

DPS2009 Program (September 24)

<<Plenary>> 9:00 - 9:40, 205(C)	Development of Large Area Materials Processing Technologies: High Frequency CCPs for Microelectronics to Web Processing of Polymers	Y. Yang Univ. of Michigan M. Wang Univ. of Michigan J. Shoeb Univ. of Michigan M.J. Kushner Univ. of Michigan
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Break

Award Ceremony 9:50 - 10:05, M201(D) [Presenter: T. Ohiwa]

Session 1 New technologies for plasma control 10:10 - 11:20, M201(D) [Chair: M. Sekine]	1-1 Effects of Inductively Coupled Plasma and Substrate Control Parameters on 193 nm Photoresist Roughening	M. J. Titus Univ. of California, Berkeley D. B. Graves Univ. of California, Berkeley
	1-2 Analysis of Plasma-Wall Reactions using Virtual OES Signal during Dielectric Etching	N. Kuboi Sony corp. M. Fukasawa Sony corp. A. Kawashima Sony corp. K. Oshima Sony corp. K. Nagahata Sony corp. T. Tatsumi Sony corp.
	1-3 <Invited> EEDf of the DC+RF Hybrid and its Effects on Etching Process	L. Chen Tokyo Electron America, Inc. L. Xu Tokyo Electron America, Inc. M. Funk Tokyo electron America, Inc.

Break

Session 2 Poster session (1) 11:30 - 13:30 [Chair: H. Hayashi, T. Shirafuji]	<Poster> Plasma & Surface Reactions Conductor & Si Etching Modeling and Simulation Plasma Equipment and Monitoring System CVD/PVD/ALD
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Lunch

<<Plenary>> 14:00 - 14:40, 205(C)	Vacuum Ultraviolet Plasma Emission in a Dielectric Etch Reactor	E. Hudson Lam Research Corp. M. Moravej Lam Research Corp. M. Block Lam Research Corp. S. Sirard Lam Research Corp. D. Wei Lam Research Corp. K. Takeshita Lam Research Corp. B. Jinnai Tohoku Univ. S. Samukawa Tohoku Univ.
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Break

Session3 "Arranged session" Precise Control of Plasma-surface reactions (1) 14:50 - 16:00, M201(D) [Chair: N. Itabashi]	3-1 <Invited> Nanoprocessing with Cluster Beams—Challenges and Opportunities	J. Matsuo Kyoto University, CREST
	3-2 Determination of Precursors for Nitriding Silicon Surface using Inductively-Coupled Nitrogen Plasma	Y. Horikawa Nagoya Univ. K. Kurihara Toshiba Corp. K. Sasaki Nagoya Univ.
	3-3 Optical and Electrical Characterization of H2 Plasma-Damaged Si Surface Structures and its Impact on In-line Monitoring	Y. Nakakubo Kyoto Univ. A. Matsuda Kyoto Univ. M. Fukasawa Sony Corp. Y. Takao Kyoto Univ. T. Tatsumi Sony Corp. K. Eriguchi Kyoto Univ. K. Ono Kyoto Univ.

Break

Session4 "Arranged session" Precise Control of Plasma-surface reactions (2) 16:20 - 17:20, M201(D) [Chair: I. Sawada]	4-1 Low Damage Resist Strip for Porous SiOCH using 100 MHz / 13.56 MHz DFS CCP	T. Imamura Toshiba Corp. K. Yamamoto Toshiba Corp. K. Sato Toshiba Corp. K. Kurihara Toshiba Corp. H. Hayashi Toshiba Corp. T. Ohiwa Toshiba Corp.
	4-2 In-situ Evaluation of H2 Plasma Damage on Porous SiOCH Low-k Films	H. Yamamoto Nagoya Univ. K. Takeda Nagoya Univ. M. Sekine Nagoya Univ. M. Hori Nagoya Univ. T. Kaminatsui Toshiba Corp. K. Yamamoto Toshiba Corp. H. Hayashi Toshiba Corp. I. Sakai Toshiba Corp. T. Ohiwa Toshiba Corp.
	4-3 Wiggling of Porous Dielectric Lines for Advanced Technological Node: from Simulation to Experiment	J. Ducote STMicroelectronics T. David CEA-LETI-Minatec N. Posseme CEA-LETI-Minatec T. Chevolleau CNRS-LTM F. Bailly STMicroelectronics A. Ostrovsky STMicroelectronics M. Guillermet CEA-LETI-Minatec C. Verove STMicroelectronics J.C. Barbe CEA-LETI-Minatec R.L. Inglebert CNRS-LTM O. Joubert CNRS-LTM

Break

Session 5 Poster session (2) 17:30 - 19:30 [Chair: S. Miyazaki, K. Takahashi]	<Poster> Dielectric Etching Plasma Diagnostics Plasma processes for 3D Devices, FPD, LED, LASER, Organic Devices, Bio-Application, Medicine, MEMS, Nanotechnologies, and Environmental Technology Processes using Atmospheric and Liquid Plasmas New Dry Process Concept Wet Process and Reactions
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DPS2009 Program (September 25)

<<Plenary>>
 9:00 - 9:40, 205(C)
 [Chair: M. Nakamura] Three-Dimensional Integration Technology Using Self-Assembly Technique M. Koyanagi Tohoku Univ.

Break

Session 6 More Moore & More than Moore 9:50 - 11:20, M201(D) [Chair: K. Kinoshita]	6-1	Role of Radical Reaction in Non-Bosch TSV Etching	T. Maruyama Renesas Technology Corp. T. Narukage Renesas Semiconductor Engineering Corp. R. Onuki Renesas Technology Corp. K. Yonekura Renesas Technology Corp. N. Fujiwara Renesas Technology Corp.
	6-2	Dry-Etch Fin Patterning on SOI: Transition from 32 to 22nm Node on a 6T-SRAM Cell	E. Altamirano-Sanchez imec M. Ercken imec A. Veloso imec M. Demand imec W. Boullart imec
	6-3	Advanced Gate Dimension Control for R2R Loop Implementation in an Industrial Environment	L. Babaud ST Microelectronics/LTM,CNRS P. Gouraud ST Microelectronics E. Pargon LTM,CNRS O. Joubert LTM,CNRS
	6-4	<Invited> Multi-layer Stacking Technology using Direct Connection between TSV and Bump	N. Miyakawa Honda Research Inst. Japan Co. E. Hashimoto Honda Research Inst. Japan Co. T. Maebashi Honda Research Inst. Japan Co. N. Nakamura Honda Research Inst. Japan Co. Y. Sacho, Honda Research Inst. Japan Co. S. Nakayama Honda Research Inst. Japan Co. S. Toyoda Honda Research Inst. Japan Co.

Break

Session 7 "Arranged session" Precise Control of Plasma-surface reactions (3) 11:40 - 13:00, M201(D) [Chair: K. Kurihara]	7-1	Analyses of Surface Reaction on Cellulose and Gycine Treated in Atmospheric Microwave-Excited Plasmas for Elucidating the Mechanism of Sterilization	S. Yoshida Kyoto Inst. Tech. T. Ogawa Kyoto Inst. Tech. T. Fukuda Kyoto Inst. Tech. K. Takahashi Kyoto Inst. Tech. T. Urayama Adtec Europe S. Aoki Adtec Plasma Tech.
	7-2	Growth of the SiN Nanoparticles by using Plasma Etching and the Application for the Solar Cells	C. Yang Sungkyunkwan Univ., SAINT S.-H. Ryu Sungkyunkwan Univ., SAINT W.-J. Yoo Sungkyunkwan Univ., SAINT Y.-J. Park Samsung Advanced Inst. of Technology J. M. Kim Samsung Advanced Inst. of Technology
	7-3	Etching Magnetic Tunnel Junction with Metal Etchers	K. Kinoshita NEC Corp. H. Utsumi NEC Corp. K. Suemitsu NEC Corp. H. Hada NEC Corp. T. Sugibayashi NEC Corp.
	7-4	Formation of Cobalt and Cobalt-Silicide Nanodots on ultrathin SiO2 Induced by Remote Hydrogen Plasma	A. Kawanami Hiroshima Univ. K. Makihara Hiroshima Univ. M. Ikeda Hiroshima Univ. S. Miyazaki Hiroshima Univ.

Lunch

<<Plenary>>
 14:00 - 14:40, 205(C)
 [Chair: T. Ohwa] Innovative Technologies for New Semiconductor Era C.-J. Kang Samsung Electronics CO., LTD
 Y.-J. Kim Samsung Electronics CO., LTD
 K.-S. Shin Samsung Electronics CO., LTD

Break

Session 8 Advanced dry etching systems 14:50 - 16:00, M201(D) [Chair: K. Nojiri]	8-1	<Invited> Three-dimensional Modeling of Plasma Processing Equipment	S. Rauf Applied Materials, Inc. J. Kenney Applied Materials, Inc. Z. Chen Applied Materials, Inc. K. Collins Applied Materials, Inc.
	8-2	Tilting Control at Wafer Edge by Biasing to Focus Ring in UHF-ECR Dielectric Etching Apparatus	K. Maeda Hitachi Ltd. K. Yokogawa Hitachi Ltd. T. Ichino Hitachi High-Technologies T. Tamura Hitachi High-Technologies K. Hirozane Hitachi High-Technologies T. Kanekiyo Hitachi High-Technologies M. Izawa Hitachi Ltd.
	8-3	Fine Ion Energy Control for Sub-32 nm Node Device RIE using Pulsed-DC Superimposed 100 MHz rf CCP	H. Hayashi Toshiba Corp. A. Ui Toshiba Corp. T. Kaminatsui Toshiba Corp. K. Yamamoto Toshiba Corp. K. Kikutani Toshiba Corp. I. Sakai Toshiba Corp. T. Ohwa Toshiba Corp.

Break

Session 9 Damage & Fluctuation 16:20 - 17:40, M201(D) [Chair: H. Kokura]	9-1	Formation of High Quality SiO2 and SiO2/Si Interface using Thermal Plasma Jet Induced Millisecond Annealing and Post-Metallization Annealing	Y. Hiroshige Hiroshima Univ. S. Higashi Hiroshima Univ. K. Matsumoto Hiroshima Univ. S. Miyazaki Hiroshima Univ.
	9-2	Linewidth Roughness Transfer during Gate Stack Patterning with Amorphous Carbon Mask: Impact of Cure and Trim Processes	E. Pargon LTM/CNRS L. Azarnouche STMicroelectronics M. Martin LTM/CNRS O. Luere LTM/CNRS K. Menguelti LTM/CNRS P. Gouraud STMicroelectronics O. Joubert LTM/CNRS
	9-3	Investigation of Mask Distortion during Trimming	N. Kofuji Hitachi, Ltd. H. Miura Tohoku Univ.
	9-4	Threshold Voltage Instability Induced by Plasma Process Damage in Advanced MOSFETs	K. Eriguchi Kyoto Univ. Y. Nakakubo Kyoto Univ. A. Matsuda Kyoto Univ. M. Kamei Kyoto Univ. Y. Takao Kyoto Univ. K. Ono Kyoto Univ.

Closing Remark 17:40 - 17:50, M201(D) [N. Itabashi]

DPS2009 Program (Poster presentations)

Poster session (1)
(9/24) 11:30 - 13:30

[Chair: H. Hayashi, T. Shirafuji]

Plasma & Surface Reactions	2-P01	Cylinder Rod Surface Coating using Sputtering Deposition Method with Modulated Magnetic Field	H. Kawasaki Sasebo National College of Technology K. Shibahara Sasebo National College of Technology T. Ohshima Sasebo National College of Technology Y. Yagyu Sasebo National College of Technology Y. Suda Sasebo National College of Technology
	2-P02	Investigation of the Scalability of TiN Barrier Layer for Advanced Si-Processing	G. Zhang Sungkyunkwan Univ. W.J. Yoo Sungkyunkwan Univ.
	2-P03	Chemical Sputtering of Chlorinated GaN	K. Harafuji Ritsumeikan Univ. K. Kawamura Tokyo Inst. of Technology
	2-P04	Effect of Ar/O ₂ Ion-beam Treatment on the Interfacial Adhesion and Chemical Reaction between Sputter-deposited Cu film and FR-4 Substrate	K.-J. Min Andong National Univ. S.-C. Park Andong National Univ. G.-H. Lee Korea Inst. of Materials Science K.-W. Lee Amkor Technology Korea Inc. J.-D. Kim Amkor Technology Korea Inc. D.-G. Kim Korea Inst. of Materials Science Y.-B. Park Andong National Univ.
	2-P05	Effect of Bonding Temperature and Post-Annealing Conditions on Cu-Cu Bonding Quality for 3-D IC Integration	E.-J. Jang Andong National Univ. J.-W. Kim Andong National Univ. B. Kim EV Group T. Matthias EV Group S. Hyun Korea Inst. of Machinery & Materials H.-J. Lee Korea Inst. of Machinery & Materials Y.-B. Park Andong National Univ.
	2-P06	Reduction of Fluorinated Al ₂ O ₃ by Irradiating H ₂ and O ₂ Plasmas	K. Miwa Nagoya Univ. N. Takada Nagoya Univ. K. Sasaki Nagoya Univ.
	2-P07	Chamber Surface Control for Process Stability	Y. Chiba Fujitsu Microelectronics Ltd. T. Matsumoto Fujitsu Microelectronics Ltd. M. Terahara Fujitsu Microelectronics Ltd. H. Kokura Fujitsu Microelectronics Ltd. F. Harada Fujitsu Microelectronics Ltd. A. Hasegawa Fujitsu Microelectronics Ltd.
	2-P08	Effects of Argon Plasma Surface Modification on Peel Strength of Woven Type Ultra High Molecular Weight Polyethylene	C.Y. Huang Tatung Univ. J.Y. Wu Tatung Univ. S.K. Lin Tatung Univ. C.S. Tsai Tatung Univ. K.N. Chen Tamkang Univ. J.T. Yeh National Taiwan Univ. of Science and Technology
	2-P09	Effect of Surface Roughness on Secondary Electron Emission of Diamond in Ne Plasma	T. Misu Kanagawa Inst. of Technology S. Ono Kanagawa Inst. of Technology M. Goto Kanagawa Inst. of Technology T. Arai Kanagawa Inst. of Technology
	2-P10	Investigation of Photoresist Surface Modified Layer by Fluorocarbon Ion Bombardment	T. Takeuchi Nagoya Univ. M. Sekine Nagoya Univ. H. Toyoda Nagoya Univ. K. Takeda Nagoya Univ. M. Hori Nagoya Univ. S.-Y. Kang Tokyo Electron Ltd. I. Sawada Tokyo Electron Ltd.
	2-P11	Combinatorial Analysis of Plasma-Materials Interactions for Advanced R&D of Future Nano Devices	Y. Setsuhara Osaka Univ., JST, CREST K. Cho Osaka Univ., JST, CREST K. Takenaka Osaka Univ., JST, CREST M. Shiratani Kyushu Univ., JST, CREST M. Sekine Nagoya Univ., JST, CREST M. Hori Nagoya Univ., JST, CREST
	2-P12	Preparation and Characteristics of 'Nafion-like' Plasma Polymerized Membrane	Z. Jiang Chinese Academy of Sciences X. Yu Chinese Academy of Sciences Y. Meng Chinese Academy of Sciences Z.-J. Jiang Chinese Academy of Sciences Y. Shi Chinese Academy of Sciences C. Corr Australian National Univ. R. Boswell Australian National Univ. C. Charles Australian National Univ. M. Nagatsu Shizuoka Univ.
	2-P13	Dust Particles Formed owing to Interactions between H ₂ or D ₂ Helicon Plasmas and Graphite	H. Miyata Kyushu Univ. S. Iwashita Kyushu Univ. Y. Yamada Kyushu Univ. K. Koga Kyushu Univ. M. Shiratani Kyushu Univ.
	2-P14	Nano-Surface Chemical Bonding States Analysis of Plasma-Exposed Polymers with Hard X-Ray Photoelectron Spectroscopy	Y. Setsuhara Osaka Univ., JST, CREST K. Cho Osaka Univ., JST, CREST M. Shiratani Kyushu Univ., JST, CREST M. Sekine Nagoya Univ., JST, CREST M. Hori Nagoya Univ., JST, CREST E. Ikeitaga JASRI O. Nakatsuka Nagoya Univ. S. Zaima Nagoya Univ.
	2-P15	Modification for Adsorption Property of Active Carbon Surface Preliminarily Treated by Polyvinylalcohol using Microwave Cold Plasma	M. Ueshima Hachinohe National College of Technology E. Toda Saitama Univ. Y. Nakajima Saitama Univ. K. Sugiyama Hachinohe National College of Technology
Conductor & Si Etching	2-P16	Inductively Coupled Plasma Reactive Ion Etching of Gallium Indium Zinc Oxide Thin Films in Cl ₂ /Ar Gas Mix	D.Y. Lee Inha Univ. Y.B. Xiao Inha Univ. E.H. Kim Inha Univ. C.W. Chung Inha Univ.
	2-P17	Improvement of Surface Roughness in SOI Wafer Fabrication using Cl ₂ -based Neutral Beam Etching	T.H. Min Sungkyunkwan Univ. J.K. Yeon Sungkyunkwan Univ. B.J. Park Sungkyunkwan Univ. S.K. Kang Sungkyunkwan Univ. M.H. Jeon Sungkyunkwan Univ. G.Y. Yeom Sungkyunkwan Univ.
	2-P18	FinFET Metal Gate Hi-k Etch for Sub-32nm Technology	G. Kamarthy Lam Research Corp. G. Lo Lam Research Corp. I. Orain Lam Research Corp. Y. Kimura Lam Research Corp. R. Deshpande Lam Research Corp. Y. Yamaguchi Lam Research Corp. C. Lee Lam Research Corp. L. Braly Lam Research Corp.

	2-P19	Atomic-scale Cellular Model and Profile Simulation of Si Etching: Analysis of Profile Anomalies and Microscopic Uniformity	H. Tsuda M. Mori K. Eriguchi K. Ono	Kyoto Univ. Kyoto Univ. Kyoto Univ. Kyoto Univ.
	2-P20	Metal Gate High-k Etch Challenges and Solutions	G. Kamarthy I. Orain Y. Kimura A. Kabansky A. Ozzello L. Braly	Lam Research Corp. Lam Research Corp. Lam Research Corp. Lam Research Corp. Lam Research Corp. Lam Research Corp.
	2-P21	Large Area Negative Ion Source Based on Matrix ECR Cells for Fast Silicon Etching	E. Stamate A. Lacoste	Technical Univ. of Denmark Universite Joseph Fourier
Modeling and Simulation	2-P22	Lateral Relation of Epitaxial Thin Film with Large Lattice Mismatch on Samples Prepared by YAG Laser Deposition	S. Kaneko K. Akiyama T. Ito M. Yasui M. Soga Y. Hirabayashi H. Funakubo M. Yoshimoto	Kanagawa Ind. Tech. Center Kanagawa Ind. Tech. Center Kanagawa Ind. Tech. Center Kanagawa Ind. Tech. Center Kanagawa Ind. Tech. Center Kanagawa Ind. Tech. Center Tokyo Inst. of Technology Tokyo Inst. of Technology
	2-P23	Estimation of the Branching Ratios of Electron Impact Dissociation of Fluorocarbon Compounds	S.-Y. Kang I. Sawada	Tokyo Electron Ltd. Tokyo Electron Ltd.
	2-P24	Modeling of Particle Growth in Pulsed PCVD Process for Preparation of High-Quality Thin Films	D.-J. Kim T.D. Nguyen K.-S. Kim	Kangwon National Univ. Kangwon National Univ. Kangwon National Univ.
Plasma Equipment and Monitoring System	2-P25	Development of High-Density Radio Frequency Plasma Source with Ring-Shaped Hollow Electrode for Dry Processing	Y. Ohtsu H. Urasaki T. Misawa H. Fujita	Saga Univ. Saga Univ. Saga Univ. Saga Univ.
	2-P26	Investigation of the Inductively Coupled Plasma Source with a Ni-Zn Ferrite Module	G.H. Gweon K.N. Kim J.H. Lim S.P. Hong G.Y. Yeom	Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ.
	2-P27	Polyimide Film Etching by an Atmospheric-Pressure μ Plasma using a 100- μ m- ϕ SUS Pipe	H. Yoshiki	Tsuruoka National College of Technology
	2-P28	Monitoring of Growth and Removal of Hydrocarbon Thin Films by Optical Reflectance Interference	K. Uehara M. Shinohara Y. Matsuda	Nagasaki Univ. Nagasaki Univ. Nagasaki Univ.
CVD/PVD/ALD	2-P29	Thin Film Transistors with Amorphous IGZO Semiconductor Fabricated by DC Magnetron Sputtering	W.-S. Kim Y.-K. Moon S. Lee B.-W. Kang K.-T. Kim J.-W. Park	Hanyang Univ. Hanyang Univ. Hanyang Univ. Hanyang Univ. Hanyang Univ. Hanyang Univ.
	2-P30	Corrosion Properties of CrNTiN Multi-Coating on 316L Stainless Steel for Bipolar Plate in Polymer Electrolyte Membrane Fuel Cell Application	N. D. Nam J.S. Song J.G. Kim	Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ.
	2-P31	Deposition of a Carbon Nanocomposite Film using Magnetron Sputtering	T. Tsutsumi N. Takada N. Nafarizal K. Sasaki	Nagoya Univ. Nagoya Univ. Univ. Tun Hussein Onn Malaysia Nagoya Univ.
	2-P32	Selective Epitaxial Growth of Silicon for Vertical Diode Application and Its Practical Selectivity	K.-S. Lee S.-J. Park J.-J. Han Y.-W. Hyung S.-S. Kim C.-J. Kang J.-T. Moon H.-S. Jeong B.-D. Choi	Sungkyunkwan Univ / Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Sungkyunkwan Univ
	2-P33	A Improvement Model For a Lower Leakage Current of Oxide-Nitride-Oxide (ONO) Inter-Poly Dielectrics Through Post Plasma Oxidation Treatment	W. Lee J. Jee J. Bok Y. Hyung S. Kim C.-J. Kang J.-T. Moon K.-S. Kim Y. Roh	Samsung Electronics / Univ. of Sungkyunkwan Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Samsung Electronics Sungkyunkwan Univ Sungkyunkwan Univ
	2-P34	Studies on the Characterization of Polystyrene Films Prepared by RF Plasma CVD Process	A.J. Choudhury J. Chutia	Inst. of Advanced Study in Sci. and Technol. Inst. of Advanced Study in Sci. and Technol.
	2-P35	Fabrication of Tungsten Oxide Thin Film on the Flexible Substrate using RF Magnetron Sputtering in Ar/O ₂ Mixture Gas	T. Matsunaga T. Ohshima H. Kawasaki Y. Yagyu Y. Suda	Sasebo National College of Technology Sasebo National College of Technology Sasebo National College of Technology Sasebo National College of Technology Sasebo National College of Technology
	2-P36	Characterization of Double Interfaces System (Si ₃ N ₄ /SiO ₂ /Si and SiO ₂ /Si ₃ N ₄ /Si) Grown by ALD	S.K. Kang S.K. Rha J.H. Seo Y.S. Lee W.J. Lee	Hanbat National Univ. Hanbat National Univ. Hanbat National Univ. Hanbat National Univ. Sejong Univ.
	2-P37	Epitaxial Growth of b-FeSi ₂ Thin Film on SiC by Co-Sputtering of Iron and Silicon	K. Akiyama S. Kaneko T. Kadowaki Y. Hirabayashi	Kanawaga Industrial Technology Center Kanawaga Industrial Technology Center Kanawaga Industrial Technology Center Kanawaga Industrial Technology Center
	2-P38	Growth of SnO ₂ Thick Films by Plasma Spray Physical Vapor Deposition	K. Iizuka S. Sekiguchi K. Nakamura M. Kambara T. Yoshida	Univ. of Tokyo Univ. of Tokyo Uchiya Thermostat Corp. Univ. of Tokyo Univ. of Tokyo
	2-P39	Preparation and Characterization of Copper Selenide and Indium Selenide Thin Films by MOCVD	J.H. Yoo S.M. Yu J.H. Lee C.H. Choi J.B. Yoo	Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ. LG Micron Ltd. Sungkyunkwan Univ.
	2-P40	Pulsed Supermagnetron Plasma CVD of Amorphous Carbon Nitride Films	H. Kinoshita A. Yamaguchi	Shizuoka Univ. Shizuoka Univ.
	2-P41	Enhancement of the Sidewall Step Coverage of the Sputter-Deposited Film Through the Ideally-Tapered Via	C.G. Kim W.J. Lee	KAIST KAIST
	2-P42	Fabrication of CuInSe ₂ Thin Film by Metal-Organic Chemical Vapor Deposition	S.M. Yu J.H. Yoo J.H. Lee C.-H. Choi J.-B. Yoo	Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ. LG Micron Ltd. Sungkyunkwan Univ.
	2-P43	Effects of NH ₃ Plasma Pretreatment of Ta Substrate on Copper Seed Layer Formation by PE-ALD	D.-Y. Moon T.-S. Kim B.M. Kim J.H. Kim J.-W. Park	Hanyang Univ. Hanyang Univ. Hynix Hynix Hanyang Univ.
	2-P44	Effect of N ₂ Gas Flow Ratio in Plasma Enhanced Chemical Vapor Deposition with SiH ₄ -NH ₃ -N ₂ -He Gas Mixture on Stress Relaxation of Silicon Nitride	T. Murata Y. Miyagawa M. Matsuura K. Asai	Renesas Technology Corp. Renesas Technology Corp. Renesas Technology Corp. Renesas Technology Corp.

	2-P45	Monosilane Dissociation Process in Microwave-Excited High-Density H ₂ /SiH ₄ Plasma	H. Asano Nagoya Univ. H. Endo Nagoya Univ. T. Ishijima Nagoya Univ. H. Toyoda Nagoya Univ.
	2-P46	Porosity Control of Nano-particle Composite Porous Low Dielectric Films using Pulse RF Discharges with Amplitude Modulation	S. Iwashita Kyushu Univ. H. Miyata Kyushu Univ. K. Koga Kyushu Univ. H. Matsuzaki Kyushu Univ. M. Shiratani Kyushu Univ. M. Akiyama AIST
	2-P47	Pressure and Aspect Ratio Dependence of Deposition Profile of Carbon Films on Trench Substrates Deposited by Plasma CVD	T. Nomura Kyushu Univ.. Y. Korenaga Kyushu Univ.. J. Umetsu Kyushu Univ.. H. Matsuzaki Kyushu Univ.. K. Koga Kyushu Univ. / JST, CREST. M. Shiratani Kyushu Univ. / JST, CREST. Y. Setsuhara Osaka Univ. / JST, CREST. M. Sekine Nagoya Univ. / JST, CREST. M. Hori Nagoya Univ. / JST, CREST.
	2-P48	Characterics of Preparation Metallic Nanodot by Organ-Metal Solution with Burning Method	I. Muramoto Sojo Univ. S. Aouki Sojo Univ. H. Kawasaki Sasebo National College of Technology T. Oosima Sasebo National College of Technology T. Uematsu Tokyo Metropolitan Industrial Technology Research Inst.
	2-P49	Growth of TiO ₂ Thin Films on Polypropylene Particles by PCVD Process	H.C. Pham Kangwon National Univ. D.-J. Kim Kangwon National Univ. K.-S. Kim Kangwon National Univ.
	2-P50	Synthesis of Si Nanoparticles for Multiple Exciton Generation Solar Cells using Multi-Hollow Discharge Plasma CVD	Y. Kawashima Kyushu Univ. H. Sato Kyushu Univ. K. Koga Kyushu Univ. M. Shiratani Kyushu Univ. M. Kondo AIST
	2-P51	Plasma-Enhanced ALD Oxide Film by Microwave RLSA	Y. Osawa Tokyo Electron Technology Development Inst., Inc. H. Ueda Tokyo Electron Technology Development Inst., Inc. M. Horigome Tokyo Electron Technology Development Inst., Inc. Y. Tanaka Tokyo Electron Technology Development Inst., Inc. T. Nozawa Tokyo Electron Technology Development Inst., Inc.
	2-P52	Growth of Ultrananocrystalline Diamond/Amorphous Carbon Composite Films using a Coaxial Arc Plasma Gun	K. Hanada Kyushu Univ. T. Yoshitake Kyushu Univ. Y. Nakagawa Kyushu Univ. T. Yoshida Kyushu Univ. R. Ohtani Saga-LS H. Setoyama Saga-LS E. Kobayashi Saga-LS K. Sumitani Saga-LS T. Okajima Saga-LS K. Nagayama Kyushu Univ.
	2-P53	Measurements of Surface Temperature of a-Si:H Films in Silane Multi-Hollow Discharges with IR Thermometer	H. Sato Kyushu Univ. Y. Kawashima Kyushu Univ. K. Nakahara Kyushu Univ. K. Koga Kyushu Univ. M. Shiratani Kyushu Univ.
	2-P54	Time-Resolved Optical Observation of Plasma Process in Ultrananocrystalline Diamond/Amorphous Carbon Composite Films Deposition with a Coaxial Arc Plasma Gun	K. Hanada Kyushu Univ. T. Nishiyama Kyushu Univ. T. Yoshitake Kyushu Univ. K. Nagayama Kyushu Univ.
	2-P55	Oxygen Gas Barrier Properties Related with Structure of Hydrogenated Amorphous Carbon Films by ICP-CVD	S.-M. Baek Nagoya Univ. T. Shirafuji Nagoya Univ. S.-P. Cho Nagoya Univ. N. Saito Nagoya Univ. O. Takai Nagoya Univ.

Poster session (2)

9/24 17:30 - 19:30

[Chair: S. Miyazaki, K. Takahashi]

Dielectric Etching	5-P01	Mechanism of Surface Roughening during Porous SiOCH Etching in Fluorocarbon Based Plasmas	F. Bailly STMicroelectronics T. David CEA T. Chevolleau CNRS N. Posseme CEA O. Joubert CEA C. Cardinaud CNRS
	5-P02	New Approach of Etching Analysis based on Internal Parameters in Combinatorial Plasma Process	C.S. Moon Nagoya Univ. K. Takeda Nagoya Univ. M. Sekine CREST, Nagoya Univ. Y. Setsuhara CREST, Osaka Univ. M. Shiratani CREST, Kyushu Univ. M. Hori CREST, Nagoya Univ.
	5-P03	TiO ₂ Etching by Atomic Layer Etching with BCl ₃ Gas and Ar Neutral Beam	Y.Y. Kim Sungkunkwan Univ. W.S. Lim SAINT, Sungkunkwan Univ. B.J. Park Sungkunkwan Univ. G.Y. Yeom Sungkunkwan Univ.
	5-P04	Modification of Porous SiOCH Trench Sidewalls Induced by Reducing and Oxidizing Post Etching Plasma Treatments	R. Bouyssou CNRS-LTM T. Chevolleau CNRS-LTM N. Posseme CEA-LETI C. Licitra CEA-LETI T. David CEA-LETI A. Ostrovsky STM C. Verove STM O. Joubert CNRS-LTM
	5-P05	Use of RLSA Plasma and HBr Process to Achieve Zero CD-Bias and Pattern Density Independent Multi-layer Mask Etching	T. Ozu Tokyo Electron Development Inst. M. Sasaki Tokyo Electron Development Inst. T. Nozawa Tokyo Electron Development Inst.
	5-P06	Etch Selectivity and Line Edge Roughness during Etching of Hard-Mask Layer with Patterned Extreme Ultra-Violet Resist in Dual-Frequency Capacitively Coupled Plasmas	B.S. Kwon Sungkyunkwan Univ. C.R. Jung Sungkyunkwan Univ. W. Heo Sungkyunkwan Univ. J.S. Park Sungkyunkwan Univ. N.-E. Lee Sungkyunkwan Univ. S.K. Lee Hynix Semiconductor
	5-P07	Damage-free Resist Ashing on Low-k Film Using Dual Frequency Capacitively Coupled Ar/O ₂ Plasma	Y. Miyawaki Nagoya Univ. K. Takeda Nagoya Univ. M. Sekine Nagoya Univ. M. Hori Nagoya Univ.
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	5-P09	Application of a Grad-T Type Thermal Probe to the Discharge Plasma	H. Matsuura Osaka Prefecture Univ. K. Nakano Osaka Prefecture Univ. S. Kado Univ. of Tokyo
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5-P13	Temporal Variation of Hydrogen Atom Spectrum Emitted from Pulsed Microwave Plasma under Atmospheric Pressure	H. Yang T. Ishijima H. Toyoda	Nagoya Univ. Nagoya Univ. Nagoya Univ.	
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5-P16	Mircrowave Resonance Probes for Diagnostics of High Pressure Plasmas	K. Nakamura J. Xu Q. Zhang H. Sugai	Chubu Univ. Chubu Univ. Chubu Univ. Chubu Univ.	
5-P17	Measurements of Electron Density in SiH ₄ +H ₂ Multi-Hollow Discharges using a Frequency Shift Probe	K. Nakahara Y. Kawashima H. Sato K. Koga M. Shiratani	Kyushu Univ. Kyushu Univ. Kyushu Univ. Kyushu Univ. Kyushu Univ.	
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	5-P22	Basic Study of Surface Treatment at Low Discharge Voltage by Atmospheric Microplasma	K. Shimizu A. Umeda M. Blajan	Shizuoka Univ. Shizuoka Univ. Shizuoka Univ.
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	5-P25	Improvement of CVD SiO ₂ by SPA Plasma Treatment	T. Shiozawa D. Katayama D. Tamura Y. Kabe T. Kobayashi Y. Sato Y. Hirota N. Yamamoto	Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd. Tokyo Electron AT Ltd.
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