

3/20 (WED)		
Nanomaterials 6	Plasma Science & Technologies 4 Surface and Thin Films	Nitride Semiconductors 5 Plasma and Surface Processing
Chair: Seiichi Hata (Nagoya University) Room C	Chair: Makoto Kambara (The University of Tokyo) Room E	Chair: Makoto Miyoshi (Nagoya Institute of Technology) Room F
9:30-10:00 <20aC01> Invited Lecture Koji Morita National Institute for Materials Science (NIMS) "Fabrication of High Strength Transparent Ceramics through Spark-plasma-sintering (SPS) Method"		9:30-10:00 <20aF01> Invited Lecture Yasuhisa Sano Osaka University "Development of Array-type Plasma Generator for High-throughput Numerically Controlled Processes"
10:00-10:30 <20aC02> Invited Lecture Yoshiaki Nakamura Osaka University "Design of Semiconductor Nanoarchitecture for Thermoelectric Property Control"	10:00-10:15 1216 <20aE02O> Hirotsugu Sugiura "Control of sp ² -C Fraction and Hardness of Amorphous Carbon Films by Formation of Precursor Radicals Depending on a Residence Time" ¹ Hirotsugu Sugiura, ¹ Yasuyuki Ohashi, ¹ Lingyun Jia, ¹ Hiroki Kondo, ¹ Kenji Ishikawa, ¹ Takayoshi Tsutsumi, ¹ Toshio Hayashi, ² Keigo Takeda, ¹ Makoto Sekine and ¹ Masaru Hori ¹ Nagoya University ² Meijo University	10:00-10:30 <20aF02I> Invited Lecture Hideo Aida "Challenges Toward Prospective Precise Polishing Techniques by Fusing Environmental Controlling and Plasma Technology" Nagaoka University of Technology
	10:15-10:30 1160 <20aE03O> Masayuki Nakamura "Plasma diagnostics on TiN Film Deposition using High Power Impulse Magnetron Sputtering" Masayuki Nakamura, Keigo Takeda and Takayuki Ohta Meijo University	
10:30-10:45 1316 <20aC03O> Ryo Nagai "Impact of Boron Doping into Si Quantum Dots with Ge Core on Their Photoluminescence Properties" Ryo Nagai, Shuntaro Fujimori, Takuya Maehara, Katsunori Makihara, Akio Ohta, Mitsuhiisa Ikeda and Seiichi Miyazaki Nagoya University		10:30-10:45 1121 <20aF03O> Shun Suzuki "Resonant Raman Scattering Analyses of the Bi-axial Strain on the Surface of GaN and ZnO Generated by Mechanical Polish" Shun Suzuki, Shun Otake, Hiroyuki Iwata and Nobuhiko Sawaki Aichi Institute of Technology

<p>10:45-11:00 1155 <20aC04O> Chia-Yu NMI Liu "Piezotronics Effect on Photoelectrochemical Water Splitting of Porous ZnO Nanorod Arrays" Chia-Yu Liu and Chuan-Pu Liu Cheng Kung University</p>	<p>10:45-11:00 1289 <20aE05O> Pavel Baroch "Advantages of Reactive HiPIMS for Preparation of Tunable Properties of IGZO Thin Films" Pavel Baroch, Jiri Rezek, Michal Prochazka and Jiri Houska University of West Bohemia</p>	<p>10:45-11:00 1037 <20aF04O> Yue Xu "Study of GaN (0001) Surface Cleaning Using HCl-based Solutions" ¹Yue Xu, ¹Akio Ohta, ¹Mitsuhsisa Ikeda, ¹Katsunori Makihara, ²Noriyuki Taoka, ³Tetsuo Narita, ³Daigo Kikuta, ¹Koji Shiozaki, ¹Tetsu Kachi and ¹Seiichi Miyazaki ¹Nagoya University ²AIST ³Toyota Central R&D Labs., Inc.</p>
<p>11:00-11:15 1282 <20aC05O> Yen-Sheng Lin "Enhanced Optoelectronic Properties of Al Doped ZnO Layers on Flexible Substrate by Optimizing the Distribution of CuO Nano-wire Structures" ¹Yen-Sheng Lin, ¹Jhe-Wei Lai, ²Fadli Rohman and ²Joachim Mayer ¹I-Shou University ²RWTH Aachen University</p>	<p>11:00-11:15 1021 <20aE06O> Yu Chao "Sputtering Synthesis of Dual Phase SnO₂-WO₃ Nanocomposite Films and Their Gas-sensing Behaviors" Yu Chao and Y. C. Liang National Taiwan Ocean University</p>	<p>11:00-11:15 1033 <20aF05O> Atsushi Tanide "The Effects of Hydrogen and Choline Gas onto Sputtering Growth of GaN Films" ^{1,3}Atsushi Tanide, ¹Shohei Nakamura, ^{1,3}Akira Horikoshi, ¹Shigeru Takatsuji, ^{1,3}Motohiro Kohno, ¹Kazuo Kinose, ¹Soichi Nadahara, ²Masazumi Nishikawa, ²Akinori Ebe and ³Kenji Ishikawa ¹Screen Holdings Co., Ltd. ²EMD Corp. ³Nagoya University</p>
<p>11:15-11:30 1020 <20aC06O> Liu Yen-Chen "Sputtering Sythesis of ZnFe₂O₄-TiO₂ Nanorods and Their Photodegradation Ability Toward Organic Dyes" Y.C Liu and Y.C Liang National Taiwan Ocean University</p>		<p>11:15-11:30 1054 <20aF06O> Yasuyuki Kobayashi "Plasma-assisted Molecular Beam Epitaxy Growth of GaN Thin Films on Sapphire Substrates Using h-BN/AlN Buffer Layers" ¹Yasuyuki Kobayashi, ¹Keiichi Nakata, ¹Hideki Nakazawa, ¹Hiroshi Okamoto, ²Masanobu Hiroki and ²Kazuhide Kumakura ¹Hirosaki University ²NTT Basic Research Laboratories</p>

Plenary Lecture

Chair: Masaru Hori (Nagoya University)
Room B

11:45-12:35

<20aB07P>

Plenary Lecture

Maki Kawai

Institute for Molecular Science

"NOVEL FEATURE OF MOLECULES Induced by the Interaction with Substrate"

Lunch Break 12:20-14:00

Topical Session 2**Recent Progress in Plasma Medicine**

Chair: Kenji Ishikawa (Nagoya University)
Room B

14:00-14:30**Invited Lecture**

<20aB08l>

Jean-Michel Pouvesle

CNRS/Universite d'Orleans

"Plasma/Target Interactions in Non-thermal Atmospheric Plasma Biomedical Applications: A Challenge and Key Issue"

14:30-15:00**Invited Lecture**

<20aB09l>

Endre Szili

University of South Australia

"On the Role of Plasma in Biofilm Formation"

15:00-15:30**Invited Lecture**

<20aB10l>

Eun Ha Choi

Kwangwoon University

"Nonthermal Biocompatible Plasma (NBP) Sources and their Applications to Plasma Medicine and Agricultures"

15:30-16:00**Invited Lecture**

<20aB11l>

Emilio Martines

Consorzio RFX

"Interaction of Cold Atmospheric Plasmas with Cell Membranes"

**Invited Lecture
Prof. Riccardo d'Agostino Memorial Session**

Chair: Mineo Hiramatsu (Meijo University)
Room E

**Nitride Semiconductors 6
Optical Devices**

Chair: Tetsuya Takeuchi (Meijo University), Xuelen Wang (AIST)
Room F

16:15-16:45

<20aE12l>

Invited Lecture

Pietro Favia

University of Bari

"Remembering the Contribution of Prof. Riccardo d'Agostino to Plasma Science and Technology"

16:15-16:45

<20aF12l>

Invited Lecture

Satoshi Kamiyama

Meijo University

"Potential of GaInN Multi-quantum-shell (MOS) in Nitride Optoelectronic Devices"

16:45-17:15

<20aE13l>

Invited Lecture

Ta-chin Wei

Chung Yuan Christian University

"T.B.A."

17:15-17:45

<20aE14l>

Invited Lecture

Jean-Michel Pouvesle

CNRS/Universit  d'Orl ans

"Material Processing by Atmospheric Pressure Plasma Jets in Memory of Riccardo D'Agostino"

¹Jean-Michel Pouvesle, ¹Azadeh Valinattajomran,
²C line Vivien, ¹S bastien Dozias and ¹ ric Robert

¹GREMI CNRS / Universit  d'Orl ans²IEMN CNRS / Universit  Lille**17:15-17:30 1131**

<20aF13O>

Cheng-Jie Wang

"InGaN-Based Resonant-Cavity Light-Emitting Diode with Embedded Porous-GaN and Top Dielectric Reflectors"

Cheng-Jie Wang, Sheng-Min Wang, Ting-Wei Chung and Chia-Feng Lin

National Chung Hsing University

	<p>17:30-17:45 1199 <20aF14O> Ryosuke Iida "Embedded SiO₂ waveguide structures for GaInN VCSELs" ¹Ryosuke Iida, ¹Wataru Muranaga, ¹Syo Iwaya, ¹Tetsuya Takeuchi, ¹Satoshi Kamiyama, ¹Motoaki Iwaya and ^{1,2}Isamu Akasaki ¹Meijo University ²Nagoya University</p>
<p>17:45-18:15 <20aE15l> Invited Lecture Masaru Hori Nagoya University "A Door of Plasma Chemistry toward Bio Innovations Opened by Professor Riccard D'Agostino"</p>	
<p>18:15-18:45 <20aE16l> Invited Lecture Tatsuru Shirafuji Osaka City University "Functional Thin Film Formation Localized at Plasma/Liquid Interface: A New Perspective of Plasma Polymerization Dedicated to Prof. Riccardo d'Aqostino (June 17, 1942-April 21, 2018)"</p>	