-030   | Brittle Fracture Properties of Sn-Ag-Cu Solders on Ni-free Electroless Palladium Immersion Gold (EPIG) Surface Finish for High Frequency Package Substrates           | Tae-Young Lee, So-Yeon Jun, Deok-Gon Han, Tae-Ho Lee, Sehoon Yoo   | Korea Institute of Industrial Technology (KITECH), MK Chem&Tech  | kr      |
| P-031   | Development of High Ion Density and Uniformity Plasma Source for Large-scale Descum Processing  | Dae-Chul Jung, Ho-Won Lee, Chin-Wook Chung   | Hanyang University   | kr      |
| P-032   | Interfacial Reactions and Properties of Pb-free Solder Joints Mixed Sn-Bi-Ag with Sn-Ag-Cu  | Jalhyeon Kim, Gyeongyeong Cheon, Younran Choi, Dongjin Kim, Jungbin Choi, Young-Bae Park, Yong-Ho Ko   | Korea Institute of Industrial Technology (KITECH), Andong National University, University of Science and Technology (UST)              | kr      |
| P-033   | Study of Solder Joint Stability in Elevated Temperature Testing Condition of Sn-Ag-Cu-Ni-Bi Solder Composition on Cu-OSP Pad Finish at BGA PKG                        | J. Y. Son, J. W. Park, S. G. Lee, Y. W. Lee, S. B. Jung  | Mk Electron Co., Ltd., Sungkyunkwan University   | kr      |
| P-034   | A Study on X-shaped Through-Hole Filling Plating Technology for Stacking Package about Application of Pulse Plating and Organic Additives                             | Jeong-kyu Kim, Bo-Mook Jung, Dae-Geun Kim  | YMT Co., Ltd.  | kr      |
| <b>5. Automotive &amp; Power Electronic Packaging</b>                 |   |  |  |         |
| P-035   | A Study of Thermo-compression Bonded Ni-Sn Transient Liquid Phase Sinter-bonded Joints with Ultrasonic Time   | Dong-Hwan Lee, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-036   | Novel and Fast Transient Liquid Phase Bonding Using Cu Metal Foam/Sn-3.0Ag-0.5Cu Composite Solder Preform   | Min-Haeng Heo, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-037   | Comparative Study of Microstructure and Mechanical Properties of Ni-foam/SAC305 Composite Solder Joints   | Young-Jin Seo, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-038   | A Study on the Interfacial Properties and Mechanical Strength of Sintered Joints by Ratio of Bimodal Cu Paste   | Junhyuk Son, Dong-Yurl Yu, Yun-Chan Kim, Shin-Il Kim, Min-Chan Kim, Hyunwoo Shin, Dongjin Byun, JungHwan Bang  | Korea Institute of Industrial Technology (KITECH)  | kr      |
| P-039   | A Study on High Level ASIL of System on Chip Packaging for Automotive Semiconductor   | KyuBong Yeon, DuHo Lee   | Korea Automotive Technolgy Institute (KATECH)  | kr      |
| P-040   | A Study on the Dependability Characteristics of In-Vehicle Network in System on Chip Packaging for Autonomous Vehicle Valet Parking                                   | KyuBong Yeon, DuHo Lee   | Korea Automotive Technolgy Institute (KATECH)  | kr      |
| P-041   | A Study on the PRUL (Prognostics of Remaining Useful Life) Sensor Packaging with Self-diagnostics for Automotive Functional Safety                                    | KyuBong Yeon, DuHo Lee   | Korea Automotive Technolgy Institute (KATECH)  | kr      |
| P-042   | A Study on the ROA (Rear Occupant Alert) Sensor Packaging for Automotive In-Cabin Monitoring  | KyuBong Yeon, DuHo Lee   | Korea Automotive Technolgy Institute (KATECH)  | kr      |
| P-043   | A Study on the SiC Semiconductor Package for Automotive PTC Heater System   | KyuBong Yeon, DuHo Lee   | Korea Automotive Technolgy Institute (KATECH)  | kr      |
| P-044   | A Study on Heat Spreading Phase Change Composite  | Hyeon Woo Son, Se Won Kim, Dong Rip Kim  | Hanyang University   | kr      |
| P-045   | A Buck-Boost Converter for Automotive Application in 208 Pin Quad Flat Package  | Jun-Hwan Jang, Byong-Deok Choi   | Hanyang University   | kr      |
| P-046   | Critical Factors for Determining the Mechanical Properties on the Pressure-less Ag Nanoparticle Sintered Joints in Air  | Seo Ah Kim, Min-Su Kim, Dongjin Kim  | Korea Institute of Industrial Technology (KITECH)  | kr      |
| P-047   | Highly Reliable Micro-Scale Cu Sintered Joint by Oxidation-Reduction Bonding Process under Thermal Cycling  | Min-Su Kim, Dongjin Kim, Myong-Hoon Roh, Hiroshi Nishikawa   | Korea Institute of Industrial Technology (KITECH), Osaka University  | kr      |
| <b>6. Sensors, LED, and Emerging Packaging Technology</b>             |   |  |  |         |
| P-048   | Triangular Beads like Structure of CuO and CuCo <sub>3</sub> O <sub>4</sub> Decorated Nitrogen Doped Graphene Oxide for CWAs Simulant Detection                       | Sanjeeb Lama, Young-Jun Lee, Sivalingam Ramesh, Joo-Hyung Kim  | Inha University, Dongguk University  | kr      |
| P-049   | Design of Fluorescent Multi-Cancer Diagnostic Sensor Based on Microfluidic Devices  | Byung Kwon Lee, Myung Yung Jeong   | Pusan National University  | kr      |
| P-050   | High Performance and Reusable SAW Sensor Coated with POSS-thiourea Based Polymer for DMMP Detection   | Bong-Gyu Bae, Hee-Chan Jang, Young-Jun Lee, Joo-Hyung Kim  | Inha University  | kr      |
| P-051   | A Study on H <sub>2</sub> O Free Low-temperature Metal Oxide Thin Film Process for Passivation Layer Using Atomic Layer Deposition                                    | Yong-Tae Kim, Ho-Jae Ki, Jaeyeong Heo  | Chonnam National University  | kr      |
| P-052   | Effect of the Polyphosphonamide Based Sensing Materials for the Detection of CEES in SAW Sensor   | Hee-Chan Jang, Bong-Gyu Bae, Young-Jun Lee, Joo-Hyung Kim  | Inha University  | kr      |
| P-053   | Characterization of Mini-LED Solder Joints after Multiple Laser Irradiation   | In-Seok Kye, Yong-Sung Eom, Jiho Joo, Gwang-Mun Choi, Ki-Seok Jang, Channi Lee, Jin-Hyuk Oh, Yoon-Hwan Moon, Yong-Jun Oh, Kwang-Seong Choi   | Electronics and Telecommunications Research Institute (ETRI), Hanbat National University   | kr      |
| P-054   | Fabrication of Annulus Shaped Si Photodetector for Photoplethysmography   | Keunhoi Kim, Yeeun Na, Tae Hyun Kim, Sang Hyun Park, Kyoungmin Kim, Hae Cheol Hwang, Minjun Bak, Eui-Je Jo, Nam Soo Park, Gapseop Sim, Byung Il Lee, Chang Hee Han, Soo-Hyun Kwon, Su Hyeon Kim, Jong-Bum You, Il-Suk Kang, Boo Taek Lim, Jongcheol Park | National Nano Fab Center (NNFC)  | kr      |
| P-055   | Study on the Low Glass Transition Temperature and High Flame Retardancy of Detachable Polymer Coatings about Mg(OH) <sub>2</sub> /silica Composite Aerogel            | Kyu-Yeon Lee, Taehee Kim, Haryeong Choi, Hyung-Ho Park   | Yonsei University  | kr      |
| P-056   | NTC Behavior of the Spinel Al <sub>2</sub> Mn <sub>2</sub> Ni <sub>2</sub> Co <sub>3-3.99</sub> O <sub>4</sub> (0 ≤ x ≤ 0.4) for Temperature Sensor                   | Minju Kim, Sihyun Lee, Younghee So, Sungwook Mhin  | Kyonggi University   | kr      |
| P-057   | Effects of Ytria-doping on Silica Aerogels and Enabling Thermal Stability   | Sanghyun Kim, Taehee Kim, Haryeong Choi, Hyung-Ho Park   | Yonsei University  | kr      |
| P-058   | Mass Transfer of Micro-LED Using a MEMS Vacuum Device   | In-Joo Kim, Young Hak Cho, Sungdong Kim  | Seoul National University of Science and Technology  | kr      |
| P-059   | Polyurea Cross-linked Silica Aerogel with Improved Mechanical Strength by Introducing a Precursor Having Multiple Amino Groups  | Wonjun Lee, Kyu-Yeon Lee, Sanghyeon Kim, Taehee Kim, Haryeong Choi, Hong-Sub Lee   | Kangwon National University, Yonsei University, Kyung Hee University   | kr      |
| P-060   | Synthesis Strategy and Improved Physicochemical Properties of Silica-based Aerogels Using Polyimide-based Cross-linking   | Jiseung Kim, Sanghyeon Kim, Kyu-Yeon Lee, Taehee Kim, Haryeong Choi, Hong-Sub Lee  | Kangwon National University, Yonsei University, Kyung Hee University   | kr      |
| <b>7. Flexible, Wearable, and Printed Electronics</b>                 |   |  |  |         |
| P-061   | A Flexible Coupled-Line Coupler With an Integrated Radiator Termination   | Yunsik Park, Jongjin Ryu   | Korea Electronics Technology Institute (KETI)  | kr      |
| P-062   | Highly Flexible and Efficient Solar Cell Module Designed Based on Numerical Analysis  | Yuhwan Hwangbo, Xuan Luc Le, Xuan Bach Le, SungHoon Choa   | Seoul National University of Science and Technology  | kr      |
| P-063   | High Stretchable, Highly Sensitive Strain Sensor Fabricated with Ecoflex-MWCNTs Composite Paste and Ecoflex Substrate   | Yuhwan Hwangbo, HyunJin Nam, SungHoon Choa   | Seoul National University of Science and Technology, Korea Electronics Technology Institute (KETI)                                     | kr      |
| P-064   | Effects of Bath Composition and Current Density on Fe-Ni Invar Electrodeposition Behavior   | Na-Young Kang, Jae-Ho Lee  | Hongik University  | kr      |
| P-065   | A Study on the Pressure Sensor Mounted onto the 3D Printed Prosthetic Socket for Motion Monitoring  | Jun-Hee Park, Hyoung-Sub Shim, Sun-Kon Lee, Joo-Hyung Kim  | Inha University  | kr      |
| P-066   | Implantable Flexible Microelectronic Neural Interface Implemented by Mechanically Compliant Biomaterials for Brain Monitoring   | Jeonghwa Jeong, Gyeonghwa Heo, Seon Yeong Chae, Suck Won Hong  | Pusan National University  | kr      |
| P-067   | Improvement of Opto-electronic Properties of Transparent Conductive Oxide Multilayers deposited by ALD and Sputtering Technique                                       | Sujeong Kim, Jaeyeong HEO  | Chonnam National University  | kr      |
| P-068   | Optimization of Highly Stretchable Electrode Designs for 2D Array Substrate Based on Finite Element Analysis  | Ah-Young Park, Sumin Kang, Hakyung Jeong, Jun-Yeob Song, Jae Hak Lee, Seungman Kim, Seongheum Han  | Korea Institute of Machinery and Materials (KIMM)  | kr      |
| P-069   | Reliability Evaluation of Conductive Fiber for Wearable Electronics   | Seung Hyeok Lee, Juwon Jun, Mi Jung Lee, Youn Hee Kim, Byoung-Joon Kim   | Tech University of Korea   | kr      |
| P-070   | Effect of Flexible Substrate on Elastic Modulus Measurement of Metallic Thin-film During Nanoindentation  | Hyejin Son, Jong-Hyup Lee, Soo-Hyun Kim, Byoung-Joon Kim, Young-Cheon Kim  | Andong National University   | kr      |
| P-071   | Mechanical Characterization of Laser Transmission Welding for Polymer Substrates  | Myeong-Jun Ko, MinJeong Sohn, Dong-Yurl Yu, Jeeho Na, BeomSeok Kang, Young-Bae Park, Tae-Ik Lee  | Korea Institute of Industrial Technology (KITECH), Andong National University, Korea University  | kr      |
| P-072   | Printable Soft Silicone Packaging for Wearable Devices  | Si Won Park, Min Ku Kim  | Hanyang University   | kr      |
| P-073   | An Investigation of the Homogeneous ZnO P-n Junction Formed by Continuous Atomic Layer Deposition Process   | Dong-eun Kim, Minjae Kim, Akendra Singh Chabungbam, Atul Thakre, Hyung-Ho Park   | Yonsei University  | kr      |
| P-074   | Enhanced Electrochemical Performance of Single-Crystal LiNi <sub>0.8</sub> Co <sub>0.1</sub> Mn <sub>x</sub> O <sub>2</sub> by Atomic Layer Deposition                | Yongseok Lee, Seunghoon Nam  | Andong National University   | kr      |
| P-075   | Pillar Structure on PDMS-based Electrodes for Stretchable Electronics   | Sungsoo Mhin, Kyu-bong Jang, Kyoung Ryeol Park, Sehoon Yoo   | Kyonggi University, 2Korea Institute of Industrial Technology (KITECH)   | kr      |
| P-076   | Fabrication of Flexible and Self-Healing Heaters Comprising Electrosun Polycaprolactone Fibers and Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene/AgNW Electrode | Su Bin Choi, Jagann Singh Meena, Seung-Boo Jung, Jong-Woong Kim  | Jeonbuk National University, Sungkyunkwan University   | kr      |
| P-077   | Mechanical Characteristic of Fast-cured Polydimethylsiloxane at Low Temperature for Highly Stretchable Electronic Device  | Hakyung Jeong, Ah-Young Park, Seung Man Kim, Jun-Yeob Song, Jae Hak Lee  | Korea Institute Machinery and Materials (KIMM)   | kr      |
| P-078   | Low-cost and Highly Sensitive of Flexible Pressure Sensors Based on Graphite Paste Through O <sub>2</sub> Plasma Surface Treatment Process                            | Hyun Jin Nam, Se-hoon Park   | Korea Electronics Technology Institute (KETI)  | kr      |
| P-079   | Reliability of the Flexible Airbag Sensor Module Directly Bonded to Automotive Body with Epoxy Adhesive   | Jeong-Cheol Jang, So-Jeong Lee, Jun-Ki Kim   | Korea Institute of Industrial Technology (KITECH)  | kr      |
| P-080   | Microwave Micro-welding of Silver Nanowires Networks for Transparent Flexible Electrode   | Jong-Min Jeong, Tae-Ik Lee, Seung-Boo Jung, Min-Su Kim   | Korea Institute of Industrial Technology (KITECH), Sungkyunkwan University   | kr      |
| <b>8. MEMS/NEMS Packaging and Applications</b>                        |   |  |  |         |
| P-081   | Development of Selective EMI Shielding Technology of Semiconductor Packages using a Laser   | Xuan-Bach Le, Yuhwan-Hwangbo, Xuan-Luc Le, Sung-Hoon Choa  | Seoul National University of Science and Technology  | kr      |
| P-082   | Development of High-Quality Factor Resonator Using Wafer Level Vacuum Packaging Process   | Keunhoi Kim, Yeeun Na, Gapseop Sim, Heeyeoun Kim, Chung Mo Yang  | National Nano Fab Center (NNFC)  | kr      |
| <b>9. Reliability of Electronic Devices and Systems</b>               |   |  |  |         |
| P-083   | Evaluation of the Reliability of Laser Soldering Using Low Melting Temperature Sn-Bi Solder and Different Surface Finished Cu Pad                                     | Min-Seong Jeong, Jeong-Won Yoon  | Chungbuk National University   | kr      |
| P-084   | Effects of Annealing Condition on the Interfacial Reaction Characteristics of Cu/Sn-1.8Ag/Au/Ni Microbump by Laser-assisted Bonding Process                           | Kyeongsoo Kim, Gahui Kim, Channi Lee, Jiho Joo, Kwang-Seong Choi, Young-Bae Park   | Andong National University, Electronics and Telecommunications Research Institute (ETRI)   | kr      |
| P-085   | Effect of Underfill Filler Content on Thermal Reliability and Moisture Sorption of Underfill Packaged BGA Components  | Jang Baeg Kim, Eun Ha, Kyung-Yeol Kim, Seung-Boo Jung  | Sungkyunkwan University  | kr      |
| P-086   | Effects of Post-annealing Condition on the Bonding Characteristics of Cu/Sn-3.0Ag-0.5Cu/Al Structure for Heat Dissipation Module                                      | Dong Ik Jeong, Doheon Kim, Gahui Kim, Chan Yang Lee, Minchul Oh, Geon-Hong Kim, Young-Bae Park   | Andong National University, Institute for Advanced Engineering (IAE)   | kr      |
| P-087   | Interfacial Bonding Characteristics of Non-cyanide Gold Bump for Display IC Bonding   | Hyejin Kim, Gahui Kim, Jalhyeon Kim, Yong-Ho Ko, Chul-Min Baek, Joo-hyeon Park, Young-Bae Park   | Andong National University, Korea Institute of Industrial Technology (KITECH), LT Metal Co.,Ltd.                                       | kr      |
| P-088   | A Study on the Effect of Operating Temperature on the Thermoelectric Modules  | Yunho Jung, Kyeong-Ho Shin, Young-Jun Lee, Joo-Hyung Kim   | Inha University  | kr      |
| P-089   | Prediction of Reliability of Lead-Free Solder Joint Interface Using Machine Learning Algorithm in Thermal Shock Reliability Test                                      | Sanggyu Choi, Soongkeun Hyun, Joohyung Kim   | Inha University  | kr      |
| P-090   | Warpage Behavior for Various Copper Clad Laminate in Fan-out Panel Level Package  | Taejoon Noh, Sea Hwan Kim, Haksan Jeong, Seung-Boo Jung  | Sungkyunkwan University  | kr      |
| P-091   | The Effect of Underfill Filler Content on the Thermal Reliability of BGA Components Packaged with Underfill   | Eun Ha, Jang Baeg Kim, Kyung-Yeol Kim, Seung-boo Jung  | Sungkyunkwan University  | kr      |
| P-092   | Thermal Stress Distribution in Cu Redistribution Lines Measured by X-ray Nanodiffraction  | Wei-You Hsu, I-Hsin Tseng, Ching-Yu Chiang, K. N. Tu, Chih Chen  | National Yang Ming Chiao Tung University, National Synchrotron Radiation Research Center, City University of Hong Kong                 | tw      |
| P-093   | An Analysis of Factors Affecting on Package of the Structural Robustness Verification Methods Using FEM Simulation  | Min Kyu Kang   | Seoul National University, SK hynix Inc.   | kr      |
| P-094   | Investigation on the Thermo-mechanical Behavior of Semiconductor Package Considering Moisture Effect Through Finite Element Analysis                                  | Hui-Jin Um, Dae-Woong Lee, Mi-Jung Lee, Hak-Sung Kim   | Hanyang University, SK hynix Inc.  | kr      |
| P-095   | Fluorine-doped Titania RRAM Fabricated Using Atomic Layer Deposition  | Minjae Kim, Dong-eun Kim, Akendra Singh Chabungbam, Atul Thakre, Hyung-Ho Park   | Yonsei University  | kr      |
| P-096   | Passivated Oxygen Vacancy in N/F Co-doped ZnO Using H <sub>2</sub> O <sub>2</sub> Oxidant and Improved ZnO Homogenous P-n Junction Performance                        | Hyung-Ho Park, Minjae Kim, Dong-eun Kim, Akendra Singh Chabungbam  | Yonsei University  | kr      |
| P-097   | Detection of Micro-defects Inside Integrated Circuit Packages Training Terahertz Signals Based on Convolutional Neural Network  | Heon-Su Kim, Dong-Woon Park, Hak-Sung Kim  | Hanyang University   | kr      |
| P-098   | Elastic Property Estimation of Attenuative Isotropic Material Using V(z) Technique  | Young Hun Kim, Hyeong Geun Jo, Ki Chang Kang, Do Yeong Joung, Kwan Kyu Park  | Hanyang University   | kr      |
| P-099   | Analysis of HFO <sub>2</sub> ALD Processes for the Surface Passivation of a CMOS Image Sensor Application   | Vijay D. Chavan, Honggyun Kim, Kalyani D. Kadam, Harshada Patil, Jamal Aziz, Tukaram D. Dongale, Muhammad Farooq Khan, Kyeong-Keun Choi, Deok-ke Kim   | Sejong University, Shivaji University, Pohang University of Science and Technology   | kr      |
| P-100   | Measurement of Anisotropic Mechanical Properties with Digital Image Correlation During Spherical Indentation  | Soo-Hyun Kim, Hyejin Song, Jong-Hyup Lee, Young-Cheon Kim  | Andong National University   | kr      |
| P-101   | 3D Surface Profilometry for Microelectronics by Scanning Repetition Rate of Femtosecond Laser   | Jiyong Park  | Korea Institute of Industrial Technology (KITECH), University of Science and Technology (UST)  | kr      |
| <b>10. Design Tools and Modeling</b>                                  |   |  |  |         |
| P-102   | Prediction of Response Field of Viscoelastic Materials Using Time Homogenization Formulation  | Wonjoo Lee, Jae Hun Kim, Suhan Kim, Hyunseong Shin, Yeongkook Kim  | Inha University  | kr      |
| P-103   | Design of a Broadband Coaxial-to-ACP Transition for K-band GSG Probe  | Yunsik Park, Deokjin Seo, Jongjin Ryu  | Korea Electronics Technology Institute (KETI)  | kr      |
| <b>11. 3D Interconnect</b>  |   |  |  |         |
| P-104   | Electroless Ni Alloy Plating as a Diffusion Barrier for Through Silicon Vias in 3D Packaging  | Tae-Yoo Kimt, Kwang-Seok Kim   | Korea Institute of Industrial Technology (KITECH)  | kr      |
| P-105   | The Enhancement of Copper to Copper Direct Bonding Process Using Current-induced Bonding Method   | Byungkwan Kwak, Jungjun Park, Soojin Kim, Jinmyeong Seo, Haneul Han, Inseong Hwang, Bongyoung Yoo  | Hanyang University   | kr      |
| P-106   | Evaluation of Etching Properties According to the Crystallographic Microstructure of Nickel Thin Film   | Yu-Jin Song, Young-Jun Cho, Han-Kyun Shin, Jung Han Kim, Hyo-Jong Lee  | Dong-A University  | kr      |
| P-107   | Analysis of Electrochemical Behavior of Organic Additives during Electroplating of Copper Foil for Secondary Battery  | Young-Seo Kim, Han-Kyun Shin, Hyun Park, Hyo-Jong Lee  | Dong-A University  | kr      |
| P-108   | Pulse Plating to Improve Step Coverage of Co Plating in Mm-size Trench Pattern  | Ki-Young Lee, Seung-Hyeon Lee, Han-Kyun Shin, Jung-Han Kim, Hyo-Jong Lee   | Dong-A University  | kr      |
| <b>12. Hybrid Bonding</b>   |   |  |  |         |
| P-109   | Development of Wafer Align/attach System for Wafer Level Hybrid Bonding   | Hakjun Lee   | Korea Institute of Industrial Technology (KITECH)  | kr      |
| P-110   | Ammonia Plasma Surface Treatment for Reduction Voids in Cu-Cu Bonding   | Ho-Jeong Jeon, Sang Jeen Hong  | Myoungji University  | kr      |
| P-111   | Investigation of Cu-Cu Bonding Interface in Hybrid Bonding  | Hyeok-Jin Chu, Injoo Kim, Siye Lee, Woo Kyung Lee, Sungdong Kim  | Seoul National University of Science and Technology  | kr      |