Sunday, November 27, 2005

17:00		Registration (Convention Lobby)		
18:00		Welcome Reception		

Monday, November 28, 2005

Session 1 — Opening Session (Ballroom 1 (2F))

Chair person: K. Nojiri (Lam Research Co., Ltd.)

8:30		Opening Remarks	Hideo Sugai	Nagoya University
8:40	1-01	(Keynote) Current and Future Memory Technology	U-In Chung	Samsung Electronics

Session 2 — Etching and Surface Treatment (Ballroom 1 (2F))

Chair person: T.-H. Ahn (Samsung Electronics Co.)

9:15	2-01	(Invited) Contact Hole Etching Challenges for Nano Era	S.K.Lee, M.S.Lee, K.S.Shin, Y.C.Kim, J.H.Sun, T.W.Jung, D.D.Lee, G.S.Lee, S.C.Moon, and J.W.Kim	Hynix Semiconductor
9:50	2-02	Etching Characteristics and Modeling for Oval-shape Contact	S.C.Park, S.Lim, C.H. Shin, G. J. Min, C.J.Kang, H.K.Cho, and J.T.Moon	Samsung Electronics
10:10		Break		

Chair person: M. Izawa (Hitachi Ltd.)

10:25	2-03	(Invited) Dependence of Plasma-Induced Modification of Surfaces on Polyatomic Ion Chemistry	Inkook Jang, Wen-Dung Hsu, and Susan. B. Sinnott	University of Florida
11:00	2-04	Improvement in Gate LWR with Plasma Curing of ArF Photoresist	A. Ando, E. Matsui,N. Matsuzawa, Y. Yamaguchi, K. Kugimiya, M. Yoshida, K.M.A. Salam, and T. Tatsumi	Sony Corporation
11:20	2-05	Sub-55-nm Etch Process Using Stacked-Mask Process	J. Abe, H. Hayashi, Y. Taniguchi, H. Kato, Y. Onishi, I. Sakai, and T. Ohiwa	Toshiba Corporation Semiconductor Company

11:40	2-06	Control of Oxidation on NiSix during Etching and Ashing Process	S. Sakamori1, K. Yonekura1, N. Fujiwara1, T. Kosaka2, M. Ohkuni2, and K. Tateiwa2	1Renesas Technology, 2Matsushita Electric Industrial Co., Ltd.
12:00		Lunch		
Session 3		Plasma (Ballroom 1 (2F))		
				Chair person: L. J. Overzet (University of Texas at Dallas)
13:10	3-01	(Invited) Ion, Electron and Radical Dynamics in a Dual-Frequency Dielectric Etcher	J.P. Booth, G. Curley, and N. Bulcourt	Ecole Polytechnique
13:45	3-02	(Invited) A Case Study of Model Based Development of Plasma Sources: Multi-Frequency MERIE Reactors	Mark J. Kushner and Yang Yang	Iowa State University
				Chair person: A. Kono (Nagoya University)
14:20	3-03	Control of Meter-Scale High-Density Microwave Plasma for Giant Materials Processing	Y.Nojiri, Y.Yamaguchi, T.Ishijima, and H.Sugai	Nagoya University
14:40	3-04	(Invited) Controlling the Ion Flux on Substrates of Different Geometry by Sheath-Lens Focusing Effect	E. Stamate and H. Sugai	Nagoya University
15:15		Break		
Session 4		Plasma Damage (Ballroom 1 (2F))		
				Chair person: K. Nojiri (Lam Research Co., Ltd.)
15:30	4-01	(Invited) Yield Improvement for 65nm and 45nm Integrated Circuits Using Advanced Transistor Structures and Damascene Processes	Paul Aum1 and Thuy Dao2	1Spider Systems, 2Freescale Semiconductor
16:05	4-02	Study of Plasma Charging-Induced White Pixel Defect Increase in CMOS Active Pixel Sensor	Ken Tokashiki, KeunHee Bai, KyeHyun Baek, Yongjin Kim, Gyungjin Min, Changjin Kang, Hanku Cho, and Jootae Moon	Samsung Electronics
16:25	4-03	Plasma Induced Damage on Ultra Shallow Junction in Spacer Etching	Hikaru Kokura, Kenichi Okabe, Masafumi Nakaishi, and Motoshu Miyajima	Fujitsu Limited
Session 5		Poster Session 1 (Convention Lobby, 16:45-18:35)		
				Chair person: K. Kinoshita (National Institute of AIST), H.J. Lee (Cheju National University)

Low-k

5-01	Control of Radical and Ion Densities and Its Application to Damage-Free Resist Stripping over SiOCH in Oxygen-Based Surface Wave Plasmas	M. Hori1, K. Takeda1, Y. Kubota1, M. Sugiura1, Y. Matsumi1, S. Tahara2, and K. Kubota2	1Nagoya University, 2Tokyo Electron
5-02	Plasma Damages on Low-k Films in Etching and Photoresist Ashing	S. Takashima1, S. Uchida1, K. Ohshima2, K. Nagahata2, T. Tatsumi2, and M. Hori1	1Nagoya University, 2Sony Corporation
5-03	Resist Rework on Metal Hardmask in a Low-Plasma Damage Patterning Approach	H. Struyf, D. Hendrickx, G. Mannaert, W. Boullart ,and S. Vanhaelemeersch	IMEC
5-04	Low Damage Etch Approach of a New Porous SiOC(H) Low-k Dielectric	J. Van Aelst, Y. Travaly, H. Struyf, T. Dupont, D. Hendrickx, W. Boullart, and S. Vanhaelemeersch	IMEC
5-05	Study on the Structural Changes of Low-k Material during Ashing and Stripping	S.-I.Cho,K.-K.Chi,C.-J.Kang.H.-K.Cho,and J.-T.Moon	Samsung Electronics
5-06	Restoration process for degraded porous MSQ film	S. Tahara, R. Asako, Fitrianto, Y. Fujii, K. Kubota, K. Maekawa, and K. Hinata	Tokyo Electron
5-07	Effect of Dry Etching Chemistry on Reduction of Surface Roughness of Porous Silica Low-k Film	Tetsuo Ono1, Keizo Kinoshita1, Kazuaki Kurihara1, Yuko Takasu2, Yutaka Seino2, Nobuhiro, Hata2, and Takamaro Kikkawa2,3	1MIRAI, ASET, 2MIRAI, National Institute of Advanced Industrial Science and Technology, 3Hiroshima University
5-08	Contact Patterning Scheme for Organo-Siloxane Low-k Material as Pre-Metal Dielectric	JF de Marneffe, Q.T. Le, S. Demuynck, H. Struyf, and W. Boullart	IMEC
5-09	The Structures of Low Dielectric Constant SiOC Thin Films Prepared by Direct and Remote Plasma Enhanced Chemical Vapor Deposition	Jaeyeong Heo1, Hyeong Joon Kim1, JeongHoon Han2, and Jong-Won Shon2	1Seoul National University, 2Jusung Engineering,
5-10	Plasma Enhanced Chemical Vapor Deposition of Low Dielectric Constant SiOC(-H) Films using MTES/O2 Precursor	R. Navamathavan and Chi Kyu Choi	Cheju National University
5-11	A Study on the Plasma Parameters and Characteristics of Carbon Doped Silicon Oxide Film using MTMS/O2 and He Plasma	Chang Sil Yang and Chi Kyu Choi	Cheju National University
5-12	A study on the SIOC(-H) Films with Nano-pore Structure Deposited by ICPCVD	Kyoung Suk Oh and Chi Kyu Choi	Cheju National University
5-13	Electrical and Structural Properties of Amorphous Nitride Carbon (a-C:N) Films Deposited by Closed-Field Unbalanced Magnetron Sputtering with Different Nitrogen Content	Yong Seob Park and Byungyou Hong	SungKyunKwan Univ.
5-14	Fluorine Doped Low Refractive Index SiOCF:H Films for Increasing Light Emission Prepared by Plasma Enhanced Chemical Vapor Deposition	S. G. Yoon, S. M. Kang, H. Kim, and D. H. Yoon	SungKyunKwan Univ.

High-k, Metal Gate and New Materials

5-15	Etching of High-k Dielectric HfO2 Films in BCl3/O2 Plasmas	K. Nakamura1, T. Kitagawa1, K. Osari1, K. Takahashi1, K. Ono1, M. Oosawa2, S. Hasaka2, and M. Inoue2	1Kyoto University, 2Taiyo Nippon Sanso Corporation
5-16	Damage Free Process of MISFET(TaN/HfO2/Si) by Inductively Coupled Plasma	S.K. Yang, S.G. Lee, B.H. O. I.H. Lee, and S.G. Park	Inha university
5-17	Etching Properties of High Work Function IrO2in Cl2 / SF6 Plasma for CMOS Application	H. H. Ngu, W. S. Hwang, and W. J. Yoo	National University of Singapore
5-18	Etching Characteristics and Mechanisms for SrBi2Ta209(SBT), Pb(Zr,Ti)O3(PZT) and (Ba,Sr)TiO3(BST) Thin Films in Cl2/Ar Inductively Coupled Plasma	A. Efremov1, G. H. Kim2, and C. I. Kim2	1State University of Chemistry and Technology, 2Chung-Ang University
5-19	Effect of Fluorocarbon Gases on the Selective Etching of ZrOx Films using Inductively Coupled BCl3-Based Plasmas	Sang-Duk Park, Jong-Hyuk Lim, and Geun-Young Yeom	Sungkyunkwan university
5-20	Ion Beam Etching of Co3Pt Magnetic Nano Dot Array	D.H. Lee1, T.W. Lim1, G.H. Jeong1, S.J. Suh1, and S.Y. Yoon2	1Sungkyunkwan University, 2Samsung Advanced Institute of Technology
5-21	Dielectric Response of Strained BaTiO3/SrTiO3 Artificial superlattice: First-Principles Study	Leejun Kim1, Do Duc Cuong1, Juho Kim1, Umesh V Waghmare2, Donggeun Jung1, and Jaichan Lee1	1Sung Kyun Kwan University, 2J. Nehru Certre for Advanced Scientific Research
5-22	Growth and Lattice Strain of SrTiO3/(Sr1-x,Lax)TiO3 Superlattice Grown by Laser Molecular Beam Epitaxy	Juho Kim, Leejun Kim, Dongguen Jung, and Jaichan Lee	Sungkyunkwan University
5-23	Reversible Resistive Switching of Cr-doped SrTiO3 Thin Films Deposited by Pulsed Laser Deposition	Chul-Ho Jung, Taekjib Choi, Le Tran, and Jaichan Lee	Sungkyunkwan University
5-24	Perpendicular Exchange Bias of TbFeCo/FePt Multilayer for High Density Magnetic Random Access Memory Application	Hojun Ryu and Dongwoo Suh	Electronics and Telecommunication Research Institute
5-25	The Electrical Properties of ZrO2 Based Metal-Insulator-Metal Capacitors	Anna Park, K. Prabakar, and Chongmu Lee	Inha University
5-26	The Effects of Thermal Treatment and Ge Contents on Interfacial Properties of ZrO2 Thin Films on SiGe Layers	Hoon Sang Choi1,2, Jae Sung Hur2, Sung Ju Tark2, Sangyul Baek2, Lee, Jeong Seop2 , Chang-Sik Son3, and In-Hoon Choi2	1RIKEN (The Institute of Physical and Chemical Research), 2Korea University, 3Silla University
5-27	Study of Metal Doping Effect on the Ge2Sb2Te5 : Phase Change Materials	Tae-Jin Park, Myung-Jin Kang, and Se-Young Choi	Yonsei University

Diagnostics of Plasma and Reaction Surface

5-28	Electron Energy Distribution Function in High Power Pulsed Magnetron Sputtering Source and Electron Density Change	J. H. In1, S. H. Seo1, H. Y. Chang1, and J. G. Han2	1Korea Advanced Institute of Science and Technology, 2Sungyunkwan University
5-29	Diagnostics of CF2 Radical and Molecules in Non-equilibrium Atmospheric Pressure-Pulsed Plasma for SiO2 Etching	M. Iwasaki1, M. Ito2, T. Uehara3, and M. Hori1	1Nagoya University, 2Wakayama University, 3 Sekisui Chemical

5-30	Suppression of Energetic Species Flux to Substrate by Combination of VHF and DC Power in Magnetron Plasma	Y. Sakashita, Y. Takagi, H. Toyoda, and H. Sugai	Nagoya University
5-31	Energetic Particle Flux Suppression on Substrate Using Cylindrical Magnetron for High Quality Film Deposition	Y. Takagi, Y. Sakashita, H. Toyoda, and H. Sugai	Nagoya University
5-32	Conformal Deposition of Ti Films in Fine-Patterns Using a High-Pressure Magnetron Sputtering Plasma Source	N. Nafarizal1, N. Takada1, K. Nakamura2, Y. Sago3, and K. Sasaki1	1Nagoya University, 2Chubu University, 3ANELVA Corporation
5-33	Study of RF Magnetron Plasma Characteristics for Metal Oxide Deposition	Joyanti Chutia, A.R. Pal, B.K. Sarma, and H. Bailung	Institute of Advanced Study in Science & Technology.
5-34	Behavior of Nitrogen Atom in High Density Plasma in Rare Gas / Nitrogen Mixture	T. Okada, T. Ishijima, Y. Honda, and H. Sugai	Nagoya University
5-35	Plasma Parameters in the Vicinity of the Quartz Window of a Low Pressure Surface Wave Plasma Produced in O2	S. Nakao, E. Stamate, and H. Sugai	Nagoya University
5-36	Stabilization of Radical Density in Fluorocarbon Plasmas	K. Nakamura1, K. Kumagai1, T. Tatsumi2, and K. Oshima2	1Chubu University, 2Sony Corporation
5-37	Plasma Diagnosis in Formation of Ultra Water Repellent Thin Films by PECVD Method	Y.S. Yun, N. Shimazu, E. Oriyama, T. Yoshida,Y. Inoue, N. Saito, and O. Takai	Nagoya University
5-38	Electron Temperature Determination by Optical Emission Spectroscopy in inductively Coupled Plasmas	Yi-Kang Pu, Xi-Ming Zhu, and Zhi-Gang Guo	Tsinghua University
5-39	Ion Species Analysis with Quadrupole Mass Spectrometry in Ar/Cl2 Inductively Coupled Plasma for the Estimation of Etching Mechanism	J. G. Kim1, G. H. Kim1, C. I. Lee2, T. H. Kim3, and C. I. Kim1	1Chung-Ang University, 2Ansan College of Technology, 3Yeojoo Technical College
5-40	A Novel Frequency Compensated Langmuir Probing Technique for Measuring Helicon Plasma Parameters	S.N.Ghosh1, D.Bora2, Jinsu Yoo1, M.Gowtham1, I.Parm1, and Junsin Yi1	1Sungkyunkwan University, 2Insitute of Plasma Research

Flat Panel

5-41	Electrical Characteristics of Poly(3-hexylthiophene) Organic Thin Film Transistor with Electroplated Metal Gate Electrodes on Polyimide	Y. G. Seol, J. G. Lee, and N.-E.Lee	Sungkyunkwan University
5-42	Effects of Surface Modification for Organic Light-Emitting Diodes Treated by Inductively Coupled O2 Plasma	C. H. Jeong, J. H. Lee, K. S. Min, J. T. Lim, and Geun Young Yeom	Sungkyunkwan university
5-43	Admittance Spectroscopic Analysis of Organic Light Emitting Devices with a LiF Buffer Layer at the Cathode/Organic Interface	U.Manna,H.M.Kim, Sunyoung Sohn,Donggeun Jung, and J.Yi	Sungkyunkwan University
5-44	Synthesis and Blue Electroluminescent Properties of Zinc(II)[2-(2-hydroxybenzoxazole)]	WonSam Kim1, JungMinYou1, EunMi Son1, Burm-Jong Lee1, Yoon-Ki Jang2, and Young-Soo Kwon1	1Inje University, 2Dong-A University

5-45	White OLEDs Based on Novel Emissive Materials as Zn(HPB)2 and Zn(HPB)q	Yoon-Ki Jang1, Oh-Kwan Kwon1, Burm-Jong Lee2, and Young-Soo Kwon1	1Dong-A University, 2Inje University
5-46	Study on Improvement of OLEDs Properties using Zn(phen)q	Dong-Eun Kim1, Won-Sam Kim2, Oh-Kwan Kwon1, Burm-Jong Lee2, and Young-Soo Kwon1	1Dong-A University, 2Inje University
5-47	Synthesis and Photophysical Studies of a New Phosphorescent Iridium(III) Quinazoline Complex	Y. H. Lee, Y. H. Park, G. Y. Park, N. G. Park, and Y. S. Kim	Hongik University
5-48	Efficient Red-Emitting Phosphorescent Iridium(III) Complexes of Fluorinated 2,4-Diphenylquinolines	Y. H. Park, Y. H. Lee, G. Y. Park, N. G. Park, and Y. S. Kim	Hongik University
5-49	Phosphorescent Hetero-Iridium(III) Complex Containing Phenylpyridine and 1-(4'-fluorophenyl)benzoquinoline Ligands	G. Y. Park, Y. H. Park, Y. H. Lee, and Y. K. Ha	Hongik University
5-50	Organic Light-Emitting Devices with a Mixed Layer Acting as Hole Transport and Emitting/Electron Transport Layers	Y. B. Yoon1, T. W. Kim1, H. W. Yang1, J. H. Seo2, J. H. Kim2, and Y. K. Kim2	1Hanyang University, 2Hong-ik University
5-51	Luminescence Mechanisms of Highly Efficient Organic Light-Emitting Devices Fabricated Utilizing Stepwise Doped Hole Transport Layers	H. W. Yang1, Y. B. Yoon1, D. U. Lee1, T. W. Kim1, J. H. Kim2, J. H. Seo2, and Y. K. Kim2	1Hanyang University, 2Hong-ik University
5-52	Highly Efficient Organic Light-Emitting Diodes Fabricated Utilizing NiO Buffer Layers between Anodes and Hole Transport Layers	H. C. Im1, D. C. Choo1, T. W. Kim1, J. H. Kim2, J .H. Seo2, and Y. K. Kim2	1Hanyang University, 2Hong-ik University
5-53	Optical and Electrical Properties of p-Type Transparent Conducting CuAlO2 Thin Film	Dae-Sung, Kim and Se-Young, Choi	Yonsei University
5-54	Preparation of Transparent Conductive Thin Films by RF Magnetron Sputtering	Sung Ju Tark, Mingu Kang, Sang-yul Baek, and Donghwan Kim	Korea university
5-55	The Properties of Post-Annealing Al-Doped ZnO by RF Magnetron Sputtering	Sang-yul Baek, Lee, Jeong Seop, Jae-sung Hur, Sung ju Tark, Byoung-hoon Lee, and In-hoon Choi	Korea University
5-56	Improved SiO2 Film Deposited by APCVD using TEOS/O3	Jun-Sik Kim, I. Parm, and Jun-Sin Yi	Sungkyunkwan University
5-57	Aluminum Doped zinc Oxide Films Deposition Using Inductively-Coupled Plasma Assisted Magnetron Sputtering	Y.Nagano ,S.Iwai ,M.Shinohara ,Y.Matsuda, and H.Fujiyama	Nagasaki University
5-58	HfO2 Gate Insulator Formed by Atomic Layer Deposition for Thin-Film-Transistors	S. -W. Jeong1, H. J. Lee1, K. S. Kim1, M. T. You1, Y. Roh1*, T. Noguchi2, W. Xianyu2, and J. Jung2	1Sungkyunkwan University, 2Samsung Advanced Institute of Technology
5-59	The Effects of New Penning Gas in an AC-PDP	B. K. Joung, J. S. Kim, S. O. Kwon, and H. J. Hwang	Chung-Ang University
5-60	Effect of Additives to MgO Protective Layer for AC-PDP	Jin-Woo, Kim, Sung-Jin, Park, and Se-Young, Choi	Yonsei University

5-61	Correlation between Density and Surface Crystal Orientation of MgO Protective Layer in AC-PDPs	H. J. Lee, C. G. Son, J. M. Jeoung, J. W. Hyun, S. O. Kang, and E. H. Choi	Kwangwoon University
5-62	Wall Charge Characteristics in Accordance with Square and Ramped Reset Pulse in AC-PDP	Soo Beom. Lee, J. M. Jeoung, B. D. Ko, P. Y. Oh, M. W. Moon, K. B. Song, J. H. Lee, J. E. Lim, H. J. Lee, Y. G. Han, N. L. Yoo, S. H. Jeoung, C. G. Son, and E. H Choi	Kwangwoon University

Nano Technologies and Bio-applications

5-63	Multi-scale Computational Framework for Processing of Carbon Nanotubes	Kwang Hee Kim1, Hyuk Soon Choi1, Ki-Ha Hong1, Jongseob Kim1, Hyo Sug Lee1, Jai Kwang Shin1, A. V. Vasenkov2, A. I. Fedoseyev2, and Vladimir Kolobov2	1Samsung Advanced Institute of Technology, 2CFD Research Corporation
5-64	Enhanced Photovoltaic Effects by Carbon Nanotube Functionalized with CdS	Yoonmook Kang and Donghwan Kim	Korea University
5-65	Electrospun Carbon Nanotubes / Polyvinyl Alcohol (PVA) Composite Nanofibers	Jin-Su Jeong, Jin-San Moon, and Ji-Beom Yoo	Sungkyunkwan University
5-66	A Studies on High Yield and Large-Scale Synthesis of Single-Walled Carbon Nanotubes by Catalytic Chemical Vapor Deposition Method	J. S. Kim, O. J. Yoon, J. K. Jung, and C. I. Kim	Chung-Ang University
5-67	Nano-size Domain Formation and Switching in Ferroelectric PbZrO3/PbTiO3 Artificial Superlattice Fabricated by Pulsed Laser Deposition	Taekjib Choi1, Jin-Sik Choi2, Bae Ho Park2, Hyunjung Shin3, and Jaichan Lee1	1Sungkyunkwan University, 2Konkuk University, 3Kookmin University
5-68	Fabrication of Si Nano-Wire MOSFET for High-Sensitivity Photodetector Applications Using Reactive Ion Etching	Young-Shik Shin1, Sang-Ho Seo1, Mi-Young Do1, Jang-Kyoo Shin1, Jae-Hyoun Park2, and Hoon Kim2	1Kyungpook National University, 2Korea Electronics Technology Institute
5-69	Fabrication of Nano Structure using Block Copolymer for Non-Volatile Memory	Sungwook Jung1, M. Gowtham1, Dae-Ho Park2, Byeong-Hyeok Sohn3, Jin Chul Jung2, Wang Cheol Zin2, I.O.Parm1, and Junsin Yi1	Sungyunkwan University, 2Pohang University of Science and Technology, 3Seoul National University
5-70	Field-Emission Characteristics of Diamond-Like Amorphous Carbon Films Deposited by Mixed Gas (N2 or H2) Controlled i-C4H10 Supermagnetron Plasma	Haruhisa Kinoshita and Manabu Yamashita	Shizuoka University
5-71	Submicron Optical Near Field Diffraction Patterns Obtained by Irradiation of Octadecyltrimethoxysilane Self-Assembled Monolayers with Light at 157 nm	F. A. Nae, N. Saito, and O. Takai	Nagoya University
5-72	Realization of Various Sub-Micron Metal Patterns Using Room Temperature Nanoimprint Lithography	Jun-Ho Sung, Kyung-Jin Lim, Seung Gol Lee, Se-Geun Park, El-Hang Lee, and Beom-Hoan O	Inha University
5-73	Bicrystalline Gallium Oxide Nanobelts	Hyoun Woo Kim*, Ju Hyun Myung, and Seung Hyun Shim	Inha University
5-74	Growth and Characteristics of Tin Oxide Belt-Like and Sheet-Like Structures	Hyoun Woo Kim*, Seung Hyun Shim, and Ju Hyun Myung	Inha University
5-75	Surface Modification of Poly(dimethyl siloxane) (PDMS) for Controlling Biological Cells' Adhesion Using a Scanning Radical Microjet	Helen M. L. Tan1, H. Fukuda2, T. Akagi1, and T. Ichiki1,3	1University of Tokyo, 2Toyo University, 3PRESTO, Japan Science and Technology Agency

	5-76	Amperometric Biosensor Based on Direct Electrochemistry of Hemoglobin in Poly-Allyl Amine (PAA) Films	A.K.M. Kafi, Hoon-Kyu Shin, and Young-Soo Kwon	Dong-A University
	5-77	Fabrication of the Magnesium Films for Drug Delivery System	Sung Joon Park, H. J. Kang, J.B. Yoo, and D. J. Kim	Sungkyunkwan University
	5-78	Controlled Drug Release using Nanoporous Anodic Aluminum Oxide on Stent	Ho-Jae Kang1, Sung-Joon Park1, Ji-Beom Yoo1 Deug Joong Kim1, and Y.S.Ryu2	1Sungkyunkwan University, 2R&D Center HUMED Ltd.
	5-79	Study on Electrical Conduction of Viologen Derivatives Using Scanning Tunneling Microscopy	Nam-Suk Lee1, Oh-Kwan Kwon1 , A.K.M. Kafi1, Dong-Jin Qian2, and Young-Soo Kwon1	1Dong-A University, 2Fudan University
	5-80	Charge-Transfer Interaction of Viologen Derivation Using Electrochemical QCM Method	Dong-Yun Lee1, Hoon-Kyu Shin1, Dong-Jin Qian2, and Young-Soo Kwon1	1Dong-A University, 2Fudan University

Tuesday, November 29, 2005

Session 6 — Low-k and Dual Damascene Integration Arranged Session (Ballroom 1 (2F))

Chair person: T. Tastumi (SONY Corp.)

8:30	6-01	(Invited) Highly Selective SiOC/Si3N4 and Si3N4/SiOC Etching by Precision Energy Control for Dual Damascene Formation	Hisataka Hayashi, Itsuko Sakai, and Tokuhisa Ohiwa	Toshiba Corporation Semiconductor Company
8:55	6-02	(Invited) Low-Damage and High-Precision Dual-Damascene Patterning for Sub-65-nm Node Cu/Low-k Interconnects	K. Yonekura1, K. Yoshikawa1, Y. Fujiwara1, S. Sakamori1, N. Fujiwara1, T. Kosaka2, M. Ohkuni2, and K. Tateiwa2	1Renesas Technology, 2Matsushita Electric Industrial Co.

Chair person: N. Fujiwara (Renesas Technology Corp.)

9:20	6-03	Hard-Mask Etching Process Design for Dual Damascene Fabrication with porous SiOCH Films	H. Ohtake, M. Tada, M. Abe, M. Ueki, M. Tagami, S. Saito, and Y. Hayashi	NEC Corporation
9:40	6-04	Novel Self Aligned Dual Damascene Process Integration for 65nm Technology Node	M.Nagase, T.Maruyama, M.Iguchi ,M.Suzuki,M.Tominaga ,and M.Sekine	NEC Electronics Corporation
10:00	6-05	Sacrificial CVD Film Etch-back Technology for Air-Gap Cu Interconnects	Shoichi Uno, Kiyomi Katsuyama, Junji Noguchi, Kiyohiko Sato,Takayuki Oshima, Masanori Katsuyama, and Kazusato Hara	Hitachi
10:20		Break		

Chair person: T. Ohiwa (Toshiba Corp. Semiconductor Company)

10:35	6-06	(Invited) A Novel Organosiloxane Vapor Annealing Process for Improving Properties of Porous Low-k Films	K. Kohmura1, H. Tanaka1, S. Oike1, M. Murakami1, N. Fujii1, S. Takada2, T. Ono1, Y. Seino2, and T. Kikkawa2,3	1MIRAI-ASET, 2National Institute of Advanced Industrial Science and Technology, 3Hiroshima University

11:00	6-07	Influence of Atomic Hydrogen on Porous Low-k Dielectric for 45nm Node	K.Tomioka1, E.Soda1, N.Kobayashi1, M.Takata2, S.Uda2, K.Ogushi2, Y.Yuba2, and Y.Akasaka2	1Semiconductor Leading Edge Technologies, 2Osaka University
11:20	6-08	(Invited) Characterization and Integration of New Porous Low-k Dielectric (k<2.3) for 65nm Technology and Below	Kyeong-Keun Choi, Ihl Hyun Cho, Sang Jong Park, Jung Eun Lim, Oh Jin Jung, Jong Hyuk Park, Byung Seung Min, Sungbo Hwang, Min Jin Ko, and Jeong Gun Lee	MagnaChip Semionductor
11:45	6-09	Nano-particle Composite Porous Films Prepared by Plasma Chemical Vapor Deposition	Masaharu Shiratani1, Shota Nunomura2, Kazunori Koga1, Yukio Watanabe3, Yoshinori Morisada4, Nobuo Matsuki4, and Shingo Ikeda4	1Kyushu University, 2National Institute of Advanced Industrial Science and Technology, 3Kyushu Electric College, 4ASM Japan K. K.
12:05		Lunch		
Session 7		Diagnostics of Plasma and Surface Reaction (Ballroom 1 (2F))		
				Chair person: J. P. Booth (Ecole Polytechnique)
13:30	7-01	(Invited) Plasma/Reactor Walls Interactions in Gate Etching Processes	G. Cunge1, R. Ramos1, O. Joubert1, N.Sadeghi2, and M.Mori3	1Laboratoire des Technologies de la Microé lectronique, CNRS, 2Laboratoire de Spectrométrie Physique, CNRS-UJF, 3Hitachi central Research Laboratorv
14:05	7-02	(Invited) In-Situ Study of Plasma-Wall Interactions in Inductively Coupled Fluorocarbon Plasma	L. Overzet, M. Goeckner, E. Joseph, B. Zhou, and S. Sant	The University of Texas at Dallas
14:40		Break		
				Chair person: K. Horioka (Applied Materials Japan, Inc.)
14:55	7-03	(Invited) Laser-Induced Fluorescence Ion Diagnostics in Light of Plasma Processing	R. McWilliams1, E. A. Hudson2, and J. P. Booth3	1University of California, 2Lam Research, 3Ecole Polytechnique
15:30	7-04	Development of Frequency Shift Probe for Monitoring Electron Density in Plasma Reactor	S. Yajima1, K. Nakamura2, and H. Sugai1	1Nagoya University, 2Chubu University
15:50	7-05	Electron Heating Mechanism in a Planar Surface Wave Plasma Source	A. Kono, T. Otsuki, L Li, J. Kobayashi, and M. Aramaki	Nagoya University
Session 8		Flat Panel Arranged Session (Ballroom 2 (2F))		
				Chair person: G. Y. Yeom (Sungkyunkwan University)
9:20	8-01	(Invited) Advanced LTPS Technology for AM Displays	Jin Jang, Jun Hyuk Cheon, and Jae Hwan Oh	Kyung Hee University
9:45	8-02	(Invited) Electromagnetic Sources of Nonuniformity in Large Area Capacitive Plasma Reactors	A. A. Howling1, L. Sansonnens1, Ch. Hollenstein1, and J. P. M. Schmitt2	1Ecole Polytechnique Federale de Lausanne (EPFL), 2Unaxis Displays

10:10	8-03	(Invited) Low-Temperature Process for Advanced FPDs	Hidejiro Kobayashi	Advanced LCD Technology Development Center
10:35	8-04	Thermal and Optical Properties of CuO Doped Bi2O3 Base System for Transparent Dielectric Layer	J. Y. Song, E. K. Jeong, J. E. Park, and S. Y. Choi	Yonsei University
10:55		Break		
				Chair person: K. Azuma (Advanced LCD Technologies Development Center Co. Ltd.)
11:10	8-05	(Invited) Maskless Laser Imaging Technology for FPD Patterning	K.R.Kim1, H.S. Kang1, S.K. Hong1, and S.W. Min2	1LG Electronics, 2HardRAM
11:35	8-06	Effects of Operating Voltage Waveforms and Power Control Methods on the Light Emission from a Xe Plasma Flat Lamp	Hyuk-Hwan Kim and Won-Jong Lee	Korea Advanced Institute of Science and Technology
11:55	8-07	(Invited) Key Issues for Large-Area a-Si TFT-LCD Using Low Temperature Processes on PES Plastic Substrate	MunPyo Hong, Sang Il Kim, Woo Jae Lee, Sung Jin Kim, Wang Su Hong, Hyung Il Jeon, Tae Yong Hwang, Jae Hyun Cho, and Kyuha Chung	Samsung Electronics
12:20		Lunch		
Session 9		CVD (Ballroom 2 (2F))		
				Chair person: M. Shiratani (Kyushu University)
13:30	9-01	Suppression of Hydrogen Ion-Drift into Underlying Layers Using p-SiOxNy Film during High Density Plasma-Chemical Vapor Deposition	T. Murata, T. Yamaguchi, M. Sawada, S. Shimizu, K. Asai, H. Miyatake, and M. Yoneda	Renesas Technology Corporation
13:50	9-02	Growth of Crystallized Ge Films from VHF Inductively-Coupled Plasma of H2-Diluted GeH4	Tsutomu Sakata, Hideki Murakami, Seiichiro Higashi,and Seiichi Miyazaki	Hiroshima University
14:10	9-03	Epitaxial Lithium Niobate Film Growth by Metalorganic Chemical Vapor Deposition	Y. Akiyama1, K. Shitanaka1, H. Murakami1, Y.S. Shin2, M. Yoshida2, and N. Imaishi2	1Tokai University, 2Kyushu University
				Chair person: J. W Shon (JuSung Engineering Corporation)
14:30	9-04	The Investigation of Ni Thin Film by Atomic Layer Deposition	K.W. Do, C.M. Yang, I.S. Kang, K.M. Kim,K.H. Back,H.I. Cho, H.B. Lee,S.H. Kong, S.H.Hahm, J.H.Lee, and J.H. Lee	Kyungpook National University
14:50	9-05	Ni-Silicide Precursor for Gate Electrode	M. Ishikawa1, I. Muramoto1, H. Machida1, S. Imai2, A. Ogura2, H. Suzuki3, and Y. Ohshita3	1Tri Chemical Laboratories, 2Meiji University, 3Toyota Technological Institute
Session 10		Poster Session 2 (Convention Lobby, 16:10-18:00)		

Chair person: H. Ohtake (NEC Corp.), J.H. Boo (Sungkyunkwan University)

Surface Reaction

10-01	Profile Simulation of High Aspect Ratio Contact Etch	Doosik Kim, Eric Hudson, David Cooperberg,Erik Edelberg, and Mukund Srinivasan	Lam Research Corporation
10-02	MD Simulations of Amorphous SiO2 Thin Film Formation in Reactive Sputtering Deposition Processes	M. Taguchi1,2 and S. Hamaguchi1	1Osaka University, 2Nippon Sheet Glass
10-03	Molecular Dynamics Simulation Analyses on Injection Angle Dependence of SiO2 Sputtering Yields by Fluorocarbon Beams	Tomohito Kawase and Satoshi Hamaguchi	Osaka University
10-04	Investigation of the Ion Dose Non-Uniformity Caused by Sheath Lens Focusing Effect on Silicon Wafers	N. Holtzer, E. Stamate, H. Toyoda, and H. Sugai	Nagoya University
10-05	Improvement of Film Roughness by Distinctive Ion Energy Distribution In Grid Attached Unbalanced Magnetron	J. H. In1, M. J. Jung2, H. Y. Chang1, and J. G. Han2	1Korea Advanced Institute of Science and Technology, 2Sungyunkwan University
10-06	Plasma Assisted Nitriding of Al-Mg Alloy in an EBEP Device	T. Hishida and T. Hara	Toyota Technological Institute
10-07	Dry Cleaning Process using N2H2 Plasma for 70nm Contact Hole Etch and Beyond	Jun-Hee Cho, Tae-Woo Jung, Jin-Ki Jung, Seok-Kiu Lee, Yun-Seok Cho,Dong-Duk Lee, Seung-Chan Moon, and Jin-Woong Kim	Hynix Semiconductor
10-08	Organic Contaminants Removal by Oxygen ECR Plasma	Sookjoo Kim and Chongmu Lee	Inha University
10-09	Surface Reactions in Non-thermal Plasma-Catalyst Hybrid Systems During NOx Removal	M. Dors1, G.V. Nichipor2, Y.S. Mok3, and J. Mizeraczyk2	1Polish Academy of Sciences, 2National Academy of Sciences of Belarus, 3Cheju National University
10-10	Effect of RF Bias Voltage on Crystallinity of TiO2 Thin Films Produced by Reactive Sputtering in an ECR Plasma	Yasuro Nakagawa1, Toyohisa Asaji2, Yushi Kato2, Fuminobu Sato2, and Toshiyuki Iida2	1Toyama Prefectural University, 2Osaka University

Etching and Doping

10-11	Effect of Radical-Distribution Control on Etching-Profile Uniformity in Dielectric Etching	Hiroyuki Kobayashi1, Ken'etsu Yokogawa1, Kenji Maeda1, Tadamitsu Kanekiyo2, and Masaru Izawa1	1Hitachi, 2Hitachi High-Technologies Corp.
10-12	Extension and Improvement on Dielectric Etch Process through Continuous Hardware Innovation	T. Shin, J. Liu, R. Lindley, J. Kim, A. Joshi, W. Wu, S. Shoji,H. Noorbakhsh, Dan Hoffman, B. Pu, and T. Detrick	Applied Materials
10-13	Controlling Gate-CD Uniformity by means of a CD Prediction Model and Wafer-temperature-distribution Control	S. Kanno1, G. Miya1, J. Tanaka1, T. Masuda1, K. Kuwahara2, M. Sakaguchi2, A. Makino2, T. Tsubone2, and T. Fujii2	1Hitachi, Ltd., Central Research Laboratory, 2Hitachi High-Technologies Corp.

10-14	Advanced Gate Etch Processing Utilizing Dynamic Wafer Temperature Control	T. Panagopoulos, N. Gani, T. Kropewnicki, A. Matyushkin, M. Shen, J. Holland, and T. Lill	Applied Materials
10-15	Study of Silicon Etching by CF4-based Neutral Beam	B. J. Park1, C. K. Oh1, J. H. Lim1, M. S. Kim1, D.H.Lee2, and G. Y. Yeom1	1Sungkyunkwan university, 2Samsung Electronics
10-16	Silicon Recess Reduction with Source-Driven HBr/O2 Overetch and Lam Advanced Gate Additive	D. Humbird, S. Sriraman, L. Braly, and C. Lee	Lam Research Corporation
10-17	Highly Selective W Etching by using Advanced Microwave Plasma Source with RLSA	T. Nishizuka1, C. Tian1, S.Y. Kang1, T. Nozawa1, T. Goto2, and T. Ohmi2	1Tokyo Electron, 2Tohoku University
10-18	Micro-Loading Effect of WSi Gate Etch for Beyond 90nm DRAM Technology	Kuo-chung Chen, Jen-jui Huang, Chih-ching Lin, Chang-ming Wu, Tse-yao Huang, and Jengping Lin	Nanya Technology Corporation
10-19	High Performance SiO2 Etching in Low Pressure Using Very High Frequency Capacitively Coupled Plasma	Y.K.Cho1, K. K. Chi1, C.J.Kang1, and W.S.Lee2	1Samsung Electronics, 2Applied Materials
10-20	Multi-Layer Amorphous Carbon Hardmask Open in Capacitive Coupling High Frequency Plasma Dielectric Etch Chamber	Judy Wang, Shing-li Sung, Zhifeng Sui, Joshua Tsui, Shawming Ma, and Bryan Pu	Applied Materials
10-21	Comparison of C4F6-Based and C4F8-Based Etch Chemistries for SiO2 Etching with ArF Photoresist Using Dual Frequency Superimposed Capacitive Coupled Plasmas (DFS-CCP)	C. H. Lee, C. K. Park, and N.-E.Lee	Sungkyunkwan University
10-22	Silicon Etching in SF6 Radio-Frequency Discharge: Electrode Structure and Etching Rate	I. O. Parm, S. K. Dhungel, and J. Yi	Sungkyunkwan University
10-23	Effects of N2 Addition during Chemical Dry Etching of Silicon Nitride and Oxynitride Layers in NF3/N2/Ar Remote Plasmas	D. J. Kim1, J. Y. Hwang1, N.-E. Lee1, Y. C. Jang2, and G..Bae2	1Sungkyunkwan University, 2Shihwa Indus. Com.
10-24	Infinite Etch Selectivity of Doped-ZnO Layers to Photoresist during CH4/H2/Ar Inductively Coupled Plasma Etching	M.H. Shin, M.S.Park, S.H.Jung, J.H.Boo, and N.-E.Lee	Sungkyunkwan University
10-25	Process Window for Infinite Etch Selectivity of Silicon Nitride to ArF PR in Dual- Frequency CH2F2/H2/Ar Capacitively Coupled Plasmas	C.K.Park, C.H.Lee, and N.-E.Lee	Sungkyunkwan University
10-26	Dry Etching Characteristics of LiNbO3 Crystal for Optical Waveguide Fabrication	W. J. Park1, W. S. Yang1,2, and D. H. Yoon1	1Sungkyunkwan University, 2Korea Electronics Technology Institute
10-27	Dry Etching of Magnesium Oxide Thin Films by Using Inductively Coupled Plasma for Buffer Layer of MFIS Structure	G. H. Kim and C. I. Kim	Chung-Ang University
10-28	Dependence of Junction Depth of BF3 Pulse Plasma Ion Implantation on Pulse Voltages	Ji-Hyun Hur1, Gyeong-Su Keum2, Jae-Joon Oh1, Jaihyung Won2, and Jai-Kwang Shin1	1Samsung Advanced institute of technology, 2Samsung Electronics

Deposition

10-29	Gas Feed Position Control for High-Quality μc-Si Film Deposition at High Speed in Surface Wave Plasma	Y. Hotta, T. Okayasu, Y. Takanishi, H. Toyoda, and H. Sugai	Nagoya University
10-30	Height Effects of Substrate on the Uniformity of Deposition in the PECVD reactor	Young-Wan Kim and Youn-Jea Kim	Sungkyunkwan University
10-31	Substrate Temperature Dependence of Deposition Rate in Anisotropic Plasma CVD of Cu	Takao Kaji1, Kazunori Koga1, Masaharu Shiratani1,Yukio Watanabe1, Tomohiro Kubota2, and Seiji Samukawa2	1Kyushu University, 2Tohoku University
10-32	Correlation between SiO2 Film Properties and Frog-Egg Defect in High Density Plasma Chemical Vapor Deposition	S. G. Koh1, J. H. Han1, J. W. Shon1, C. S. Kim1, D. B. Kang1, J. H. Yoo1, Y. H. Lee1, S. H. Baek1, S. H. Seo1, B. J. Jin2, G. S. Lee2, J. H. Kim2, J. H. Lee2, and G. S. Jung2	1Jusung Engineering, 2Hynix Semiconductor
10-33	Comparison of C4F6 and C5F8 as Source Precursor for a-C:F Film Deposition	H. Watanabe1, Y.Egashira2, and Y. Shimogaki2	1University of Tokyo, 2Osaka University
10-34	Numerical Study of Ion Deposition in Plasma CVD on Substrates with a Trench Shape	M. Ohnishi, H. Osawa, and K. Yokota	Kansai University
10-35	Physical Properties of DLC Film on a Trench by Plasma CVD	H.Nozaki, M. Ohnishi, H. Osawa, T. Sugimoto, A. Mori, K. Nakamura, and K. Yokota	Kansai University
10-36	Effects of Magnetic Field and Substrate Bias Voltage on DLC Films Prepared by PECVD	H.Shimada and H.Fujiyama	Nagasaki University
10-37	Improved Crystallization Characteristics of ZnO Thin Film Grown onto DLC Film Used as a Buffer and Support Layer	Eung Kwon Kim, Tae Yong Lee, Yong Seob Park, Byungyou Hong, Young Sung Kim, and Joon Tae Song	Sungyunkwan University
10-38	Characterization of Ultra Water-Repellent Thin Films by PECVD Method	E. Oriyama, Y.S. Yun, T. Yoshida, T. Shimazu, H. Saito, Y. Inoue, and O. Takai	Nagoya University
10-39	Growth of VO2 Films with Metal-Insulator Transition on Silicon Substrates in Inductively Coupled Plasma-Assisted Sputtering.	Kunio Okimura and Naotaka Kubo	Tokai University
10-40	Sputter Deposition and Surface Treatment of TiO2 films for Dye-Sensitized Solar Cells using Reactive RF Plasma	H. Matsuura1, Y. M. Sung1, M. Otsubo1, C. Honda1, and H.J. Kim2	1University of Miyazaki, 2Pusan National University
10-41	PECVD Silicon Nitride and Vacuum Evaporated Magnesium Fluoride Films in Multicrystalline Silicon Solar Cells	Suresh Kumar Dhungel, M.Gowtham, Jinsu Yoo,Kyunghae Kim, and Junsin Yi	Sungkyunkwan University
10-42	Properties of PECVD Silicon Nitride for the Application ofμc-Si Solar Cell	Jinsu Yoo, S. K. Dhungel, M. Gowtham, S. N. Ghosh, and Junsin Yi	Sungkyunkwan University
10-43	Effect of Bias Voltage on Structural and Electrical Properties of ZnO Films Deposited by ECR-PECVD	M.J. Kang1, R. Tap2, S. Schoemaker2, M. Willert-Porada2, and S. Y. Choi1	1Yonsei University, 2University of Bayreuth
10-44	Control of Refractive Index and Core Shape for Silicon Nitride Waveguides Prepared by PECVD	D. H. Yoon1*, S. G. Yoon1, S. J. Suh1, H. Kim, and Y. T. Kim2	1Sungkyunkwan University, 2Samsung SDI Co., Ltd.

10-45	Carbon Incorporation Process in GaAsN Films Grown by Chemical Beam Epitaxy Using MMH or DMH as N Precursor	H. Suzuki, K. Nishimura, H. S. Lee, Y. Ohshita, I. Gono, N. Kojima, and M. Yamaguchi	Toyota Technological Institute
10-46	Light Illumination Induced Effects on GaAsN Thin Films Grown by Chemical Beam Epitaxy	H.S. Lee, K. Nishimura, H. Suzuki, Y. Ohshita, T. Imai, N. Kojima, and M. Yamaguchi	Toyota Technological Institute
10-47	Growth Condition of AlGaN/GaN Heterostructures for Enhanced Electrical Characteristics by MOCVD	J.H. Choi1, H.K. Park1, H.J. Kang2, J. Jhin1, S. Baek1, Y.S. Kwon1, J.-H. Lee, and D. Byun1	1Korea University, 2Epiplus
10-48	The Efficacy of ECR-CVD Silicon Nitride Passivation in InGaP/GaAs HBTs	L. B. Zoccal, J. A. Diniz, I. Doi, J. W. Swart, A. M. Daltrini, and S. A. Moshkalyov	Universidade Estadual de Campinas
10-49	Characterization of TiO-N Thin Films Manufactured by Sputtering with High Efficiency Cathode	J. S. Park1, T. W. Kim1, S. W. Park2, and W. S. Ahn2	1Mirae Engineering Vacuum Division, 2Keimyung University

Plasma Damage

10-50	Minimizing Plasma-Induced Charging Damage during Multi-Step Etching of Dual-Damascene Trench and Via Structures	Michael C. Kutney, Shawming Ma, Allen Zhao, Gerardo A. Delgadino, Daniel J. Hoffman, Keija Horioka, and Ashok Sinha	Applied Materials
10-51	Threshold Voltage Shift of Submicron p-Channel MOSFET due to Si Surface Damage from Plasma Etching Process	G. H. Kim1, C. I. Kim1, D. P. Kim2, Y. R. Kang2, H. J. Kim3, and S. Y. Kim4	1Chung-Ang University, 2KDG Engineering, 3Sindoricoh, 4DongbuAnam Semiconductor
10-52	Electron Beam Irradiation Effects in Surface and Subsurface Regions of Various Insulating Sapphires	Bo-Hyun Lee, Tokuyuki Teraji, and Toshimichi Ito	Osaka University

Equipment Technology

10-53	The need for Three Frequencies for Truly Independent Plasma Parameter Control	Steven Shannon, Daniel Hoffman, Jang-Gyoo Yang, and Valery Godyak	Applied Materials
10-54	Frequency-Dependent Characteristics of Plasma in a Dual-Frequency, 300 mm-Diameter Processing Chamber	G. Hebner1, E. Barnat1, P. Miller1, A. Paterson2, J. Holland2, T. Panagopoulos2, and T. Lill2	1Sandia National Laboratories, 2Applied Materials
10-55	Time Evolution of Electrode Voltage Distribution in Large-Area Capacitively Coupled Plasmas	Masaaki Matsukuma and Satoshi Hamaguchi	Osaka University
10-56	Plasma Characteristics by Magnetic Field Effect in Linearly Extended Inductively Coupled Plasma System	Kyong Nam Kim, Mi Suk Kim, and Geun Young Yeom	Sungkyunkwan university
10-57	Influence of RF Bias on Electrostatic Chuck Characteristics	G. Shim1, T. Yamauchi2, and H. Sugai1	1Nagoya University, 2Toshiba Corporation
10-58	Modeling of an Erosion Profile of Dielectric Target in an RF Magnetron Plasma for Sputter Deposition	T. Yagisawa1, S. Kuroiwa2, and T. Makabe1	1Keio University, 2Shibaura Mechatronics

10-59	Single Chamber Process for Carbon Nanotubes Growth Using Capacitive/Inductive Coupled RF plasmas	Y. M. Sung, M. Otsubo, and C. Honda	University of Miyazaki
10-60	Development of a High-Durability Atmospheric DC Arc Plasmatron	J. H. Kim1, Y. S. Mok1, C. K. Choi1, V. Yu. Plaksin1, V. A. Riaby2, and H. J. Lee1	1Cheju National University, 2General Physics Institute of the Russian Academy of Sciences
10-61	Investigation of Volt-Ampere Characteristics for the DC Arc Plasmatron of High Durability	H. J. Lee1, V. Yu. Plaksin1, and V. A. Riaby2	1Cheju National University, 2General Physics Institute of the Russian Academy of Sciences

New Dry Process Concept

10-62	Atmospheric Plasma-Calcination of Mesoporous Tungsten Oxide Utilizing Plasma Dielectric Barrier Discharge	Pavel Baroch, Junko Hieda, Nagahiro Saito, and Osamu Takai	Nagoya University
10-63	Field Emission Properties of Carbon Nanotubes Synthesized by Capillary Type Atmospheric Pressure Plasma Enhanced Chemical Vapor Deposition	Se-Jin Kyung, Maksym Voronko, Yong-Hyuk Lee Chan-Woo Kim, June-Hee Lee, and Geun Young Yeom	Sungkyunkwan Univ.
10-64	Simulation of Radio Frequency Microplasma in Ar Dielectric Barrier Discharge with Coplanar Electrodes	Fumiyoshi Tochikubo and Satoshi Uchida	Tokyo Metropolitan University
10-65	Discharge Mode Characteristics of Atmospheric RF Capacitive Discharges	S. Y. Moon, D. B. Kim, J. K. Rhee, and W. Choe	Korea Advanced Institute of Science Technology
10-66	Effects of Helium and Oxygen Mixing in Argon-Based Atmospheric Large Area Plasmas	J. K. Rhee, D. B. Kim, S. Y. Moon, and W. Choe	Korea Advanced Institute of Science Technology
10-67	Study of Small Size Atmospheric Plasma with a Pin to Plane Electrode Configuration	D. B. Kim, J. K. Lee, S. Y. Moon, and W. Choe	Korea Advanced Institute of Science Technology

MEMS

10-68	A Novel Deep Etching Technology for Si and Quartz Materials	Y. Morikawa, T. Koidesawa, T. Hayashi, and K. Suu	ULVAC
10-69	High Rate Deep Si Etching with SF6/O2/HBr/Ar in a Groovy ICP Reactor	T. Tsukada, M. Nomura, M. Ooya, K. Fujiwara, M. Yanagisawa, and G. K. Vinogradov	FOI Corporation
10-70	Deep Si Etching for Micro Mold Fabrication	Y. Matsumoto, J. Ishihara, H. Kawata, M. Yasuda, and Y. Hirai	Osaka Prefecture University
10-71	Controlling the Silicon Micro-grass in Fabrication of a Deeply Etched Silicon Mold using Adaptive Bosch Process	M.W. Lee, C.H. Choi, K.J. Lim, S.B. Jo, S.G.Lee, S.G. Park, E.H. Lee, and B.H. O	Inha University
10-72	Silicon Oxide Deposition by ECR Plasma for MEMS Applications	C. Biasotto, F. A. Boscoli, R. C. Teixeira, J. A. Diniz,A. M. Daltrini, S. A. Moshkalyov, and I. Doi	Universidade Estadual de Campinas

	10-73	Fabrication of Piezo-Driven Microactuator for Ink Jet Printing	Jangkwen Lee, Sanghun Shin, Pham Van So, and Jaichan Lee	Sung Kyun Kwan University
	10-74	Suspended Silicon Oxynitride Structures Fabricated by ECR Plasma and Wet Etching	C. Biasotto, J. A. Diniz, A. M. Daltrini, S. A. Moshkalyov,A. C. S. Ramos, and J. W. Swart	Universidade Estadual de Campinas
	10-75	Metal Electrode Fabrication Technologies on Non-Planar Surfaces	Ho Jung, Ik-Su Kang, Sung-Wook Jang, Byong-Jo Kwon,Chang Jin Kim, Sie-Young Choi, and Seong Ho Kong	Kyungpook National University
	10-76	Fabrication of Micro-scale Optical Power Splitter Using Soft Lithographic Technique	Chul Hyun Choi, Min Woo Lee, Beom-Hoan O*, Seung-Gol Lee, Se-Geun Park, and El-Hang Lee	Inha University
	10-77	Study on MEMS/NEMS Application Using Advanced Functional Thin Films	J. -S. Moon, J. -S. Hyun, J. -H. Park, J. W. Kim, and J. -H. Boo	Sungkyunkwan University
18:00		Break		
				Chair person: T. Ohiwa (Toshiba Corp. Semiconductor Company)
18:15		DPS2004 Award Presentation (Ballroom)		
18:30		Banquet (Ballroom)		

Wednesday, November 30, 2005

Session 11 — High-k and Metal Gate Etching (Tamna Hall (8F))

Chair person: M. Nakamura (FUJITSU LIMITED)

8:30	11-01	(Invited) Etching Properties of HfO Based High-K Gate Stack	W. J. Yoo	National University of Singapore
9:05	11-02	Plasma Enhanced Selective Removal of HfO2 Film with Low Si Substrate Damage for High-k Dielectric Poly-Si Gate Application	Leonard Hsu, Chung Ju Lee, Arthur Chen,H.L. Meng, S.F. Tzou, and S.W. Sun	United Microelectronics Corporation
9:25	11-03	Effect of SiO2 Mask on Surface Properties of Advanced Gate Stacks Using ICP of Cl2 / HBr	W. S. Hwang1, H. H. Ngu1, G. Zhang1, V. N. Bliznetsov2, and W. J. Yoo1	1National University of Singapore, 2Institute of Microelectronics
9:45	11-04	Dry Etch Processing of Multiple Gate FETs with Metal Gate Electrode	M. Demand, V. Paraschiv, D. Shamiryan, S. Beckx , W. Boullart, and S. Vanhaelemeersch	IMEC

10:05		Break		
Session 12		**New Dry Process Concept (Tamna Hall (8F))**		
				Chair person: A. Koshiishi (Tokyo Electron AT Ltd.)
10:20	12-01	(Invited) Design and Diagnostics of Atmospheric Pressure Plasma Jets	A. Schwabedissen1, M. Teschke2, J. Kedzierski2, and J. Engemann1,2	1JE PlasmaConsult GmbH, 2University of Wuppertal
10:55	12-02	Control of Substrate Surface Temperature in Millisecond Annealing Technique Using Thermal Plasma Jet	Tatsuya Okada, Seiichiro Higashi, Hirotaka Kaku,Naohiro Koba, Hideki Murakami, and Seiichi Miyazaki	Hiroshima University
11:15		Break		
Session 13		**MEMS (Tamna Hall (8F))**		
				Chair person: N. Ikegami (Oki Electric Industry Co., Ltd.)
11:25	13-01	Microfabricated Plano-convex Quartz Crystal Resonator using RIE	E. Sakata1, M. Esashi1, and T. Abe1,2	1Tohoku University, 2PRESTO, JST
11:45	13-02	Fabrication and Sensing Behavior of Highly Sensitive Piezoelectric Microbridge VOC Sensor	Sanghun Shin1, Joon-Shik Park2, Nae-Eung Lee1, and Jaichan Lee1	1Sungkyunkwan University, 2Korea Electronics Technology Institute
12:05	13-03	Fabrication and Characterizations of Out -of Plane Type Piezoelectric Micro Grippers Using Micro Cantilevers	Chang-Seong Jeon1,2, Joon-Shik Park*,1, Sang-Yeol Lee2, and Chan-Woo Moon1	1Korea Electronics and Technology Institute, 2Yonsei University
12:25		Lunch		
Session 14		**Nano Technologies and Bio-applications (Tamna Hall (8F))**		
				Chair person: M. Hori (Nagoya University)
13:30	14-01	(Invited) One-Dimensional Carbon and ZnO	J.M. Ting, K.H. Liao, T.L. Chou, and M.D. Chen	National Cheng Kung University
14:05	14-02	(Invited) Nanobiodevice: From Genomics/Proteomics to Medical Application	Yoshinobu Baba	Nagoya University
				Chair person: T. Ichiki (The University of Tokyo)

14:40	14-03	Fabrication of Fast DNA Separation Nano-Pillar Chips by Plasma Etching Technique	R. Ogawa, H. Ogawa, A. Oki, S. Hashioka, and Y. Horiike	National Institute for Materials Science
15:00	14-04	Fabrication of Dye Sensitized Solar Cell using TiO2 coated Carbon Nanotubes	Tae Young Lee, P. S. Alegaonkar, and Ji-Beom Yoo	Sungkyunkwan University
15:20	14-05	Rapid Growth of Dense, Aligned Single-Walled Carbon Nanotubes for Multi-Level Interconnections of Ultra-Large Scale Next-Generation Integrated Circuits	H. Nagao1, M. Hiramatsu1, H. Amano1, and M. Hori2	1Meijo University, 2Nagoya University
15:40		Closing Remarks	C.-K. Choi	Cheju National University