

ISPlasma2013 PROGRAM
(JAN 28~FEB 1, 2013:Nagoya University)

JAN 28 (Mon)		JAN 29 (Tue)					
		(9:00-) Registration					
		Opening (9:20-9:35) Opening <Guest Address> T. Satomi (Director of University-Industry Cooperation and Regional R&D Division, Ministry of Education, Culture, Sports, Science and Technology, Japan) <Organizer Address> S. Kato (Tokai Region Knowledge Cluster Headquarters, Aichi Science & Technology Foundation, Japan) <ISPlasma2013 Organizing Committee Chair Address> M. Hori (Nagoya Univ., Japan)					
		<Room A> (9:35-9:45) Opening Talk Y. Ohtsuka (Tokai Region Knowledge Cluster Headquarters, Aichi Science & Technology Foundation, Japan)					
		(9:45-10:15) Knowledge Cluster Lecture Tua-A01C M. Hori (Nagoya Univ., Japan)					
		(10:15-10:30) Break					
		Plenary/Keynote Lecture (10:30-11:10) Plenary Lecture Tua-A02PL H. Ohno (Tohoku Univ., Japan) "Spintronics makes CMOS VLSI nonvolatile" Chair: S. Miyazaki (Nagoya Univ., Japan)					
		<Room A> (11:10-11:40) Keynote Lecture Tua-A03K J. G. Han (Sungkyunkwan Univ., Korea) "Challenge of plasma-nano technology for next generation frontier industry"					
		(11:40-12:10) Keynote Lecture Tua-A04K R. Ruoff (The Univ. of Texas at Austin, USA), L. Colombo (Texas Instruments Inc., USA) "Graphene and h-BN at the Interface"					
(12:30-) Registration		(12:10-13:20) Lunch					
Tutorial Plasma Science (13:00-13:45) L. Overzet (The Univ. of Texas at Dallas, USA) Chair: H. Toyoda (Nagoya Univ., Japan) "Fundamental aspects of high aspect ratio silicon etching"		(13:20-14:50) Poster Session 1					
<Room C> (13:45-14:30) K. Sasaki (Hokkaido Univ., Japan) "Introduction to advanced plasma diagnostics for material processing"		Plasma Science 1 (14:55-15:20) Invited Lecture Tup-A01A U. Czarnetzki (Ruhr Univ., Bochum, Germany) "Structured electrodes: denser and more homogeneous plasmas" Chair: P. Chabert (LPP, CNRS Ecole Polytechnique, France)	Nitride Semiconductors 1 (14:55-15:20) Invited Lecture Tup-B01IB R. Dwilinski (Ammono Company, Poland) "Bulk GaN substrates grown by ammonothermal method" Chair: H. Amano (Nagoya Univ., Japan)	Nanomaterials 1 (14:55-15:20) Invited Lecture Tup-C01C I. Lee (Chonbuk National Univ., Korea) "Localized surface plasmon mediated nanopillar light-emitting diode by Ag and Ag/SiO ₂ nanoparticles"	<Room C> (15:20-15:40) Tup-C02OC Y. Wang (National Cheng Kung Univ., Taiwan) "N-channel organic memory devices with TiO ₂ nanoparticles/polyimide insulator blends: Extra-high memory window"		
(14:30-14:40) Break		<Room A> (15:20-15:40) Tup-A02OA M. Shiratani (Kyushu Univ., Japan) "Time evolution of nanoparticle size in reactive plasmas: Comparison between theory and experiments"	<Room B> (15:20-15:40) Tup-B02OB S. Kitagawa (Mie Univ., Japan) "Growth of thick AlN on 6H-SiC substrate by low-pressure HVPE"	(15:40-16:00) Tup-B03OB Y. Tomita (LayTec AG, Germany) "Strain engineering using in-situ curvature measurements and reduction of plastic deformation during the growth of GaN on various Si substrates"	(15:40-16:00) Tup-C03OC K. Nagashio (The Univ. of Tokyo, Japan) "Extraction of quantum capacitance in monolayer graphene"		
Tutorial Nitride Semiconductors (14:40-15:25) J. Duboz (CRHEA-CNRS, France) "Light matter interaction in GaN" Chair: A. Wakahara (Toyohashi Univ. of Tech., Japan)		(16:00-16:20) Tup-A04OA Y. Yang (National Chiao Tung Univ., Taiwan) "A cold planar nitrogen atmospheric-Pressure plasma jet with enhanced UV emission and radical generation using short electrodes"	(16:00-16:20) Tup-B04OB I. Shin (Seoul National Univ., Korea) "Improved crystalline quality of low temperature GaN by using a pre-deposited indium layer"	(16:00-16:20) Tup-C04OC Y. Ding (Tokyo Inst. of Tech., Japan) "Silicon nanocrystal fabrication by using non-thermal plasma and application to hybrid Si-nanocrystal/P3HT solar cells"			
(16:10-16:20) Break		(16:20-16:40) Break		(16:20-16:40) Break			
Tutorial Nanomaterials (16:20-17:05) F. Fracassi (Univ. of Bari, Italy) "Nanomaterial preparation with nonequilibrium plasmas" Chair: T. Shirafuji (Osaka City Univ., Japan)		Plasma Science 2 (16:40-17:05) Invited Lecture Tup-A05IA P. Chabert (LPP, CNRS Ecole Polytechnique, France) "Modeling of atmospheric capacitive discharges in He/O ₂ " Chair: U. Czarnetzki (Ruhr Univ., Bochum, Germany)	Nitride Semiconductors 2 (16:40-17:05) Invited Lecture Tup-B05IB W. Walukiewicz (Lawrence Berkeley National Lab., USA) "In-rich group III-nitride alloys for solar power utilization devices" Chair: R. Dwilinski (Ammono Company, Poland)	Nanomaterials 2 (16:40-17:05) Invited Lecture Tup-C05IC T. Wei (Chung-Yuan Univ., Taiwan) "Rapid grafting of anti-biofouling and environment-responsive polymers by atmospheric-pressure plasmas" Chair: K. Makiha (Nagoya Univ., Japan)	<Room C> (17:05-17:25) Tup-C06OC F. Fracassi (Univ. of Bari, Italy) "Investigation of atmospheric pressure plasma-enhanced chemical vapor deposition from methylsiloxane precursors"		
<Room C> (17:05-17:50) S. Iijima (Meijo Univ., Japan) "Nano carbon materials: science and applications"		<Room A> (17:05-17:25) Tup-A06OA N. Nishizawa (Nagoya Univ., Japan) "Ultrafast near-infrared spectroscopy using fiber laser based wavelength tunable narrow-linewidth source"	<Room B> (17:05-17:25) Tup-B06OB Y. Kawai (Nagoya Univ., Japan) "Enhancement of growth rate in GaN homoepitaxy by plasma-assisted molecular beam epitaxy using high-density nitrogen radical source"	(17:25-17:45) Tup-C07OC W. Diono (Nagoya Univ., Japan) "Direct formation of composite hollow nanofibers from polymer by electrospinning"			
(18:00-19:30) Welcome Party [Noyori Conference Hall, Nagoya University]							

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JAN 30 (Wed)					
(9:10-) Registration					
Plasma Science 3 Deposition and Modification of Thin Film Chair: H. Kondo (Nagoya Univ., Japan) <Room A>	(9:20-9:45) Invited Lecture Wea-A011A J. Duh (National Tsing-Hua Univ., Taiwan) "From nanocomposite nitride to novel thin film metallic glass"	Nitride Semiconductors 3 Optical Devices Chair: E. Monroy (CEA-Grenoble, France) <Room B>	(9:20-9:45) Invited Lecture Wea-B011B M. Pristovsek (Univ. of Cambridge, UK) "Low-cost high-efficiency GaN LEDs grown on 6-inch silicon"	Nanomaterials 3 Nanoparticles/Nanowires/Nanorods Chair: T. Nozaki (Tokyo Inst. of Tech., Japan) <Room C>	(9:20-9:45) Invited Lecture Wea-C011C C. Liu (Tianjin Univ, China) "Fabrication of metallic nano particles and nano composites via glow discharge plasma reduction: Current status and perspective"
	(9:45-10:05) Wea-A020A W. Song (The Univ. of Tokyo, Japan) "Oxidation kinetics of Ge by oxygen radicals"		(9:45-10:05) Wea-B020B T. Fujita (Panasonic Corporation, Japan) "Design of light-extracting texture and anisotropic dry etching of m-plane GaN LED"		(9:45-10:05) Wea-C020C K. Koga (Kyushu Univ., Japan) "Single particle trapping in plasmas using laser for studying interaction between a fine particle and palsams"
	(10:05-10:25) Wea-A030A H. Yamada (Diamond Research Lab. AIST, Japan) "Uniformity of the growth of single-crystal diamond wafers over inch size area by using reactive microwave plasma CVD"		(10:05-10:25) Wea-B030B S. Kim (Korea Photonics Tech. Inst. (KOPTI), Korea) "High efficiency InGaN light-emitting diodes by using air void embedded SiO ₂ mask template"		(10:05-10:25) Wea-C030C M. H. Mamat (Univ. Teknologi MARA, Malaysia) "Fabrication of high performance ZnO nanorod array-based UV photoconductive sensor by RF magnetron sputtering at different oxygen flow rates"
(10:25-10:45) Break		(10:25-10:45) Break		(10:25-10:45) Break	
Interdisciplinary 1 Advanced Carbon Materials Chair: Y. Suda (Toyoashi Univ. of Tech., Japan) <Room A>	(10:45-11:15) Keynote Lecture Wea-A04KD Y. Lee (Sungkyunkwan Univ., Korea) "Observing graphene grain boundary by optical microscopy"				
	(11:15-11:40) Invited Lecture Wea-A051D S. Yamasaki (AIST, Japan) "Diamond film growth and electronic devices"				
	(11:40-12:00) Wea-A060D K. Higuchi (Nagoya Univ., Japan) "High-mobility carbon nanotube thin-film transistors fabricated on plastic film with flexographic printing technique"				
(12:00-13:00) Lunch					
(13:00-14:30) Poster Session 2					
Industry-Academia Government Collaboration1 The Innovation Management Chair: M. Sekine (Nagoya Univ., Japan) <Room A>	(14:30-15:10) Keynote Lecture Wep-A01KE S. Fujimura (Tokyo Inst. of Tech., Japan) "Management of technology for forming a global innovation base and developing human resources"				
	(15:10-15:40) Keynote Lecture Wep-A02KE J. De Boeck (IMEC, Belgium) "Open innovation in nano-electronics through a global industrial partnership"				
	(15:40-16:10) Keynote Lecture Wep-A03KE E. Yamaguchi (Doshisha Univ., Japan) "Three types of breakthrough innovations for creating future industries"				
	(16:10-16:40) Keynote Lecture Wep-A04KE P. Feraboli (Automobili Lamborghini Laboratory at the Univ. of Washington, USA) "Conducting industrial R&D in academia: Challenges and opportunities"				
(16:40-16:50) Break					
Industry-Academia Government Collaboration2 Chair: S. Fujimura (Tokyo Inst. of Tech., Japan) <Room A>	(16:50-18:20) Panel Discussion How We Fire up the Innovation Engine? -Towards the Establishment of Global Innovation Cluster-				
	=MODERATOR= S. Fujimura (Tokyo Inst. of Tech., Japan) =PANELIST= J. De Boeck (IMEC, Belgium) P. Feraboli (Automobili Lamborghini Laboratory at the Univ. of Washington, USA) Y. Kanazawa (Mitsubishi UFJ Morgan Stanley Securities Co., Ltd., Japan) M. Kawaguchi (Arthur D. Little (Japan) Inc., Japan) E. Yamaguchi (Doshisha Univ., Japan) M. Hori (Nagoya Univ., Japan)				
(19:00-20:30) Banquet 【South Cafeteria, Nagoya University】					

Simultaneous Interpretation

Registration fee: FREE

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JAN 31 (Thu)					
(9:10-) Registration					
Plasma Science 4 Etching Process Tha-A01A Chair: L. Overzet (The Univ. of Texas at Dallas, USA) <Room A>	(9:20-9:45) Invited Lecture Tha-A02OA A. Eppler (Lam Research Corporation, USA) "Pulsed plasma applications in etch"	Nitride Semiconductors 4 Defect Analysis Chair: B. Daudin (CEA-Grenoble, France) <Room B>	(9:20-9:45) Invited Lecture Tha-B01B P. Ruterana (CIMAP UMR 6252 CNRS, ENSICAEN, CEA, France) "Mechanisms of damage formation during Rare Earth ion implantation in nitride semiconductors"	Nanomaterials 4 Surface Modification/Surface Functionalization Chair: M. Shima (Gifu Univ., Japan) <Room C>	(9:20-9:45) Invited Lecture Tha-C01C J. Cheng (IBM Almaden Research Center, USA) "Extending patterning capability using directed self-assembly"
	(9:45-10:05) Tha-A03OA S. Kumagai (Toyota Technological Inst., Japan) "3D wiring of vertically etched photo cell islands for high voltage generation"		(9:45-10:05) Tha-B02OB A. Koizumi (Osaka Univ., Japan) "Luminescence properties of Eu-doped GaN grown by organometallic vapor phase epitaxy using a new Eu precursor bis(n-propyltetramethylcyclopentadienyl) europium"		(9:45-10:05) Tha-C02OC E. Yang (Shizuoka Univ., Japan) "Enhanced surface functionalization of graphite-encapsulated nanoparticles by RF plasma with Pulsed-biasing powder blowing method"
	(10:05-10:25) Tha-A03OA R. Kometani (Nagoya Univ., Japan) "High temperature plasma etching of GaN"		(10:05-10:25) Tha-B03OB H. Nykanen (Aalto Univ., Finland) "Degradation of optical properties of epitaxial GaN induced by vacancy activation under low energy electron beam irradiation"		(10:05-10:25) Tha-C03OC W. Kuo (National Taiwan Univ. of Science and Tech., Taiwan) "Surface modification using zwitterionic and PEG based copolymers to improve hemocompatibility"
(10:25-10:45) Break		(10:25-10:45) Break		(10:25-10:45) Break	
Plasma Science 5 PlasmaBio and Medicine Tha-A04A Chair: A. Mizuno (Toyohashi Univ. of Tech., Japan) <Room A>	(10:45-11:10) Invited Lecture Tha-A05OA A. Fridman (Drexel Univ., USA) "Plasma Medicine: fundamental physical and biochemical mechanisms of direct plasma interaction with living tissues."	Nitride Semiconductors 5 Electron Devices Chair: Y. Nanishi (Ritsumeikan Univ., Japan / Seoul National Univ., Korea) <Room B>	(10:45-11:10) Invited Lecture Tha-B04IB T. Fujiwara (ROHM Co., Ltd., Japan) "Plasma-process on GaN-based field-effect transistors"	Nanomaterials 5 Functional NanoMaterials Chair: H. Sato (Nagoya Inst. of Tech., Japan) <Room C>	(10:45-11:10) Invited Lecture Tha-C04IC H. Kwon (EMPA, Switzerland) "Functionally graded dual-nanoparticle-reinforced metal matrix composites"
	(11:10-11:30) Tha-A06OA P. Favia (Inst. For Inorganic Methodologies & Plasmas (IMIP)-CNR, Italy) "Surface modification of 3D porous scaffolds for Tissue Engineering by means of different plasma processes"		(11:10-11:30) Tha-B05OB D. C. Peter Raj (Nagoya Inst. of Tech., Japan) "Fabrication of AlGaIn/GaN HEMTs on 200 mm Si (111) substrate"		(11:10-11:30) Tha-C05OC B. Liaw (National Taiwan Univ. of Science and Tech., Taiwan) "Synthesis of high index facets nanoparticles for cholesterol sensing"
	(11:30-11:50) Tha-A06OA S. Maruyama (Nagoya Univ., Japan) "Potential of adipose tissue-derived stem cells and low temperature physical plasma for use in regenerative medicine"		(11:30-11:50) Tha-B06OB S. Ozaki (Fujitsu Laboratories Ltd., Japan) "Effect of ALD method on threshold voltage shift in AlGaIn/GaN MIS-HEMTs"		(11:30-11:50) Tha-C06OC M. A. Bratescu (Nagoya Univ., Japan) "Graphene decorated with gold bimetallic nanoparticles in solution plasma"
(11:50-13:00) Lunch					
(13:00-14:30) Poster Session 3					
Interdisciplinary 2 Advanced Nitride Semiconductors Thp-A01KD Chair: Chair: T. Kachi (Toyota Central R&D Labs., Inc., Japan) <Room A>	(14:30-15:00) Keynote Lecture Thp-A01KD N. Grandjean (EPFL, Switzerland) "Advanced nitride semiconductors"				
	(15:00-15:25) Invited Lecture Thp-A02ID B. Daudin (CEA-Grenoble, France) "AlGaIn and InGaIn Nanowire heterostructures grown by plasma-assisted molecular beam epitaxy"				
	(15:25-15:50) Invited Lecture Thp-A03ID H. Fujioka (Inst. of Industrial Science, The Univ. of Tokyo, Japan) "Characteristics of GaN devices prepared by pulsed sputtering"				
	(15:50-16:15) Invited Lecture Thp-A04ID T. Kikkawa (FUJITSU LABORATORIES LTD., Japan) "GaN HEMT for high frequency amplifier and power conversion"				
(16:15-16:40) Invited Lecture Thp-A05ID K. Chen (The Hong Kong Univ. of Science and Tech., China) "Device technology for GaN mixed-signal integrated circuits"					
(16:40-17:00) Break					
Interdisciplinary 3 Perspective of Nitride Semiconductors - The Role of Plasma Science and Nano Technology - Chair: A. Wakejima (Nagoya Inst. of Tech., Japan) <Room A>	(17:00-18:15) Panel Discussion =MODERATOR= O. Oda (Nagoya Inst. of Tech., Japan) =PANELIST= K. Chen (The Hong Kong Univ. of Science and Tech., China) B. Daudin (CEA Grenoble, France) H. Fujioka (Inst. of Industrial Science, The Univ. of Tokyo, Japan) N. Grandjean (EPFL, Switzerland) H. Kano (NU EcoEngineering CO., LTD., JAPAN) T. Kikkawa (FUJITSU LABORATORIES LTD., Japan) I. Lee (Chonbuk National Univ., Korea) Y. Nanishi (Ritsumeikan Univ., Japan-Seoul National Univ., Korea) M. Pristovsek (Univ. of Cambridge, UK)				

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FEB 1 (Fri)					
(9:10-) Registration					
Plasma Science 6 Emerging Plasma Technology Chair: N. Ohno (Nagoya Univ., Japan) <Room A>	(9:20-9:45) Invited Lecture Fra-A011A M. C. M. van de Sanden (Dutch Inst. for Fundamental Energy Research, The Netherlands) "Power efficient plasma activation of CO ₂ "	Nitride Semiconductors 6 Nano Structure Advanced Processing Chair: W. Walukiewicz (Lawrence Berkeley National Lab., USA) <Room B>	(9:20-9:45) Invited Lecture Fra-B011B E. Monroy (CEA-Grenoble, France) "Single GaN-based nanowires for photodetection and sensing applications"	Nanomaterials 6 Energy Generation / Storage Devices Chair: Y. Nishikitani (JX Nippon Oil & Energy Corporation, Japan) <Room C>	(9:20-9:45) Invited Lecture Fra-C011C M. Nakayama (Nagoya Inst. of Tech., Japan) "Fabrication and electrochemical property of all solid-state Li polymer rechargeable battery"
	(9:45-10:05) Fra-A020A E. Stamate (Technical Univ. of Denmark, Denmark) "Plasma assisted RF sputtering of lithium phosphorous oxynitride thin films for all-solid-state lithium ion batteries"		(9:45-10:05) Fra-B020B W. Khalfaoui (Univ. Francois RABELAIS de Tours, France) "GaN surface protection during RTA annealing with GaON cap-layer"		(9:50-10:05) Fra-C020C M. Seki (The Univ. of Tokyo, Japan) "Energy conversion between exciton and plasmon in ZnO quantum wells and Ag nanoparticles"
	(10:05-10:25) Fra-A030A S. Cho (Tohoku Univ., Japan) "Control of plasma potential and fullerene clustering for high yield synthesis of nitrogen endohedral fullerene"		(10:05-10:25) Fra-B030B Y. Hua (National Cheng Kung Univ., Taiwan) "GaN schottky barrier photodetectors with a lattice-matched Al _{0.82} In _{0.18} N intermediate layer"		(10:05-10:25) Fra-C030C G. D. Temmerman (Dutch Inst. For Fundamental Energy Research, Netherlands) "Efficient nanostructuring of metals by low energy helium ions for advanced energy materials"
Late News Plasma Science Chair: N. Ohno (Nagoya Univ., Japan) <Room A>	(10:25-10:45) Fra-A040LNA I. Suhariadi (Kyushu University) "Effects of nitrogen on crystal growth of sputter-deposited ZnO films for transparent conducting oxide"	Late News Nitride Semiconductors Chair: T. Kubo (Nagoya Inst. of Tech., Japan) <Room B>	(10:25-10:45) Fra-B040LNB J. Birch (Linköping Univ.) "High quality GaN nanorods grown by liquid- target reactive magnetron sputter epitaxy"	Late News Nanomaterials Chair: M. Hiramatsu (Meijo Univ., Japan) <Room C>	(10:25-10:45) Fra-C040NC N. Min (Korea Univ.) "Multi-walled carbon nanotube-mediated enhancement of photogenerated electron transport in a plasma-treated MWCNTs/TiO ₂ nanopowders hybrid electrode formed by one- step spray coating for dye-sensitized solar cells"
(10:50-12:20) Poster Session 4					
(12:20-13:30) Lunch					
Energy Sesssion 1 Energy Revolution Chair: M. Hiramatsu (Meijo Univ., Japan) G. Kalita (Nagoya Inst. of Tech., Japan) <Room A>	(13:30-14:00) Keynote Lecture Frp-A01KD T. Nozaki (Tokyo Inst. of Tech., Japan) "Plasma catalysis for next generation C ₁ -Chemistry"				
	(14:00-14:25) Invited Lecture Frp-A02ID Y. Nishikitani (JX Nippon Oil & Energy Corporation, Japan) "Recent developments and future prospects for organic solar cells"				
	(14:25-14:50) Invited Lecture Frp-A03ID I. Mukhopadhyay (Pandit Deendayal Petroleum Univ., India) "Recent development in solar power in Gujarat: case study for large power plant and solar city"				
	(14:50-15:20) Keynote Lecture Frp-A04KD L. Shaw (Illinois Inst. of Tech., USA) "Energy storage enabled by nanomaterials and advanced processing"				
(15:20-15:30) Break					
Energy Sesssion 2 Energy Revolution Chair: T. Nozaki (Tokyo Inst. of Tech., Japan) <Room A>	(15:30-16:45) Panel Discussion Towards Smart Enegy Cities =MODERATOR= T. Nozaki (Tokyo Inst. of Tech., Japan) =PANELIST= T. Matsumoto (Osaka Gas Co., Ltd., Japan) I. Mukhopadhyay (Pandit Deendayal Petroleum Univ., India) M. Nakayama (Nagoya Inst. of Tech., Japan) Y. Nishikitani (JX Nippon Oil & Energy Corporation, Japan) L. Shaw (Illinois Inst. of Tech., USA) W. Walukiewicz (Lawrence Berkeley National Lab., USA)				
	Award (16:45-16:55) Award Presenter: M. Hori (ISPlasma2013 Organizing Committee Chairperson) Announcer: A. Wakahara (ISPlasma2013 Program Committee Chairperson)				
(16:55-17:00) Closing					