

March 2(Sun.)	March 3(Mon.)						
	(8:30-) Registration						
	Opening/ Plenary Lecture  Chair : Mineo Hiramatsu [Meijo University]	(9:20-9:35) <Opening Address> Hirotaka Toyoda [ISPlasma2014/IC-PLANTS2014 Organizing Committee Chairperson]  (9:35-10:15)<03aA01PL> Plenary Lecture Makoto Konagai [Tokyo Institute of Technology] "Challenges for Developing Innovative Solar Cells - Towards Carbon Free Society"					
	(10:15-10:30) Break						
	Keynote Lecture  Chair : Masafumi Ito [Meijo University]	(10:30-11:05)<03aA02K> Keynote Lecture : W. G. (Bill) Graham [Queen's University Belfast] "The Physics, Chemistry and Applications of Plasmas Created in Liquids."  (11:05-11:40)<03aA03K> Keynote Lecture : Hiromichi Ohashi [AIST] "Possibility of Future Power Devices toward New Generation Power Electronics"  (11:40-12:15)<03aA04K> Keynote Lecture : Yoshitaka Okada [The University of Tokyo] "High-Efficiency Quantum Dot Solar Cells: Progress and Challenges"					
(12:30-) Registration	(12:15-13:10) Lunch						
Tutorial Plasma Science  Chair : Minoru Sasaki [Toyota Technological Institute]	(13:00-13:45) Uwe Czarnetzki [Ruhr-University Bochum, Germany] "Diagnostics of Low-Temperature Plasmas"  (13:45-14:30) Masaaki Nagatsu [Shizuoka University] "Plasma Surface Functionalization of Nano-sized Materials for Biomedical Application"	(13:10-14:40) Poster Session 1					
	Plasma Science1  Chair : Koichi Sasaki [Hokkaido University]	(14:40-15:05)<03pB05I> Invited Lecture : Wonho Choe [KAIST] "Non-thermal Atmospheric Pressure Plasmas at Different Driving Frequency in the RF Range"  (15:05-15:30)<03pB06I> Invited Lecture : Juergen Roepcke [Leibniz Institute for Plasma Science and Technology (INP Greifswald)] "On Recent Progress in Studying Chemical Phenomena and Surface Interactions in Plasmas Using Infrared Absorption Techniques"  (15:30-15:45)<03pB07O> Keiichiro Urabe [The University of Tokyo] "Production and Relaxation Processes of Metastable Helium Atoms in Cryoplasmas between 5 K and Room Temperature"  (15:45-16:00)<03pB08O> Agnes Granier [CNRS] "In situ Investigation of the Effect the Wall Nature on O atom Recombination Probability in Low Pressure O <sub>2</sub> /HMDSO/TTIP Plasmas"  (16:00-16:15)<03pB09O> Kazunori Koga [Kyushu University] "Time evolution of Argon Metastable Density in Reactive Dusty Plasmas"	Nitride Semiconductors1  Chair : Yoshihiro Kangawa [Kyushu University]	(14:40-15:05)<03pC05I> Invited Lecture : Fukuyama Hiroyuki [Tohoku University] "AlN Layer Growth Using Ga-Al Flux and Its Thermodynamic Principle"  (15:05-15:20)<03pC06O> Chi-Hung Lin [NTT Basic Research Laboratories] "n-face GaN (000-1) Films Grown by Group-III Source Flow-rate Modulation Epitaxy"  (15:20-15:35)<03pC07O> Taiji Yamamoto [Meijo University] "Analysis of GaN/GaN superlattices on GaN template during growth by in-situ X-ray diffraction"  (15:35-15:50)<03pC08O> Ji young Kim [Korea Maritime and Ocean University] "AlGaN Epitaxial Layers Grown by Hydride Vapor Phase Epitaxy"  (15:50-16:05)<03pC09O> Yoshinobu Watanabe [Meijo University] "Surface treatment of sublimation-grown AlN substrate for homo-epitaxial growth by HVPE"	Nanomaterials 1  Chair : Katsuya Teshima [Shins hu University]	(14:40-15:05)<03pD05I> Invited Lecture : Mauricio Terrones [Shinshu University] "Novel Nanocarbons: Defective Graphenes, Nanoribbons with Atomically Smooth Edges and Graphene-Nanotube Hybrid Structures"  (15:05-15:30)<03pD06O> Invited Lecture : Do-Geun Kim [KIMS] "Ultra Flexible Metal Embedded Transparent Electrode for Foldable Organic Devices"  (15:30-15:55)<03pD07O> Invited Lecture : Katsumi Kaneko [Shinshu University] "In-Pore Superhigh Pressure-Aided Materials Synthesis"  (16:55-17:10)<03pD08O> Hiroyao Shimoda [Nagoya University] "Control of Edge and Surface Oxidation of Carbon Nanowalls by Argon Ion Irradiation"	
	(14:30-14:40) Break	(16:05-16:25) Break					
Tutorial Nitride Semiconducto rs  Chair : Osamu Oda [Nagoya University]	(14:40-15:25) Wladyslaw Walukiewicz [Solar Energy Materials Research Group] "Semiconductor Band Structure Engineering for Solar Power Conversion Devices"  (15:25-16:10) Satoshi Kamiyama [Meijo University] "Technologies of nitride-based LEDs"	Nitride Semiconducto rs2  Chair : Wladysla w Walukiewicz [Solar Energy Materials Research Group]					
		(16:35-17:00)<03pB010I> Invited Lecture : Koichi Sasaki [Hokkaido University] "A Simple Method for Producing Standing Sonoplasmas"  (17:00-17:25)<03pB11I> Invited Lecture : Jong-Shinn Wu [National Chiao Tung University] "Hybrid Simulation of Gas Discharge and Gas Flow with Parallel Computing"  (17:25-17:40)<03pB12O> Anil Pandey [Chubu University] "Simplified Analysis and FDTD Simulation of Curling Probe"	(16:25-16:50)<03pC10I> Invited Lecture : Fumitoshi Fukuyo [Hamamatsu Photonics K.K.] "Improvement of Light Extraction Efficiency with Periodic Light-extraction Structures on Sapphire Substrate for Electron-beam-pumped Deep-ultraviolet Light Sources"  (16:50-17:05)<03pC11O> Mami Ishiguro [Meijo University] "Improvement of photosensitivity in heterostructure-field-effect-transistor type photosensors with a p-GaN gate"  (17:05-17:20)<03pC12O> Yi Lu [Nagoya University] "Study on a novel radical-enhanced metalorganic chemical vapor deposition (REMOCVD) for GaN epitaxial growth"  (17:20-17:35)<03pC13O> Keiya Kozaki [Meijo University] "Raelization of M-plane GaN Thick Films Grown on Submicron Patterned Groove-GaN Substrate"  (17:35-17:50)<03pC14O> Seunga Lee [Nagoya University] "Effect of piezoelectric field on carrier dynamics in InGaN-based solar cells"	Nanomaterials 2  Chair : Mauricio Terrones [Shin hu University]	(16:10-16:30) Break		
Tutorial Nanomaterials  Chair : Seiichi Miyazaki [Nagoya University]	(16:20-17:05) Akira Toriumi [The University of Tokyo] "Technology Outlook for Advanced CMOS and Beyond-Si Devices"  (17:05-17:50) Shefford P. Baker [Cornell University] "Nanotwins and stability of physical-vapor-deposited thin films"	(16:45-17:00)<03pD09O> Agnes Granier [MN Univerite de Nantes, CNRS] "Growth Control of Carbon Nanostructures using Cold Plasma Processes"  (17:00-17:00)<03pD10O> Wenchoo Peng [The University of Hong Kong] "MoS <sub>2</sub> /Graphene Nanosheets with CdS Nanoparticles as A Visible Light Driven Photocatalyst for the Reduction and Detoxification of 4-Nitrophenol"  (17:00-17:15)<03pD11O> Naoki Ninomiya [Yokohama National University] "Layer-by-layer Etching of MoS <sub>2</sub> Flakes during Etching Process for Fabrication of MoS <sub>2</sub> Transistors"  (17:15-17:30)<03pD12O> Yong-Cin Chen [National Taiwan University of Science and Technology] "Preparation of Nano-cubic Cu <sub>2</sub> O/Platinum Core-Shelled Nanoparticles for the Electrochemical Applications"					
	(18:00-19:30) Welcome Party						

## March 4(Tue. )

(9:10-) Registration								
Plasma Science 3 Emerging plasma Technology Chair: Jennifer H Shin [KAIST]	(9:20-9:45)<04aB01> Invited Lecture : Hidekuni Taka[ Kagawa University] "Patterable Atmospheric-Pressure Plasma Jet Array Generated by an Integrated Micro Microfluidic Device"	Nitride Semiconductors3 Nano structures and charactarizations Chair : Koh Matsumoto [Taiyo Nippon Sanso Corp.]	(9:20-9:45)<04aC01> Invited Lecture : Shunsuke Ishizawa[Sophia University] "Structural Control and Photonic Characteristics of Bottom-up Grown InGaN Based-nanocolumns"	Nanomaterials 3 Nanocomposites Chair : Yuichi Setsuhara [Osaka University]	(9:20-9:45)<04aD01> Invited Lecture : Jenq-Gong Duh[National Tsing Hua University] "Exploitation of Bio-inspired Thin Film Composites"			
	(9:45-10:00)<04aB02O> Tatuo Ishijima[Kanazawa University] "Enhancement of OH radical generation rate in aqueous solution by microwave-excited bubble plasma production"		(9:45-10:00)<04aC02O> Shogo Ito[Aichi Institute of Technology] "Nature of Yellow Luminescence Band in High Quality GaN"		(9:45-10:00)<04aD02O> Jindrich Musil[University of West Bohemia] "Advanced Hard Nanocomposite Coatings with Unique Properties"			
	(10:00-10:15)<04aB03O> Hiromasa Tanaka[Nagoya University] "Plasma-activated medium downregulated signaling pathways that control proliferation and survival in glioblastoma brain tumor cells"		(10:00-10:15)<04aC03O> Ryota Matsumura[Toyohashi University of Technology] "Eu concentration dependence of optical properties for Eu and Mg codoped GaN"		(10:00-10:15)<04aD03O> Chih-Yang Wang[National Taiwan University of Science and Technology] "Preparation of Nanocomposite Membranes with Antibacterial properties by Plasma Surface Modification"			
	(10:15-10:30)<04aB04O> Yui Hayashi[Nagoya University] "Peptide Synthesis from Amino Acid Induced by Pulsed Discharge Plasma over Aqueous Solution at Pressurized Argon"		(10:15-10:45) Break		(10:30-10:45) Break			
	(10:30-10:45) Break							
Topical Session 1 Plasma Science Plasma Bio & Medicine Chair: Masaaki Nagatsu [Shizuoka University]	<p>(10:45-11:20)&lt;04aA05K&gt; Keynote Lecture : Masaru Hori [Nagoya University] "Challenge to Plasma Medical Science towards the Fourth Treatment of Cancers"</p> <p>(11:20-11:45) &lt;04aA06I&gt; Invited Lecture : Jennifer H Shin [KAIST] "Cellular Property Regulation for Anti-cancer Treatment by Atmospheric Pressure Plasma"</p> <p>(11:45-12:00)&lt;04aA07O&gt; Shota Sasaki[Tohoku University] "Effects of Plasma Diffusion Distance on Gene Transfection"</p>							
	(12:00-13:00) Lunch							
	(13:00-14:30) Poster Session 2							
Industry-Academia-Collaboration 1 Chair: Makoto Sekine [Nagoya University]	<p>(14:30-15:05)&lt;04pA08K&gt; Keynote Lecture: Eiichi Yamaguchi[Doshisha University] "Why has Japan Lost International Competitiveness? Effects of Small Business Innovation Research Programs on Creating New Science-based Industries"</p> <p>(15:05-15:40)&lt;04pA09K&gt; Keynote Lecture: Shuzo Fujimura[Tokyo Institute of Technology] "Necessity of Scientific Research in Private Entity"</p> <p>(15:40-16:15)&lt;04pA10K&gt; Keynote Lecture: Matthias Frey[Embassy of Switzerland] "Innovation in Switzerland: International Collaboration and Exchange"</p> <p>16:15-16:50)&lt;04pA11K&gt; Keynote Lecture: Richard Bosmans[Nikon and Essilor International Joint Research Center] "A Unique Example of Research Partnership between Two Leading Companies in the Optics Industry"</p>							
	(16:45-17:00) Break							
Industry-Academia-Collaboration 2	<p>(17:00-18:30) Panel Discussion Moderator Eiichi Yamaguchi[Doshisha University] Panelist Shuzo Fujimura[Tokyo Institute of Technology] Matthias Frey[Embassy of Switzerland] Richard Bosmans[Nikon and Essilor International Joint Research Center] Hisashi Tsukamoto [CONNEXX SYSTEMS Corporation] Jeon Geon Han[Sungkyunkwan University]</p>							
	(18:30-20:00) Banquet							

## March 5 (Wed. )

(9:10-) Registration					
Plasma Science 4 Chair: Xiodong Pi [Zhejiang University]	(9:20-9:45) <05aB01> Invited Lecture : Masaharu Shiratani[Kyushu University] "Characteristics of a-Si:H Cells Fabricated by Amplitude Modulated VHF Discharges"  (9:45-10:00) <05aB03O> Katsuori Maekawa[Nagoya University] "Selective Crystallization and Metallization of a-Ge:H Thin Films by Pt-coating and Exposing to Remote H2 Plasma"  (10:00-10:15) <05aB04O> Yuichi Setsuhara[Osaka University] "Properties of ICP-Enhanced Reactive Sputter Discharge for Formation of Advanced Semiconductor Films"  (10:15-10:30) Break	Nitride Semiconductors 4 New device applications Chair: Hiroshi Amano [Nagoya University]	(9:20-9:45) <05aC01> Invited Lecture : Tien-chang Lu [National Chiao Tung University] "GaN-based Optoelectronics with Micro/Nano-scale Architectures"  (9:45-10:00) <05aC02O> Kezutaka Niigata[The University of Tokushima] "Temperature Dependence of pH Sensor on AlGaN/GaN Heterostructure"  (10:00-10:15) <05aC03O> Kazuhiro Nakahama[Mie University] "Optimization of barrier height in AlGaN multiple quantum wells for UV emission excited by electron beam"  (10:15-10:30) <05aC04O> Kazuki Tsuchiyama[Toyohashi University of Technology] "Evaluation of Optical Property in Various InGaN Micro-LED Size ( =470nm)	Nanomaterials 4 Functional Nanomaterials Chair : Mohan Sankaran [Case Western Reserve University]	(9:20-9:45)<05aD01> Invited Lecture : Xingyu Jiang [The Chinese Academy of Sciences] "Gold Nanoparticles-Based Plasmonics for Medical Diagnostic Assays"  (9:45-10:00)<05aD02O> Indrajit Mukhopadhyay[Pandit Deendayal Petroleum University] "Influence of interfacial charge transfer resistance and double layer capacitance on the conducting properties of electropolymerized Polyaniline film"  (10:00-10:15)<05aD03O> Mihai Alexandru Colan[Shizuoka University] "Molecule immobilization on amine enriched zinc oxide by plasma processing"
					(10:15-10:35) Break
Plasma Science 5 Chair: Tomohiro Nozaki[Tokyo Institute of Technology]	(10:30-10:50) Break  (10:50-11:15) <05aB05I> Invited Lecture : Xiaodong Pi [ Zhejiang University] "Nonthermal Plasma Synthesis of Hyperdoped Silicon Nanocrystals"  (11:15-11:30)<05aB06O> Tomoki Amano[Nagoya University] "Electro catalytic properties of Pt-supported nanographene synthesis using in-liquid plasma"  (11:30-11:45)<05aB07O> Iuliana Motrescu[Shizuoka University] "The role of oxygen introduced in the He gas flow of ultrafine capillary plasma jet for hydroxyl groups patterning"	Nitride Semiconductors 5 Light emitting diodes Chair: Hideto Miyake [Mie University]	(10:50-11:15)<05aC05O> Invited Lecture : Masaaki Onomura [TOSHIBA America Electronic Components, Inc.] "Highly Efficient GaN-based LEDs Grown on 8-inch Si Substrates"  (11:15-11:30)<05aC06O> Shunsuke Okada[Mie University] "Fabrication of InGaN MQWs on non-polar GaN substrates"  (11:30-11:45)<05aC07O> Shunsuke Kawai[Meijo University] "High reflective and low resistive silver electrode on p-GaN"	Nanomaterials 5 Porous Materials Chair : Toru Ujihara [Nagoya University] Nobuyuki Zetsu [Shinshu University]	(10:35-11:00)<05aD04I> Invited Lecture : Yoko Kumai [Toyota Central R&D Labs., INC.] "Characteristics and Applications of Layered Polysilane (Si6H6) Anode for Lithium Ion Batteries"  (11:00-11:15) <05aD05O> Indrajit Mukhopadhyay[Pandit Deendayal Petroleum University] "Electrodeposition of CdTe from ionic liquid bath at 80 oC: insight of nucleation and growth mechanism"  (11:15-11:40)<05aD06O> Invited Lecture : Toru Setoyama[Mitsubishi Chemical Corporation] "Various Potentialities of CHA-type Zeolite as Functional Inorganic Materials"
					(11:45-13:00) Lunch
					(13:00-14:30) Poster Session 3
Topical Session 2 Solid State Lighting Chair: Tetsuya Takeuchi[Meijo University]	(14:30-15:05)<05pA08K> Keynote Lecture: Hiroshi Fujioka[The University of Tokyo] "Preparation of Nitride Devices by Plasma Processing"  (15:05-15:30)<05pA09I> Invited Lecture: Jeffrey Y. Tsao [Sandia National Laboratories] "Solid-State Lighting: Toward Smart and Ultra-Efficient Materials, Devices, Lamps and Systems"  (15:30-15:55) <05pA10I> Invited Lecture: Kiyoshi Itatani [Sophia University] "Morphological Control of Eu <sup>2+</sup> -doped Nitride Phosphors by Carbothermal Reduction / Nitridation of Spray-pyrolyzed Powder and Their Luminescence Properties"  (15:55-16:20) <05pA11I> Invited Lecture : Jong-In Shim [Hanyang University] "On the Origin of Efficiency Droop in Light-Emitting Diodes"  (16:20-16:45)<05pA12I> Invited Lecture : Claude Weisbuch [University of California, Santa Barbara] "Auger Effect in Nitride-based Blue LEDs and Its Identification by Vacuum Electron Spectroscopy"				
					(16:45-17:00) Break
Topical Session 3 Nitride Semiconductors Prospects of Solid State Lighting	(17:00-18:30) Panel Discussion Moderator Satoshi Kamiyama[Meijo University] Panelist Jong-In Shim [Hanyang University] Claude Weisbuch [University of California, Santa Barbara] Masaaki Onomura [TOSHIBA America Electronic Components, Inc.] Hiroshi Fujioka [The University of Tokyo] Tien-Chang Lu [National Chiao Tung University] Jeffrey Y. Tsao [Sandia National Laboratories] Kiyoshi Itatani [Sophia University]				

## March 6 (Thu. )

(9:10-) Registration					
Plasma Science 6 Chair: Hiroki Kondo [Nagoya University]	(9:20-9:45) <06aB01> Invited Lecture : Masaru Izawa [Hitachi Hi-Technologies Corporation] "Etching Technologies for 3D-Transistor and Emerging Devices"  (9:45-10:00) <06aB02O> Yudai Miyawaki[Nagoya University] "Observation of dangling bonds in Silicon nitride films during exposure of F atoms at down-flow of CF4 plasmas using Real-time / in-situ Electron Spin Resonance"  (10:00-10:15) <06aB03O> Minoru Sasaki[Toyota Technological Institute] "Delay Masking Process Using UV Cured Resist Layer Combined with Deep Reactive Ion Etching for Multiple Height Microstructures"	Nitride Semiconductors 6 Chair: Akio Wakejima [Nagoya Institute of Technology]	(9:20-9:45) <06aC01> Invited Lecture : Yvon Cordier [CNRS - CRHEA] "Uniformities of GaN and AlN Layers Obtained with Ammonia or with RF Source Molecular Beam Epitaxy"  (9:45-10:00) <06aC02O> Joseph J. Freedman[Nagoya Institute of Technology] "Trenched-Gate Al2O3/AlGaN/GaN Normally Off MIS-FET on 8-inch Si with Low Leakage and High Breakdown Voltage"  (10:00-10:15) <06aC03O> Arata Watanabe[Nagoya Institute of Technology] "Characterization of InAlN/GaN High-Electron-Mobility Transistors Grown on Si Substrate"	Nanomaterials 6 Chair: Tatsuru Shirafuji [Osaka City University]	(9:20-9:45)<06aD01> Invited Lecture : Mohan Sankaran[Case Western Reserve University] "Controlling Gas-phase Nucleation Via Microplasma Processes for the Synthesis of Novel Nanoparticle Materials"  (9:45-10:00)<06aD02O> Huei-Yu Chou[National Tsing Hua University] "Pulse-Electrodeposition of Pt and Pt-Ru nanoparticles on CNTs for methanol oxidation"  (10:00-10:15)<06aD03O> Atsushi Ando[Nagoya University] "Spectroscopic analysis of gas-liquid plasma for nanographene synthesis"
Late News Chair: Hiroki Kondo [Nagoya University]	(10:15-10:30) <06aB04OLN> Kai Chieh Hsu[National Tsing Hua University] "The Effect of Doping Al and Ti on Thermo-mechanical Properties of Newly-developed Cu-Zr-Al-Ti Thin Film Metallic Glass"  (10:30-10:45)<06aB04OLN> Abhijit Ray[Pandit Deendayal Petroleum University] "RF-magnetron sputtered Cu doped SnS thin films for enhanced photovoltaic performance"  (10:45-11:00)<06aB05OLN> Minoru Sasaki[Toyota Technological Institute] "MEMS Nozzle for Localized Irradiation of Atmospheric Pressure Plasma Trapping Micro-Samples"	Late News Chair: Akio Wakejima [Nagoya Institute of Technology]	(10:15-10:30)<06aC04OLN> Zheng Sun[Nagoya University] "P-type GaN by Mg-ion Implantation with Pre-Sputter Technique"  (10:30-11:00)Break	Late News Chair: Mineo Hiramatsu [Meijo University]	(10:15-10:30) <06aD04OLN> Joon S. Lee[Durable Hydrophobic Films synthesized by controlling the Plasma Process of simple PECVD]  (10:30-10:45)<06aD05OLN> Chien-Kuo Hsieh[Ming Chi University of Technology] "Oxygen-assisted LPCVD for the low temperature direct growth of Graphitic Nanofibers on FTO glass as a Counter Electrode for Dye-Sensitized Solar Cell"  (10:45-11:00)Break
(11:00-12:30) Poster Session 4					
(12:30-13:30) Lunch					
Topical Session 4 Chair: Masaaki Kuzuhara [University of Fukui]	(13:30-13:40) Introductory Talk : Takaya Miyazaki [Ministry of Economy, Trade and Industry]  (13:40-14:15) <06pA05K> Keynote Lecture : Noriyuki Otsuka [Panasonic Corporation] "Recent Progress in GaN Power Devices"  (14:15-14:40) <06pA06I> Invited Lecture : Yohei Otoki [Hitachi Metals, Ltd.] "Merit and Homework of Using GaN Substrates for Electric Devices in Mass Production"  (14:40-15:05) <06pA07I> Invited Lecture : Isik C. Kizilyalli[Avogy Inc.] "Vertical Power Semiconductor Devices on Bulk GaN Substrates"				
(15:05-15:20) Break					
Topical Session 5 Chair: Masaaki Kuzuhara [University of Fukui]	(15:20-16:50) Panel Discussion Moderator Masaaki Kuzuhara[University of Fukui] Panelist Takashi Nakamura[ROHM Co., Ltd.] Noriyuki Otsuka [Panasonic Corporation] Yohei Otogi [Hitachi Metals, Ltd.] Isik C. Kizilyalli[Avogy Inc.]				
Award	(16:55-17:05) Award Presenter : Hirotaka Toyoda[ISPlasma2014/IC-PLANTS2014 Organizing Committee Chairperson] Announcer: Hiroshi Amano [ISPlasma2014/IC-PLANTS2014 Program Committee Chairperson]				
(17:05-17:20) Closing					