35th International Symposium on Dry Process (DPS 2013)

8/29

Time	Program	Session
7:30	Registration	
8:30	Plenary 1 G. Y. Yeom (SKKU) Atomic Layer Etching: Possible Application to Next Generation Nanoelectronic Device Fabrication	
9:20	Break	
9:50	Opening (Negishi)	
10:00	Young Researcher Award (Fujiwara)	
10:10	Nishizawa award lecture H. Okano	
10:20	Invited 1 T. Moriya (Tokyo Electron) Preventive Methods on Plasma Chamber Corrosions by Earthquake -Based from our Valuable Experience-	Session A Monitoring and Sensing
11:00	A. Matsuda (Kyoto Univ) μ-Photoreflectance spectroscopy for microscale monitoring of plasma-induced physical damage	Session A
11:20	A. Pandey (Chubu Univ) Opto-curling probe method for space-resolved measurement of electron and radical densities in plasma	Session A
11:40	A. P. Milenin (IMEC) Effect of Chuck Temperature Adjustment on STI CDU and Sensor Wafer Readouts	Session A
12:00	Lunch	
13:10	Invited 2 D. Kim (Samsung) Challenges and Opportunities of Dry Etching Technology for Future Semiconductor Developments	Session B Etching Technology
13:50	M. Matsui (Hitachi) Surface analysis for polysilicon gate etching process in pulsed microwave plasma	Session B
14:10	Y. Miyawaki (Nagoya Univ) Analysis of fluorocarbon gas plasma surface interactions using real-time / In-situ electron spin resonance	Session B
14:30	Y. Oshiki (Toshiba) SiO2 etch process using CHF3/HBr gas chemistry without roughening ArF photoresist employing DFS CCP RIE	Session B
14:50	E. Suzuki (Tokyo Electron) Highly Selective and Precisely- Controlled Etch-Rate Aluminum Etching by Ar/ HBr/ CH3F/ O2 gas chemistry	Session B
15:10	Break	
15:30	Invited M. Meyyappan (NASA) An Overview of Carbon Nanotubes and Graphene for Advanced Device Applications	<Joint Session> Plasma Based Processes for Graphene and Carbon Materials toward Device Application
16:00	Invited Won J. Yoo (SKKU) Plasma etching characteristics of hexagonal boron nitride for two dimensional electron devices	<Joint Session>
16:30	Invited S. Sato (AIST) Application of Graphene to Transistors and Interconnects for Future LSI s	<Joint Session>
17:00	Invited Nae-Eung Lee (Sungkyunkwan Univ) Ultrasensitive Physical and Biological Sensing Using Graphene Channel Field-Effect Transistors	<Joint Session>
17:30	Break	
17:40	M. Noma (Shinko Seiki) Improved hardness and electrical property of c-BN thin films by magnetically enhanced plasma ion plating technique	Session C Surface Treatment with High Pressure Plasma
18:00	T. Okumura (Panasonic) Recovery of Plasma-Induced Si Substrate Damage Using Atmospheric Thermal Plasma	Session C
18:20	S. Hayashi (Hiroshima Univ) Grain Growth Control during Leading Wave Crystallization Induced by Micro-Thermal-Plasma-Jet Irradiation to Amorphous Silicon Films	Session C
18:40		
18:50	Banquet	
20:20		

8/30

Time	Program	Session
7:30	Registration	
8:30	Plenary 2 K. Ono (Kyoto Univ) Plasma Etch Challenges for Nanoscale Device Fabrication: Modeling, Analysis, and Control of Plasma-Surface Interactions	
9:20	Break	
9:30	Invited 3 R. Martin (IBM) (Tentative)Spin torque switching of 20 nm magnetic tunnel junctions with perpendicular anisotropy	Session D <Arranged> Plasma Process for Emerging Non-Volatile Memory Devices
10:10	K. Kinoshita (Tohoku Univ) Plasma process induced physical damages on multilayered magnetic films for magnetic domain wall motion	Session D
10:30	R. Hinoura (Hyogo Univ) In-situ XPS study of GCIB etching for materials used in STT-MRAM	Session D
10:50	E. Nishimura (Tokyo Electron) Etching of Co-Pd with significantly reduced sidewall re-deposition	Session D
11:10	Break	
11:20	Poster Session	
12:50	Lunch	
13:50	Invited 4 H. Kim (Yonsei Univ.) The characteristics of plasma enhanced atomic layer deposition and applications to nanoscale device fabrication	Session E Plasma Process for 3D Device, FPD, Photovoltaic Devices
14:30	Y. Setsuhara (Osaka Univ) ICP-Enhanced Reactive Sputter Deposition Processes for Low-Temperature Formation of IGZO TFT	Session E
14:50	Y. Ding (Tokyo Institute of Tech) Performance enhancement of hybrid Si-nanocrystal/P3HT solar cells through hydrofluoric acid vapor treatment	Session E
15:10	Break	
15:20	Invited 5 E. Kunnen (IMEC) Dry etch challenges in EUV-based SRAM patterning beyond 20 nm	Session F <Arranged> Advanced Process Technology for Patterning beyond 20 nm Era
16:00	H. Yamamoto (Toshiba) Selective etch of poly(methyl methacrylate) in block copolymer employing dual frequency superimposed CCP for DSA lithography	Session F
16:20	N. Kofuji (Hitachi) Effect of Line-Edge-Roughness on Wiggling	Session F
16:40	Break	
16:50	K. Eriguchi (Kyoto Univ) Scenario of plasma-induced physical damage in FinFET - the effects of straggling of incident ions by a range theory -	Session G Plasma-induced Damage
17:10	M. Fukasawa (Sony) Comprehensive evidence-based guidelines for annealing plasma-damaged Si substrates – Impact of plasma process conditions –	Session G
17:30	M. Kamei (Kyoto Univ) Impacts of plasma-induced charging damage on random telegraph noise (RTN) behaviors in MOSFETs with SiO2 and high-k gate dielectrics	Session G
17:50	C. H. Chou (TSMC) The Effect of UV and High Energy VUV Photon Irradiation on CMOS Image Sensor	Session G
18:10	Closing Remarks (Hayashi)	
18:20		