

ICEP2011 Advanced Program (15, April)

April 7

	Room A	Room B	Room C	Room D
15, April	FA1:Interconnection-2	FB1:Substrate-1	FC1:MFG-5	FD1:Printed-1
8:30	FA1-1 Non	FB1-1 Preparation and characterization of PBS-Al ₂ O ₃ glass-ceramics for LTCC applications C.S.Mahmood ¹ , A.Ibrahim ² , M.H.A1 Rashid Megat Ahmad ¹ , N.U.Saidin ¹ , R.Alias ² , ¹ Malaysia Nuclear Agency, ² Lingkar Teknokrat Timur / Malaysia	FC1-1 Optimization of cyclo-olefin polymer-polydimethylsiloxane direct bonding conditions for biochemical microchips A.Nakahara, H.Shinohara, T.Kasahara, S.Umeda, S.Shoji, J.Mizuno, Waseda University / Japan	FD1-1 RecentProgress in Research Development of Printed TFT Technology (Session Invited) T.Kamata, National Institute of Advanced Industrial Science and Technology / Japan
8:55	FA1-2 C2 assembly on gold plated pads H.Noma, K.Toriyama, K.Matsumoto, E.Ohno, H.Mori, Y.Orii, IBM Japan / Japan	FB1-2 Patterning of Different Materials Inside LTCC Green Sheet Using Photo Resist Film M.Takatou, Nihon University / Japan	FC1-2 Single diallylamine type copolymer additive which perfectly bottom-up fills Cu electrodeposition M.Takeuchi ¹ , K.Kondo ² , H.Kuri ² , M.Bunya ¹ , N.Okamoto ² , T.Saito ² , ¹ Nitto Boseki, ² Osaka Prefecture University / Japan	
9:20	FA1-3 A study of underfill materials for reliability improvement for PKG Y.Muranaka, Sanyu Rec / Japan	FB1-3 The Electroless Ni-P Plating Film Adapting for Flexible Printed Wiring Boards Y.Tanabe, Okuno Chemical Industries / Japan	FC1-3 Die pull tester for flip-chip bonding (9:45) Y.Arai, Toray Engineering / Japan	FD1-2 Ink-jet printed Cu metal pattern cured at room temp. using UV+IR light (Session Invited) J.Novak, AppliedNanotech / U.S.A.
9:45	FA1-4 Chip Package Interaction Study for Large Flip Chip Ball Grid Array with Cu/low-k on-C.Uchibori, Fujitsu Laboratories America / U.S.A.	FB1-4 Surface modification of polyimide by 172 nm excimer lamp irradiation T.Kasahara, H.Shinohara, S.Shoji, J.Mizuno, Waseda University / Japan	FC2:DMR-E-1	
10:10	FA2:Interconnection-3	FB2:Substrate-2	FC2-1	FD2:Printed-2
10:20	FA2-1 Highlight of 2011 INEMI Technology Roadmap M.Tsuriya, C.Richardson, R.C.Pfahl,Jr., H.Fu, International Electronics Manufacturing Initiative / U.S.A.	FB2-1 Development of Thermal Management on LSI Embedding Multi-Layer Printed Wiring Board S.Amakai, Dai Nippon Printing / Japan	FC2-1 Accurate High-Frequency Substrate Modeling and Its Characterization for Multi-Gbps Serial Link I/O J.Kong, J.K.Beh, C.K.Lee, Intel Micronics / Malaysia	FD2-1 High Performance of Inkjet Printhead for Printed Electronics Applications S.Nishi, Konicaminolta IJ Technologies / Japan
10:45	FA2-2 An Experimental and Numerical Investigation into the Optimal Au-Sn Bonding Temperature Conditions for Chip-On-Film Packages D.S.Liu ¹ , S.S.Yeh ¹ , C.Y.Tu ¹ , C.I.Tsai ² , A.H.Liu ² , C.T.Kao ³ , ¹ National Chung Cheng University, ² ChipMos Technologies, ³ Spatial Photonics / Taiwan R.O.C., U.S.A.	FB2-2 Cu-BaTiO ₃ -epoxy Composites with High Permittivity for Embedded Capacitors S.Yu, S.Luo, R.Sun, Chinese Academy of Sciences / China	FC2-2 An In Depth Study of Gen3 High Speed Differential I/O Routing Over Active PTH with Induced Crosstalk C.K.Lee, J.K.Beh, F.Phun, Intel Microelectronics / Malaysia	FD2-2 Ag/Cu Bimetallic Nanoparticle Inks for Wiring and Bonding M.Nakamoto ¹ , T.Nagaoka ¹ , Y.Morisada ¹ , M.Yamamoto ¹ , Y.Kashiwagi ¹ , M.Fukusumi ² , T.Ohno ¹ , H.Kakiuchi ² , Y.Yoshida ² , ¹ Osaka Municipal Technical Research Institute, ² Daiken Chemical / Japan
11:10	FA2-3 Development of Fine-Pitch Flip Chips Assembly on Flexible Printed Circuits Y.Amemiya, Fujikura / Japan	FB2-3 Release Process of the Ferroelectric films and Its Applications F.Tomioka, The University of Tokyo / Japan	FC2-2 Integrated power delivery analysis thorough power rail merging scheme Y.H.See Tau, Intel Microelectronics / Malaysia	FD2-2 Ag/Cu Bimetallic Nanoparticle Inks for Wiring and Bonding M.Nakamoto ¹ , T.Nagaoka ¹ , Y.Morisada ¹ , M.Yamamoto ¹ , Y.Kashiwagi ¹ , M.Fukusumi ² , T.Ohno ¹ , H.Kakiuchi ² , Y.Yoshida ² , ¹ Osaka Municipal Technical Research Institute, ² Daiken Chemical / Japan
11:35	FA2-4 Effects of Intermetallic Compound Thickness on Solder Bump Reliability of High-density 3D Chip-to-chip Interconnect Technology H.C.Cheng ¹ , Y.M.Tsai ² , S.T.Lu ^{2,3} , W.H.Chen ² , ¹ Feng Chia University, ² National Tsing Hua University, ³ ITRI / Taiwan, R.O.C.	FB2-4 Electrical insulator material with ultralow CTE H.Deguchi, Sekisui Chemical / Japan	FC2-4 An Optimization Study on High-Frequency Vertical Interconnect J.Kong, J.K.Beh, J.Wong, Intel Micronics / Malaysia	FD2-3 Development of Transparent Conductive Films by the Use of Metal-oxide Nanoparticle Pastes K.Murahashi ¹ , Y.Takemura ¹ , S.Furuta ² , Y.Kashiwagi ³ , M.Yamamoto ³ , T.Ohno ³ , M.Nakamoto ³ , ¹ Okuno Chemical Industries, ² Tomoe Works, ³ Osaka Municipal Technical Research Institute / Japan
12:00			FC2-5 Analysis of DDR3 Full Channel Performance Impact Caused by Routing Over Package PTH Void J.K.Beh, Intel Micronics / Malaysia	FD2-4 Manufacture of Silver Nanoparticles for Electro-conductive Application R.H.Jin, DIC / Japan
Lunch Time				

15, April	Room A	Room B	Room C	Room D
	FA3:Interconnection-4	FB3:MEMS-4	FC3:DMR-E-2	FD3:Printed-3
13:00	FA3-1 Solder Bumping and Processing of Flip-Chips with a Solder Bump Diameter of 30 μm or 40 μm T.Oppert ¹ , R.Dohle ² , F.Schessler ² , J.Franke ³ , ¹ Pac Tech Packaging Technologies, ² Micro Systems Engineering, ³ University of Erlangen-Nuremberg / Germany	FB3-1 Bonding properties of low-temperature wafer bonding using sub-micron Au particles for MEMS hermetic packaging H.Ishida ¹ , T.Ogashiwa ² , S.Ishizuka ³ , T.Yazaki ¹ , Y.Kanehira ² , T.Nishimori ² , J.Mizuno ³ , ¹ SUSS MicroTec, ² Tanaka Kikinzoku, ³ Waseda University / Japan	FC3-1 Identification of Interconnect Degradation using Nonlinearity Measurement Techniques M.Kruger ¹ , N.F.Nissen ² , H.Reichl ¹ , K.D.Lang ¹ , ¹ Technische Universitat Berlin, ² Fraunhofer Institute for Reliability and Microintegration / Germany	FD3-1 Material Technology of Conductive Wiring by Ink-jet Print M.Inada, Y.Kumashiro, H.Nakako, T.Noudou, K.Kuroda, K.Yamamoto, Hitachi Chemical / Japan
13:25	FA3-2 Flip-chip Interconnection by Nanoparticle Deposited Cone-bumps for Heterogeneous Multi-chip-stacking Cool F.Imura ¹ , S.Nemoto ¹ , F.Kato ¹ , K.Kikuchi ¹ , M.Suzuki ¹ , H.Nakagawa ¹ , M.Aoyagi ¹ , H.Uchida ² , M.Hagimoto ² , M.Chacin ² , T.Miyazaki ² , T.Ohkawa ² , R.Ikemoto ² , Y.Matsumoto ² , ¹ National Institute of Advanced Industrial Science and Technology, ² TOPS Systems / Japan	FB3-2 Hybrid MEMS manufacturing using microelectronics packaging technologies G.P.Li, M.Bachman, University of California / U.S.A.	FC3-2 Fault Analysis of Soft Open Defects in TSVs with Electromagnetic Simulator M.Hashizume, The University of Tokushima / Japan	FD3-2 Chisso's Printing Materials for Printed Electronics H.Anraku, Chisso Petrochemical / Japan
13:50	FA3-3 Observation of Micro Solder Bump Replication Phenomena by High Speed CCD K.Yasuda, N.Amemori, O.Takai, Nagoya University / Japan	FB3-3 A Novel Biocompatible Direct Bonding Technique for Class Microdevices C.Wang ¹ , Y.Xu ¹ , J.Umeda ¹ , Y.Dong ² , K.Mawatari ¹ , T.Kitamori ¹ , T.Suga ¹ , ¹ The University of Tokyo, ² Chinese Academy of Inspection and Quarantine Science / Japan, China	FC3-3 A Dual Channel Defect Position Identification Method for Touch Panel Manufacturing Process H.Hamori, M.Sakawa, H.Katagiri, T.Matsui, Hiroshima University / Japan	FD3-3 High Performance Inkjet System S-200 S.Iguchi, ULVAC / Japan
14:15	FA3-4 Characterization of Hybrid Copper Paste as an Isotropic Conductive Adhesive Y.-S.Eom, J.-H.Noh, K.-S.Choi, J.-T.Moon, Electronics and Telecommunications Research Institute / Korea	FB3-4 Hermetic packaging for optical microsystems by Au-Au surface activated bonding in ambient air S.Yamamoto ¹ , E.Higurashi ¹ , T.Suga ¹ , R.Sawada ² , ¹ The University of Tokyo, ² Kyushu University / Japan	FC3-4 Estimation of Faulty Effects Caused by a Clack at an Interconnect Line in 90nm ICs K.Manabe, Kagawa National College of Technology / Japan	FD3-4 The New CAD to BMP Transformation Software M.Oda ¹ , K.Yamamoto ² , ¹ ULVAC, ² ZUKEN / Japan
14:40	FA4:Interconnection-5	FB4:MEMS-5	FC4:DMR-E-3	FD4:Printed-4
14:50	FA4-1 Effect of Nickel Addition on the Interfacial Reactions between Sn-3Ag-0.5Cu Solders and Immersion Silver Surface Finishes I.Siti Rabiattul Aisha ¹ , A.Ourdjini ¹ , O.Safoura ¹ , Y.T.Chin ² , ¹ University of Technology Malaysia, ² Intel Technology / Malaysia	FB4-1 Development of micro-coolers using thermoelectric materials L.L.Liao, Industrial Technology Research Institute / Taiwan R.O.C.	FC4-1 Performance Enhancements for Multi-Die DRAM Packages R.Crisp ¹ , W.Zohmi ¹ , B.Haba ¹ , D.Fann ² , W.Chang ² , A.Chang ² , ¹ Tessera, ² PowerTech / U.S.A., Taiwan R.O.C.	FD4-1 Printed Organic TFT for Flexible Devices H.Maeda, Dai Nippon Printing / Japan
15:15	FA4-2 Influence of UBM Layers on Electromigration Behavior of Micro-joints using Sn-Ag Solders D.Toyoshima, K.Yasaka, T.Sakai, T.Akamatsu, N.Imaizumi, S.Sakuyama, K.Uenishi, Osaka University / Japan	FB4-2 Significance of a priori prediction of encountered stresses during fabrication of smart monolithic sensor devices and packaging A.Matin, K.Oishi, T.Sugai, D.Akai, K.Sawada, M.Ishida, Toyohashi University of Technology / Japan	FC4-2 The multiple signal reflection cancellation design technique for high-speed transmission line in low-cost wire-bonding BGA packages T.Tsukuda, K.Hotta, S.Niszono, Renesas Electronics / Japan	FD4-2 Pico liter dispenser with needle and tube for repair systems Y.Kato, Applied Micro Systems / Japan
15:40	FA4-3 Computation Study on the Mechanical Properties and Electromigration in Nanoscale Cu/Sn/Cu and Cu/Sn-Bi/Cu Solder Joints S.Xu, Y.C.Chan, Q.Li, S.Ismathullakhan, City University of Hong Kong / Hong Kong	FB4-3 Formation of glass nano particles using electrospinning method K.Uchida, N.Miki, Keio University / Japan	FC4-3 Effect of PDN Impedance Change on Gbps Signal Propagation Using Decoupling Capacitor Embedded Interposer for 3D-Integrated LSI System K.Kikuchi ¹ , K.Shimamura ² , K.Takemura ² , T.Gomyo ² , T.Ookubo ² , T.Koyama ² , T.Murakami ² , M.Aoyagi ¹ , K.Otsuka ³ , ¹ National Institute of Advanced Industrial Science and Technology, ² Association of Super-Advanced Electronic Technologies, ³ Meisei University / Japan	FD4-3 The size effect in the resistivity of the narrow printed tracks C.J.Kim, M.Nogi, K.Suganuma, Osaka University / Japan
16:05	FA4-4 Effects of heat treatment on Kirkendall void formation at Cu/Sn-3.5Ag solder joint S.H.Kim, J.Yu, KAIST / Korea	FB4-4 Liquid encapsulation to MEMS and its application to a micropump K.Nakahara, Keio University / Japan	FC4-4 A New Approach for Higher Level of Power Integrity on Circuit Boards N.Sasaoka ¹ , T.Ochi ¹ , K.Otsuka ² , ¹ Nippon Kodoshi, ² Meisei University / Japan	(16:05) (16:15) FD4-4 Advancement of device prototyping and fabrication techniques for sensors and flexible electronics J.L.Zunino, D.P.Schmidt, A.M.Petrock, B.E.Fuchs, US Army Armament Research Development & Engineering Center / U.S.A.
16:30	FA5:Interconnection-6	FB5:MEMS-6	FC5:DMR-E-4	
16:40	FA5-1 Improvement of brittleness of pure Zn by addition of minor elements as high temperature lead-free solder S.W.Park, K.S.Kim, K.Suganuma, Osaka University / Japan	FB5-1 Fabrication and thermal design of a two directional electrostatic comb-drive actuator for capacitive sensing S.C.Choi, Advanced Industrial Science and Technology / Japan	FC5-1 A High Signal-Integrity PCB-Trace Composed of Multiole Segments for VLSI Packaging in GHz Domain M.Yasunaga ¹ , H.Shimada ¹ , S.Akita ¹ , M.Ishiguro ¹ , I.Yoshihara ² , ¹ University of Tsukuba, ² Miyazaki University / Japan	FD4-5 Shapeable Li-ion Batteries as Substrate: Printed Electronics Reliability N.B.Palacios-Aguilera ¹ , U.Balda-Irurzun ³ , A.Sridhar ^{3,4} , J.Bastemeijer ¹ , J.R.Mollinger ¹ , R.Akerman ¹ , J.Zhou ² , P.J.French ¹ , A.Bosche ¹ , ¹ Delft University of Technology, ² Philips Research Europe, ³ University of Twente, ⁴ Fraunhofer ENAS / The Netherlands, Germany
17:05	FA5-2 Influence of Zn Addition to Eutectic Sn-Bi Solder on Joint Reliability with Cu Electrode T.Akamatsu, Fujitsu Laboratories / Japan	FB5-2 Development and Design of Self-Breathing Micro Fuel Cells for Autonomous Portable Applications M.Weiland ¹ , S.Wagner ² , R.Hahn ² , H.Reichl ¹ , ¹ Technische Universitat Berlin, ² Fraunhofer Institute for Reliability and Microintegration / Germany	FC5-2 A Novel Magnetic Shield Structure for MRAMs with Perpendicular Magnetic Anisotropy T.Watanabe ¹ , T.Manako ² , S.Yamamichi ¹ , ¹ Renesas Electronics, ² NEC / Japan	FD4-6 Work Function Control for Printed Pattern Using Pressure Annealing Technique M.Yoshida, K.Suemori, S.Uemura, S.Hoshino, N.Takada, T.Kodaza, T.Kamata, National Institute of Advanced Industrial Science and Technology / Japan
17:30	FA5-3 The Development of an Improved Tin-Zinc Solder K.Sweatman, T.Nozu, T.Nishimura, Nihon Superior / Japan	FB5-3 Thin Film Resistors on Stainless as Sensing Elements for Strain Sensor Z.Zhang ^{1,2,3} , J.Chen ¹ , C.Liu ² , G.Cao ² , B.Song ³ , S.Liu ^{1,2} , ¹ Wuhan National Laboratory for Optoelectronics, ² Huazhong University of Science & Technology, ³ FineMEMS / China	FC5-3 Study on Wiring Characteristics for Isostatic Conductive Paste K.Hashimoto ¹ , Y.Akiyama ¹ , K.Kohn ¹ , K.Otsuka ¹ , K.Suganuma ² , M.Takeuchi ³ , ¹ Meisei University, ² Osaka University, ³ Uni-Science Takeuchi / Japan	(17:30)
17:55	FA5-4 Microstructural Analysis of Whiskers Nucleated from Lead-Free Tin-Copper Plating Films by Mechanical Stress Y.Mizuguchi, Sony / Japan	(17:55)	FC5-4 System Model Visualization Method for 3D-SiP H.Murata, Osaka University / Japan	
18:20				