

Registration 9:10-

Plasma Science 4	9:30-10:00 Invited Lecture <03aB011> Peter J. Bruggeman (University of Minnesota) "Plasma-Liquid Interactions: Fundamentals and Applications" <Chair> Daisuke Ogawa (Chubu University)	Nitride Semiconductors 2 Optical Devices 2 <Chair> Q. Sun (Chinese Academy of Science)	9:30-10:00 Invited Lecture <03aC011> Koichi Naniwae (EL-Seed Corp.) "Moisture Patterned Sapphire Substrate Technology for Low Cost and High Efficiency LEDs" 10:00-10:15 1273 <03aC020> Hiroto Sekiguchi "Si Channelled Implantation in GaN and its Device Application" 10:15-10:30 1197 <03aC030> Sung Geun Bae/Fabrication of HVPE selective area growth InGaN LED" 10:30-10:45 1221 <03aC040> Frank Wilson Amalraj "Epitaxial Growth of GaN by Radical-Enhanced Metalorganic Chemical Vapor Deposition (REMOCVD) Effect of InN Nucleation Layer" 10:45-11:00 1376 <03aC050> Akio Ohta "Total Photoelectron Yield Spectroscopy of Electronic States of GaN Surface"	Nanomaterials 3 Solar Cell and Related Materials <Chair> Y. Ichikawa (JST FUTURE-PV Innovation), T. Itoh (Gifu University)	9:30-10:00 Invited Lecture <03aD011> Yukimi Ichikawa (JST FUTURE-PV Innovation) "Silicon Nano-wall Arrays and their Application to Wide Bandgap Solar Cells" 10:00-10:15 1165 <03aD020> Shunya Naito "Two-Step Photon Absorption in Intermediate Band Solar Cells Controlled by the Electron Filling Ratio of Quantum Dots" 10:15-10:30 1200 <03aD030> Pi-Chun Juan "Substrate Thickness Effect of Stainless Steel for Flexible CZTSSe Solar Cells" 10:30-10:45 1239 <03aD040> Chung Wung Bark "Largely Enhanced Photovoltaic Effect in Ferroelectric Complex Oxides through Bandgap Reduction" 10:45-11:00 1327 <03aD050> Xin Hong Huang "Enhancing the Power Conversion Efficiency of Perovskite Solar Cells with a Near Infrared Absorption Layer"	Bioapplications 3 Plasma Agriculture <Chair> A. Fridman (Drexel University)	9:30-10:00 Invited Lecture <03aE011> Suk Jae Yoo (National Fusion Research Institute) "Comprehensive Plasma Application to Agriculture: Plasma Farming" 10:00-10:15 1163 <03aE020> Chin Wei Liao "Development of a Compact Argon-based Round Atmospheric-Pressure Plasma Jet for Sterilization of Trichophyton Rubrum and Candida Albicans" 10:15-10:30 1193 <03aE030> Masashi Okachi "Effects of Nitric Oxide Radicals on Growth Promotion of Budding Yeast Cells" 10:30-10:45 1353 <03aE040> Masahiro Yamanaka "Non-Destructive Observation of Rice Grains by Optical Coherence Tomography" 10:45-11:00 1350 <03aE050> Katsuyuki Takahashi "Evaluation of Hydroxyl Radicals Produced by Discharge Inside Bubble in Water with Organic Dye"
Break 11:00-11:15		Break 11:00-11:15		Break 11:00-11:15		Break 11:00-11:15	
Plasma Science 5	11:15-11:45 Invited Lecture <03aB061> Hisataka Hayashi (TOSHIBA) "Layer-by-layer Etching of LaAISiO ₂ " Etching <Chair> Makoto Sekine (Nagoya University)	Nitride Semiconductors 3 Electron Devices 1 <Chair> H. Kawai (POWDEC K.K.)	11:15-11:45 Invited Lecture <03aC061> Enrico Zanoni (Universita' di Padova) "Role of Deep Levels and Time-Dependent Breakdown Effects in Determining Performances and Reliability of Power GaN Devices" 11:45-12:15 Invited Lecture <03aC071> Fuminasa Horikiri (SCIOCS) "Development of Free-Standing GaN Substrates and High Breakdown Voltage GaN p-n Diodes" 12:15-12:30 1301 <03aC080> Noriyuki Taoka "Impacts of Oxidants for ALD Process on Al ₂ O ₃ /GaN Interface Properties"	Nanomaterials 4 Nanocomposite Alloy <Chair> N. Fukata (National Institute for Materials Science), Y. Watanabe (Nagoya Institute of Technology)	11:15-11:45 Invited Lecture <03aD061> Naoki Fukata (National Institute for Materials Science) "Control of Growth and Impurity Doping in Ge/Si Core-shell Nanowires" 11:45-12:00 1255 <03aD070> Hisashi Sato "Formation Process of Nanocrystallized Layer in Fe-Ni Alloy by Sliding Wear" 12:00-12:15 1272 <03aD080> Naoki Hamano "Fabrication of ZnO/ Ti Functionally Graded Materials using a Slurry Layering Method"	Bioapplications 4 Biomicrofluidics and Material Processing <Chair> M. Sasaki (Toyota Technological Institute)	11:15-11:45 Invited Lecture <03aE061> Yoshikazu Hirai (Kyoto University) "Body-on-a-chip: An Application of 3-D Microstructuring Techniques" 11:45-12:00 1113 <03aE070> Yusuke Nakanishi "Analysis of Plasma-Generated Reactive Species in Liquid" 12:00-12:15 1284 <03aE080> Chen-Kuang Chiang "Improvement of the Signal on Microfluidic Paper-based Device by Plasma-induced Polymerization of Sulfobetaine Methacrylate" 12:15-12:30 1098 <03aE090> Chun-Ping Hsiao "Aerosol-Assisted Atmospheric Pressure Plasma Depositing Biocomposite PE Coatings: Investigation of Enhancing the Coating Coherence"
Lunch 12:30-14:00		Lunch 12:30-14:00		Lunch 12:30-14:00		Lunch 12:30-14:00	
Topical Session 1	14:00-14:30 Invited Lecture <03pA101> Yuji Miyahara (Tokyo Medical and Dental University) "Detection of Biomolecular Recognition and Cell Functions using Bio-Transistors"						
Bio-Application based on Plasma Technology	14:30-15:00 Invited Lecture <03pA111> Robert D. Short (University of South Australia) "On the Effect of Plasma (Media) Treatment on Cell Division"						
S. J. Yoo (National Fusion Research Institute)		Break 15:00-15:15					
	15:15-15:45 Invited Lecture <03pA121> Masashi Ueda (Okayama University) "Analysis of Inflammation after Hemostasis with Non-Thermal Plasma by using Molecular Imaging Technique"						
	15:45-16:15 Invited Lecture <03pA131> Ki-Hun Jeong (KAIST) "Nanoplasmonic Surfaces for Surface Enhanced Raman Scattering"						
Break 16:15-16:30							
Poster Session ② 16:30-18:00							
Banquet 18:00-20:00							