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Keynotes

'**A Centre of Excellence to improve the Quality of Life and Human Health',** .....
Prof. Radimir Vrba, CEITEC, Central European Institute of Technology, Brno, Czech Republic

'**Future challenges and trends - Highlights of iNEMI 2011 Roadmap'** .....
Bill Bader, CEO of iNEMI, USA

TuA1: Packaging for Medical Applications

'Fabrication of a Novel Biochip Multi-Electrode Array Using Polyester Insulated Electrodes with Micro-Well Features for Cardiomyocyte Analysis' .....
Olivia Flaherty, Loughborough Univ., UK

'Innovative Manufacturing and 3-Dimensional Packaging Methods of Ultrasonic Transducers for Medical Applications' ......
Jack Hoyd-Gigg Ng, Heriot Watt Univ., UK

'Evaluation of Co-fired Platinum /Alumina High Density Feed-through for Implantable Neurostimulator Applications' ......
William Kinzy Jones, Florida International Univ., USA

TuA2: Substrate Technologies

'Co-Firing of LTCC Modules with Ag-electrodes and embedded Ferrite layers' .....
Hamid Naghibzadeh, Federal Materials Research Inst., Germany

'Embedded RFID TAG inside PCB board to improve supply chain management' .....
Julien Viret, Loughborough Univ., UK

'Manufacture of a 3-D Package Using Low Temperature Co-fired Ceramic Technology' .....
Yves Lacrotte, Heriot Watt Univ., UK

TuA – Display Presentations

'Non-Destructive X-Ray Mapping of Strain & Warpage of Die in Packaged Chips' .....
Patrick McNally, Dublin City Univ, Ireland

'Design, modelling and fabrication of novel MEMS structure utilizing carbon nanotubes' .....
Jiri Haze, Brno Univ of Tech, Czech Republic

'Inverse Modelling of the Button Shear Test' ......
Ilko Schmadlak, Freescale Semiconductor, USA

'Changes in Water Absorption and Modulus of Elasticity of Flexible PCB Materials in High RH Testing' ......
Sanna Maria Lahokallio, Tampere Univ, Finland

‘LTCC-based capacitive pressure sensor in harsh environment’ .....
Darko Belavic, HIPOT, Slovenia

TP1: Advanced Packaging Applications
‘A Comprehensive Packaging Solution For Next Generation IC Substrates’ .....
Stephen Kenny, Atotech, Germany

‘Modular Microelectronics by System-in-Packages with Embedded Components’ .....
Andreas Ostmann, Fraunhofer IZM, Germany

‘Packaging Challenges of Smaller Power MOSFETs & Schottky Diodes for the Automotive Sector’ .....
Kevin J Keller, OnSemi, USA

‘Application of an Angular Exposure System to Fabricate True-Chip-Size Packages for SAW Devices’ ......
Barbara Monika L'huillier, SUSS Micro Tec, Germany

TP2: Manufacturing Technologies
‘Silver-Palladium Pastes for Aluminium Nitride Applications’ ......
Kathrin Reinhardt, Fraunhofer IKTS, Germany

‘Miniaturization: Solder Paste Attributes for Maximizing the Print & Reflow Manufacturing Process Window’ ......
Karthik Vijay, Indium Corp., UK

‘Inkjet Printing of Electrical Vias’ .....
Werner Zapka, Xaar, Sweden

‘Copper Wire Bonding Experiences from a Manufacturing Perspective’ .....
Bernd Appelt, ASE Group, USA

TuP – Display Presentations
‘High speed bending of 2nd level interconnects on printed circuit boards for automotive electronics’ ......
Marcel Kouters, TNO, The Netherlands

‘Reliable hermetic MEMS chip-scale packaging’ ......
Guido Spinola Durante, CSEM, Switzerland

‘High resolution microstructural investigation of lead-free Al-Ge & Al-Ge-Cu alloys for high temp silicon die attach’ .....
Sandy Klengel, Fraunhofer IWMH, Germany

‘Reliability of ACA joined thinned chips on rigid substrates under humid conditions’ ......
Laura Katriina Frisk, Tampere Univ, Finland

‘BGA Lifetime Prediction in JEDEC Drop Tests Accounting for Copper Trace Routing Effects’ .....
Frank Kraemer, Saarland Univ, Germany

‘Electronic Packaging for Bio-Diagnostic Microfluidics Application’ ......
Mark Shaw, ST Microelectronics, Italy

IMAPS-Europe Electronics Business Council Session

‘Manufacturing business decisions: design and manufacture of new generation circuits’ ……
Michael A Lane, President, Struthers Dunn, South Carolina, USA

‘A Smarter Supply Chain – End to End Quality Management’ ……
Dr Kitty Pearsall, DE, ISC Procurement Engineering Organisation, IBM, USA

‘A Cross Supply Chain Collaborative Approach to Addressing the ……
Technical Challenges of Today’s Electronics Manufacturing Industry’
Brian Smith & Marshall Andrews, High Density Packaging User Group

WA1: Joint Behaviour
‘Computational Parametric Study on the Strain Hardening Effect of Lead-free Solder Joints in Board ……
Level Mechanical Drop Tests’
Jiang Tong, Univ. of Science & Tech, Hong Kong

‘Reliability Model for Assessment of Lifetime of Lead-Free Solder Joints’ ……
Ivan Szendiuch, Brno Univ. of Technology, Czech Republic

‘Modelling and Experimental Measurement of Multiple Joint Lead Free Solder Interconnects ……
Subjected to Low Cycle Mechanical Fatigue',
Elisha Kamara, Univ. Greenwich, London, UK

‘Effect of heating method on microstructure of Sn-3.0Ag-0.5Cu solder on Cu substrate’ ……
Hiroshi Nishikawa, Osaka Univ., Japan

WA2: Physico-Chemical Investigations
‘Electromigration Study of Nano Al Doped Lead- Free Sn-58Bi on Cu and Au/Ni/Cu Ball Grid Array ……
Packages’
Shafiq Ismathullakhan, City Univ., Hong Kong

‘Characterisation of ion transport during electroplating of high aspect ratio microvia by megasonic ……
agitation’
Suzanne Costello, Heriot Watt Univ., UK

‘Electrical Properties of an Isotropic Conductive Adhesive Filled with Silver Coated Polymer Spheres’ ……
Shiwani Jain, Loughborough Univ., UK

‘An Investigation of Lead-free Thick-film Resistors on LTCC Substrates – Preliminary Results’ ……
Marko Hrovat, Josef Stefan Inst., Slovenia

WA3: Reliability of Microstructures
‘Characterization of intermetallic compounds in Cu-Al ball bonds’ ……
Marcel Kouters, TNO, Netherlands

‘Effects of additional Co atoms on microstructural evolution in Sn-Ag-Bi-In solder under current ……
stressing’
Katsuaki Suganuma, Osaka Univ., Japan

‘Influence of Ti- surface contamination on reliability of Al wire bonds’ ……
Golta Khatibi, University of Vienna, Austria

‘Polymer cored BGA ball reliability optimisation’ .....
David C Whalley, Loughborough, Univ., UK

WA4: Electrical & Structural Modelling
‘Power Loss due to Periodic Structures in High-Speed Packages and PCBs’ .....
Paul Huray, Intel Corporation, USA

‘DoE Simulations and Measurements with the microDAC Stress Chip for Material and Package Investigations’ .....
Florian Schindler-Saefkow, Fraunhofer ENAS, Germany

‘Advancements in Fracture and Failure Simulation for Electronic Package Applications’ .....
David Reid, SIMULIA, Providence, USA

WA5: Substrate Interconnections
‘New Improvements in Thermal Management: Thick Print Copper Thick Film Replacement for DBC’ .....
Tracey Smolinsky, Heraeus Materials Technology, USA

‘Fine-line on LTCC-Substrates for 60 GHz Line Coupled Filters’ ......
Jens Müller, TU Ilmenau, Germany

‘Die-bonding by using thin Ag flakes’ ......
Soichi Sakamoto, Osaka Univ, Japan

‘Novel Approaches to create low cost Through Silicon Vias’ .....
Jan Eite Bullema, TNO, Netherlands

WA6: Reliability of Interconnects
‘Acceleration factors of combined reliability tests of lead-free interconnections’ ......
Przemyslaw Matkowski, Wroclaw Univ of Technology, Poland

‘Thermo-Mechanical Fatigue Life Evaluation for SnPb and SnAg Solders’ ......
Noritake Hiyoshi, Ishikawa National College of Tech, Japan

‘Effects of microstructure on creep deformation of Sn-3.5Ag alloys’ ......
Jin Yu, Kaist, South Korea

‘Characterization of 300mm Large Scale embedded Wafer Level BGA’ ......
Seung Wook Yoon, STATS ChipPAC, Singapore

WA – Display Presentations
‘Advanced Thermal Materials for Heat Sinks in Microelectronics ‘ ......
Mathias Ekpu, Univ Greenwich, UK

‘Emerging Nanotech-based Thermal Interface Materials for Automotive Electronic Control Units’. ......
Kenny Otiaba, Univ Greenwich, UK

‘3D LTCC & Flexible Interconnects Using Galvanized Layers’ ......
Michal Nicák, Brno Univ, Czech Rep.

‘Solder TIMs for Improved Thermal Management’ ....
Karthik Vijay, Indium Corp. UK

WP1: Nano Technology

'Low-Pressure Sintering of Ag Micro and Nano particles for a High Temp Stable Pick & Place Die Attach' .....
Julian Kähler, TU Braunschweig, Germany

'Low-temp, photonic approach to sintering ink-jet printed conductive microstructures containing nano silver particles' ......
Tomasz Falat, Wroclaw Univ of Technology, Pl

'Influence of different type protective layer on silver metallic nano-particles for Ink-Jet printing technique' ......
Andrzej Moscicki, Amepox Microelectronics, Poland

'Additive Photolithography Based Process for Metal Patterning Using Chemical Reduction on Surface Modified Polyimide' ......
David Ewan Watson, Heriot Watt Univ., UK

WP2: Bonding Technology

'Copper Makes A Lot Of Cents' ......
Chris Flowers, CSR, Cambridge, UK

'Current Industry Adoption of Fine-Pitch Cu Wire Bonding' ......
Grace O'Malley, iNEMI, Ireland

'Use of Harsh Wire Bonding to Evaluate Various Bond Pad Structures' ......
Stevan G Hunter, OnSemi, USA

'Flip-chip bonding of thin Si dies onto PET foils: possibilities and applications' ......
Jeroen van den Brand, TNO, Netherlands

WP3: Reliability Testing & Prognostics

'Effects of different combinations of environmental test on the reliability of UHF RFID tags' ......
Kirsi Saarinen, Tampere Univ, Finland

'A Dynamic Bending Method in CSP Package Validation for Portable Electronics' ......
Jeffrey ChangBing Lee, Integrated Service Technology Inc., Taiwan

'Data analysis techniques for real-time prognostic and health management of semiconductor devices' .....
Thamotharampillai Sutharssan, Univ., Greenwich, London, UK

WP – Display Presentations

'Planar Thick Film Inductor Characterization' .....
Jiri Pulec , Brno Univ, Czech Rep.

'Laser Patterning of Thin Films for Luminescence Applications' ......
Thomas Höche, Fraunhofer IWMH

'Effect of Substrates Surface Condition on the Morphology Silver Patterns Formed by Inkjet Printing' .....
Zhaoting Xiong, Loughborough Univ, UK

Embossed ceramic reflectors with nano-dispersive coatings for compact optoelectronic systems .....
Wolfgang Buss, Fraunhofer IOF

Dispensing process with additional ultrasonic energy .....
Martin Bursik, Brno Univ, Czech Rep.

3D TSV Middle-end Processes and Assembly/Packaging Technology .....
Seung Wook Yoon, STATS ChipPAC, Singapore

WP4: Photo-voltaics & LED Packaging
'Ultra Fine Line Print Process Development for Silicon Solar Cells' .....
Tom Falcon, DEK, UK

Mechanical Problems of Manufacturing Processes for Photovoltaic Modules' ......
Steffen Wiese, Saarland Univ., Germany

'Development of an intelligent integrated LED system-in-package' ......
Alexander Gielen, TNO, Netherlands

WP5: MEMS Packaging
'Multichip MEMS Sensor Packaging' ......
Mark Shaw, ST Microelectronics, Italy

'Miniaturised Integrated Hybrid Microsystem Assemblies for Harsh Environment Applications' ......
Stephen Riches, GE Aviation Systems, UK

'Requirements for microfluidic sensors based on ceramic technologies' .....
Samuel Hildebrandt, TU Dresden, Germany

ThA1: Eco Energy Technology & Reliability
'Multilayer technology as integration system for ceramic micro fuel cells' ......
Adrian Goldberg, Fraunhofer IKTS, Germany

'The i-Module Approach: Towards Improved Performance and Reliability of Photovoltaic Modules' .....
Jonathan Govaerts, IMEC, Belgium

'Improved Testing of Soldered Busbar Interconnects on Silicon Solar Cells' ......
Robert Klengel, Fraunhofer IWMH, Germany

'Solidification Processes of SnCu and SnAgCu solder alloys and interface reactions to charactise solar ......
cell interconnections processes'
Sebastian Schindler, Fraunhofer CSP, Germany

ThA2: Embedded Packaging Technology
'3D Stacking Approaches for Mould Embedded Packages' ......
Tanja Braun, Fraunhofer IZM, Germany

'Chip embedding technology developments leading to the emergence of miniaturized system-in- ......
packages'
Dionysios Manessis, Fraunhofer IZM, Germany

‘Technology development for a low-cost, roll-to-roll chip embedding on PET foils’
Maarten Cauwe, IMEC, Belgium

ThA3: Special Applications Technologies

‘Novel Approach for Integrating Electronics into Textiles at Room Temperature using a Force-Fit Interconnection’
Erik Simon, Fraunhofer IZM, Germany

‘Microsoldering with short-pulsed IR Laser for Textile Fabrics’
Hartmann Hieber, ICR, Germany

‘High Temperature Electronics for Harsh Environments’
Bob Hunt, Strategic Technologist, CMAC MicroTechnology, Great Yarmouth, UK

ThA4: Advanced Packaging

‘Fine Pitch Flip-Chip Chip-Scale Packaging’
Bernd Appelt, ASE Group, USA

‘Copper Wire Bond investigation on Multiple Surface Finishes - Enabling Wire Bond Packages without Gold’
Nigel White, Atotech, Germany

‘Low Temperature Wafer Bonding Technologies’
Marco Haubold, Fraunhofer ENAS, Germany

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