

ISPlasma2011 PROGRAM

3rd International Symposium on Advanced Plasma Science and its Applications for Nitrides and Nanomaterials

MAR 6 (Sun)	MAR 7 (Mon)	MAR 8 (Tue)	MAR 9 (Wed)			
	(8:45-) Registration	(9:00-) Registration	(9:00-) Registration			
<p>Opening/Plenary Lecture Chair: H. Masuda (Nagoya Inst. of Tech., Japan)</p> <p>(9:15-9:30) Opening <Guest Address> Y. Tokiwa (Deputy Director-General, Ministry of Education, Culture, Sports, Science and Technology, Japan) <Organizer Address> M. Matsuo (President, Aichi Science & Technology Foundation, Japan) <ISPlasma2011 Organizing Committee Chair Address> M. Hori (Nagoya University, Japan) (9:30-9:40) Opening Talk Y. Ohtsuka (Aichi Science & Technology Foundation, Japan) "Tokai Region Nanotechnology Manufacturing Cluster and its Expansion Program"</p> <p>(9:40-10:10) Plenary Lecture 7a-A01PL Hiroyuki Sakaki (Toyota Technological Institute, Japan) "From Superlattices to Quantum Dots: Roles of Nanostructures in Advanced Electronics and Photonics"</p>	<p>Plasma Science and Technology 3 Etching Process Chair: F. Laermer (Robert Bosch GmbH, Germany)</p> <p>(9:20-9:50) Keynote Lecture 8a-A01KA M. J. Goeckner (Univ. of Texas, Dallas, USA) "An Improved Understanding of Fluorocarbon Plasmas"</p> <p>(9:50-10:20) Keynote Lecture 8a-A02KA A. Wendt (Univ. of Wisconsin - Madison, USA) "Control of Bombarding Ion Energy Distributions in Plasma Processing"</p> <p>(10:20-10:40) 8a-A03OA K. Hirota (Hitachi, Ltd., Japan) "Study of Process Drift Caused by Ti Residues on Reactor Walls in Metal Gate Etching"</p>	<p>Nitride Semiconductors 3 Device Characterizations Chair: Y. Tokuda (Aichi Inst. of Tech., Japan)</p> <p>(9:20-9:50) Keynote Lecture 8a-B01KB F. Ponce (Arizona State Univ., USA) "Polarization Effects in Group-III Nitride Semiconductor Heterostructure Devices"</p> <p>(9:50-10:10) 8a-B02OC Z. Chen (Nagoya Inst. of Tech., Japan) "Optical Properties and Deep Traps of InAlN Lattice-matched to GaN Grown by MOCVD"</p> <p>(10:10-10:30) 8a-B03OC Y. Nakano (Chubu Univ., Japan) "Correlation between Current Collapse and Deep Level Defects in AlGaIn/GaN Heterostructures Probed by Photo-Capacitance Spectroscopy"</p>	<p>Plasma Science and Technology 5 Thin Film Deposition Processes Chair: M. Kondo (AIST, Japan)</p> <p>(9:20-9:50) Keynote Lecture 8a-C01KC A. Yoshino (Asahi Kasei Corp., Japan) "Latest trends of Lithium Ion Battery Technology and Market"</p> <p>(9:50-10:10) 8a-C02OC N. Imanishi (Mie Univ., Japan) "High Performance Si/Disordered Carbon with CNFs Composites for Lithium Ion Batteries"</p> <p>(10:10-10:30) 8a-C03OC Z. Quan, N. Sonoyama (Nagoya Inst. of Tech., Japan) "Electrochemical property of LiCoO₂ thin films composed of nanoparticles"</p>	<p>Nanomaterials 3 Lithium-ion Rechargeable Battery Cells Chair: S. Kawasaki (Nagoya Inst. of Tech., Japan)</p> <p>(9:20-9:50) Keynote Lecture 8a-D01KA J. G. Han (Sungkyunkwan Univ., Korea) "Novel Plasma Processes for Functional Thin Films for Flexible Electronics"</p> <p>(9:50-10:10) Keynote Lecture 8a-D02KA J. Vloek (Univ. of West Bohemia, Czech Republic) "Pulsed Magnetron Deposition of High-Temperature Si-B-C-N Films"</p> <p>(10:20-10:40) 8a-D03OA Kusumandari (Nagoya Univ., Japan) "Characterization of Damages of Al₂O₃/Si₃N₄ Gate Stacks Structure Induced with Light Radiation during Plasma Nitridation"</p>	<p>Nitride Semiconductors 7III-Nitride Microstructures Chair: A. Subramaniam (Nanyang Tech. Univ., Singapore)</p> <p>(9:20-9:50) Keynote Lecture 8a-E01KB F. Scholz (Ulm Univ., Germany) "Semipolar GaInN Quantum Well Structures on Large Area Substrates"</p> <p>(9:50-10:10) 8a-E02OC Chia-Feng Lin National Chung Hsing University, Taiwan) "Micro-Square-Array InGaN-based Light-Emitting Diode with an insulated Ga₂O₃ layer through a photoelectrochemical process"</p> <p>(10:10-10:30) 8a-E03OC T. Araki (Ritsumeikan Univ., Japan) "TEM Study on Microstructure of Mg-doped InN Grown by RF-MBE Using DERI Method"</p>	<p>Nanomaterials 5 Composite/Functionally Graded Materials Chair: E. Miura (Nagoya Inst. of Tech., Japan)</p> <p>(9:20-9:50) Keynote Lecture 8a-F01KC K. Mizuuchi (Osaka Municipal Tech. Research Inst., Japan) "Identification and Development of Synthetic Routes for Enhancing Performance of Heat Dissipative Metal Matrix Composites in Continuous Solid-Liquid Co-Existent State"</p> <p>(9:50-10:10) 8a-F02OC H. Sato (Nagoya Inst. of Tech., Japan) "Effects of Dispersoids on Wear Behavior of Cu-based Composite Containing SiO₂ Particles"</p> <p>(10:10-10:30) Invited Lecture 8a-F03OC Y. Ishikawa (JFCC) "White Photoluminescence from Carbon Incorporated Silica"</p>
	(10:10-10:30) Coffee Break	(10:40-10:50) Coffee Break	(10:30-10:50) Coffee Break			
<p>Special Keynote Lecture/ Tokai Region Cluster Chair: S. Noda (ASTF, Japan)</p> <p>(10:30-11:00) Special Keynote Lecture 7a-A02SK John Robertson (Cambridge Univ., UK) "Applications of Carbon Nanotubes Grown by Chemical Vapor Deposition"</p> <p>(11:00-11:20) Tokai Region Cluster 7a-A03C M. Hori (Nagoya Univ., Japan) "Fundamental Research and Global Innovation on Plasma Nanoprocessing"</p> <p>(11:20-11:35) Tokai Region Cluster 7a-A04C T. Egawa (Nagoya Inst. of Tech., Japan) "Study on AlGaIn/GaN HEMT Grown on Si Substrate"</p> <p>(11:35-11:50) Tokai Region Cluster 7a-A05C O. Takai (Nagoya University, Japan) "Material Development by Means of Solution Plasma"</p> <p>(11:50-12:05) Tokai Region Cluster 7a-A06C Y. Watanabe (Nagoya Inst. of Tech., Japan) "Drilling of Carbon Fiber Reinforced Plastic by Gyro-driven Metal-bonded Grinding Wheel"</p>	<p>Plasma Science and Technology 4 Etching Process II Chair: M. J. Goeckner (Univ. of Texas, Dallas, USA)</p> <p>(10:50-11:20) Keynote Lecture 8a-A04KA F. Laermer (Robert Bosch GmbH, Germany) "BOSCH-DRIE: Impact on MEMS and Applications"</p> <p>(11:20-11:40) 8a-A05OA J. Ladroue (GREMI-STMicroelectronics, France) "Deep Gallium Nitride Etching: Ways to Avoid Etching Defects"</p> <p>(11:40-12:00) 8a-A06OA X. Li (Univ. of Glasgow, Scotland) "A Low Damage Etching Process of Sub-100 nm Platinum Gate Line for 65-V MOSFET Fabrication and the Optical Emission Spectrometry of the Inductively Coupled Plasma of SF₆/CF₄"</p>	<p>Nitride Semiconductors 4 GaN/In and its Applications Chair: K. Inoue (Panasonic Corp., Japan)</p> <p>(10:50-11:20) Keynote Lecture 8a-B04KB A. Krost (Otto von Guericke Univ. Magdeburg, Germany) "Present and Future of GaN-on-Si"</p> <p>(11:20-11:40) Invited Lecture 8a-B05IB S. Arulkumar (Nanyang Tech. Univ., Singapore) "High Off-state Breakdown Characteristics of AlGaIn/GaN HEMTs on 4-inch Si"</p> <p>(11:40-12:00) 8a-B06OB Y. Liu (Sun Yat-sen University, China) "Normally-off AlGaIn/GaN HFETs on Si (111) Substrate Fabricated by Selective Area Growth Technique"</p>	<p>Nanomaterials 4 Porous Materials Chair: T. Inomata (Nagoya Inst. of Tech., Japan)</p> <p>(10:50-11:20) Keynote Lecture 8a-C04KC H.-C. Zhou (Texas A&M Univ., USA) "Super Hard Diamond-like Carbon Films: A State-of-the-Art"</p> <p>(11:20-11:40) Invited Lecture 8a-C05IC S. Furukawa (Kyoto Univ., Japan) "An Entangled Porous Framework As a Luminescent Sensor"</p> <p>(11:40-12:00) Invited Lecture 8a-C06IC A. Takeno (Gifu Univ., Japan) "Nano Porous Polymer Film and Fiber by Craze Processing"</p>	<p>Plasma Science and Technology 6 Soli Gate Based on Plasma Science Chair: J. G. Han (Sungkyunkwan Univ., Korea)</p> <p>(9:20-9:50) Keynote Lecture 8a-D04KA M. Kondo (AIST, Japan) "Plasma Processing for Innovative PV Technologies"</p> <p>(10:40-11:00) 8a-D05OA M. Sato (Kyushu Univ., Japan) "Generation of Nitridated Silicon Nanoparticles by Double Multi-Hollow Discharge CVD"</p>	<p>Nitride Semiconductors 8 Growth of GaN and Related Materials Chair: F. Scholz (Ulm Univ., Germany)</p> <p>(10:50-11:20) Keynote Lecture 8a-B04KB E. Yoon (Seoul National Univ., Korea) "Growth of Less Bowled GaN Using InN Interlayer by MOCVD"</p> <p>(11:20-11:40) 8a-B05OB Y. Tomita (LayTec GmbH, Germany) "In-situ Measurement of Water Bow and GaN Surface Temperature-how MOCVD Process Parameters Influence the Uniformity of LED Wafers"</p> <p>(11:40-12:00) 8a-B06OB T. Kawamura (Mie Univ., Japan) "Molecular Dynamics Simulation of Solution Growth of GaN"</p>	<p>Nanomaterials 6 Nanocarbon Materials Chair: H. Takikawa (Toyochem, Japan)</p> <p>(10:50-11:20) Keynote Lecture 8a-C04KC S. Iijima (Meijo Univ., Nagoya) "Nanocarbon Materials: Synthesis, Characterization and Application"</p> <p>(11:20-11:40) 8a-C05OC H. Kondo (Nagoya Univ., Japan) "Study on Crystallographic Features of Carbon Nanowalls using Synchrotron X-ray"</p> <p>(11:40-12:00) 8a-C06OC T. Kato (Tohoku Univ., Japan) "Novel Approach for Detailed Structure Control of Single-Walled Carbon Nanotubes based on Time-Programmed Plasma CVD"</p>
	(12:05-13:00) Lunch	(12:10-13:00) Lunch	(12:00-13:00) Lunch			
	(13:00-14:30) Poster Session 1	(13:00-14:30) Poster Session 3	(13:00-14:30) Poster Session 4			
<p>Plasma Science and Technology 1 Advanced Plasma Measuring Technology Chair: D. Graves (Univ. of California, Berkeley, USA)</p> <p>(14:30-15:00) Keynote Lecture 7p-A01KA U. Czarnetzki (Ruhr-Univ. Bochum, Germany) "Determination of Electron Densities by Diode-Laser Absorption Spectroscopy"</p> <p>(15:00-15:30) Keynote Lecture 7p-A02KA J. P. Booth (CNRS, France) "Seeing Inside Plasma Etch Reactors: From Diagnostics to Sensors for Control"</p> <p>(15:30-15:50) 7p-A03OA I. Liang (Chubu Univ., Japan) "Electron Density Measurement by Novel Frequency Shift Probe"</p> <p>(15:50-16:10) 7p-A04OA N. Sumi (Nagoya Univ., Japan) "Real-time Electron-spin-resonance Measurement of Plasma Induced Surface Interactions"</p>	<p>Nitride Semiconductors 1 Plasma Assisted Growth Chair: N. Grandjean (EPFL, Switzerland)</p> <p>(14:30-15:00) Keynote Lecture 7p-B01KB B. Daudin (CEA Grenoble, France) "Growth, Structural and Optical Properties of InGaInGaN Nanowires"</p> <p>(15:00-15:20) 7p-B02OB Y. Kawai (Nagoya Univ., Japan) "Realization of Excellent Crystalline Quality of AlGaIn Epilayer Grown on AlN Template by Plasma-assisted"</p> <p>(15:20-15:40) 7p-B03OB T. Ohachi (Doshisha Univ., Japan) "Parallel Mesh Electrode to Monitor Nitrogen Atoms for Growth of III Nitride Semiconductors by PA-MBE"</p> <p>(15:40-16:00) 7p-B04OB J. Birch (Linkoping Univ., Sweden) "Ion-assisted Magnetron Sputter Epitaxy of Group III-nitrides"</p>	<p>Nitride Semiconductors 5 Recent Progress in Nitride Devices Chair: M. Higashiwaki (National Inst. of Info. and Comm. Tech., Japan)</p> <p>(14:30-15:00) Keynote Lecture 7p-C01KC M. Oda (ILVAC, Inc., Japan) "Individually Dispersed Nanoparticles by Gas Evaporation and their Applications"</p> <p>(15:00-15:20) 7p-C02OC R. Boswell (Australian National Univ., Australia) "Low Temperature Sputtering of Nanocrystalline N-doped TiO₂ Thin Films with Ar/O₂/N₂ Helicon Plasma"</p> <p>(15:20-15:40) 7p-C03OC S. Yoo (Mie Univ., Japan) "Pulse Plasma CVD on the Growth of Nanorod"</p> <p>(15:40-16:00) 7p-C04OC S. Machumuda (Kumamoto Univ., Japan) "Gold and Silver Nanoparticles Produced by Pulsed Laser Ablation in Supercritical CO₂"</p>	<p>Industry-Academia-Government Collaboration 1 Global Open Innovation 1 Chair: E. Hamada (Nagoya Inst. of Tech., Japan)</p> <p>(14:30-15:00) Keynote Lecture T. Arimoto (JST, Japan) "Japan's New Science and Innovation Policy -Beyond the Boundaries for Innovation-"</p> <p>(15:00-15:05) Keynote Lecture C. Mantel (Selantek, Inc., USA) "Lecture by Dr. Mantel has been canceled. Explanation by K. Yoshimura (ASTF) "Semiconductor Manufacturing -Future Technology-"</p> <p>(15:05-15:35) Keynote Lecture W. Vandervorst (IMEC, Belgium) "Imec, a Research Center with Flexible Business Opportunities Balancing between Fundamental Research, Advanced Technology and Innovative Applications"</p> <p>(15:35-16:05) Keynote Lecture W. Izumiya (SangyoTimes Inc., Japan) "Current Situation and Direction for Development on Semiconductor Industry in Asia/Japan"</p> <p>(16:05-16:30) Keynote Lecture M. Hori (Nagoya Univ., Japan) "Foundation of Global Innovation Research Center for Advanced Plasma Science and Technology"</p>			
	(16:10-16:20) Coffee Break	(16:30-16:50) Coffee Break	(16:30-16:40) Coffee Break			
<p>Plasma Science and Technology 2 Simulation Chair: U. Czarnetzki (Ruhr-Univ., Bochum, Germany)</p> <p>(16:20-16:50) Keynote Lecture 7p-A05KA D. Graves (Univ. of California, Berkeley, USA) "Plasma-Surface Interactions at the Nanometer Scale"</p> <p>(16:50-17:10) Invited Lecture 7p-A06IA S.-Y. Kang (Tokyo Electron Ltd. Technology Development Center) "The Effect of Additional Database on Plasma Simulation for Etching Process"</p> <p>(17:10-17:30) Invited Lecture 7p-A07IA Y. Tanaka (Kanazawa Univ., Japan) "Numerical Thermofluid Model of High-Power High-Pressure ICs with Molecular gases using Reaction Kinetics"</p>	<p>Nitride Semiconductors 2 Optical Devices Chair: F. Ponce (Arizona State Univ., USA)</p> <p>(16:20-16:50) Keynote Lecture 7p-B05KB N. Grandjean (EPFL, Switzerland) "AlInN Alloy for Electronic and Optoelectronic Applications"</p> <p>(16:50-17:10) 7p-B06OB W. Y. Weng (National Cheng Kung Univ., Taiwan) "High Responsivity GaN Nanowire-based UV Photodetectors"</p>	<p>Nanomaterials 2 Surface Modification/Surface Functionalization Chair: K. Makihara (Nagoya Univ., Japan)</p> <p>(16:20-16:50) Keynote Lecture 7p-C05KC H. Takikawa (Toyochem, Japan) "Super Hard Diamond-like Carbon Films: A State-of-the-Art"</p> <p>(16:50-17:10) 7p-C06OC J.-H. Jin (Korea Univ., Korea) "Effects of Plasma Surface Functionalization on Biosensing Characteristics of a Fully-Integrated CNT-based Electrode System on Glass Substrate"</p> <p>(17:10-17:30) 7p-C07OC C. Geffers (RWTH Aachen Univ., Germany) "Nanophase Hardfaced Coatings"</p>	<p>Industry-Academia-Government Collaboration 2 Global Open Innovation Chair: H. Toyoda (Nagoya Univ., Japan)</p> <p>(16:40-16:45) Panel Discussion Application of Advanced Plasma Technology for Nitride Semiconductors II Succeeding to ISPlasma2010, the role of plasma science and technology for applications to nitride semiconductors such as; plasma processing for device fabrication and nitrogen radical source for crystal growth and others will be discussed. <Moderator> Y. Nanishi (Ritsumeikan Univ., Japan/Seoul National Univ., Korea) <Panelist> T. Yutaka (Aichi Inst. of Tech., Japan) A. Uedono (Tsukuba Univ., Japan) B. Daudin (CEA Grenoble, France) H. Kano (NU Eco Engineering Co., Ltd., Japan) N. Grandjean (EPFL, Switzerland) A. Khan (Univ. of South Carolina, USA) D. Alquier (Université de Tours, France) H. Amano (Nagoya Univ., Japan) E. Monroy (CEA Grenoble, France)</p>			
<p>(17:30-) Registration</p>	<p>(17:30-19:00) Poster Session 2</p>	<p>(18:10-18:30)</p>	<p>(18:00) Closing</p>			
<p>(18:00-19:30) Welcome Party (Café Sala at NIT)</p>	<p>(18:30-20:00) Banquet (SAPPORO NAGOYA BREWERY KOUYOUEN)</p>	<p>*The following lecture has been canceled. Mar. 9 (Wed) 10:50-11:20 Nanomaterials 6 Nanocarbon Materials Keynote Lecture: M. Meyyappan (NASA Ames Research Center, USA) "Plasma Nanotechnology: Past, Present, and the Future"</p>				

Simultaneous Interpretation
 Registration Fee: FREE