Thursday, Mar. 28th, Poster Presentation

TH-01, Complementary Methodologies for Thin Film Characterization in One Tool – a Novel Instrumentation for 450 mm Wafers
Ina Holfelder[1], Philipp Hönicke[1], Andreas Nutsch[1,2], and Burkhard Beckhoff[1]
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TH-02, Soft X-Ray Characterization of DSA Block Copolymers
Daniel Sunday, Wen-Li Wu, and R. Joseph Kline
National Institute of Standards and Technology (NIST), Gaithersburg MD

TH-03, HAXPES for Non-Destructive Analysis of Chemistry at Buried Interfaces in Advanced Gate Stacks
Paul Risterucci[1], Eugénie Martinez[1], Rachid Boujamaa[2], Jörg Zegenhagen[3], Blanka Detlefs[3], Mickael Gros-Jean[2], Catherine Dubourdieu[4], and Olivier Renault[1]
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TH-04, Inline Thickness Metrology of Ni-Pt Thin Films for Low Resistance Ohmic Contacts
Lina S. Abdallah[1], Stefan Zollner[1], Christian Lavoie[2], Ahmet Ozcan[3], and Mark Raymond[4]
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TH-05, Charge-Based Capacitance Measurements Circuits for Interface with Atomic Force Microscope Probes
Joseph Kopanski, M. Yaqub Afridi, Chung Jeong, Michael Lorek, Timothy Kohler, and Curt. A. Richter
Semiconductor and Dimensional Metrology Division, National Institute of Standards and Technology, Gaithersburg, MD 20899, USA

TH-06, Vibrating Sample Magnetometry Study of High-Permeability Dielectrics on Nanomagnets
Peng Li[1], Gyorgy Csaba[1], Michael Niemier[2], X. Sharon Hu[2], Joseph J. Nahas[2], Wolfgang Porod[1], and Gary H. Bernstein[1]
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TH-07, Pore Size Evaluation of Low-κ Thin Films by Using X-Ray Porosimetry
Yong-Qing Chang, Bo-Ching He,Hsin-Chia Ho, and Wei-En Fu
Center for Measurement Standards, Industrial Technology Research Institute 321, Sec.2, Kuangfu Rd., Hsinchu, 30011, Taiwan

TH-08, New Experiments and Applications Made Possible by a Low Temperature 4-Tip STM with UHV-SEM Navigation
Andreas Bettac, Berndt Guenther, Juergen Koeble, Fred Henn, and Albrecht Feltz
Omicron NanoTechnology GmbH, Limburger Str. 75, D-65232 Taunusstein, Germany

TH-09, Local Measurements of Graphene Electronics Using Gate Mapping Tunneling Spectroscopy
Jungseok Chae[1,2], Yue Zhao[1,2], Suyong Jung[1,2,3], Andrea F. Young[4], Cory R. Dean[5,6], Lei Wang[6], Yuanda Gao6, Kenji Watanabe[7], Takashi Taniguchi[7], James Hone[6], Kenneth L. Shepard[5], Phillip Kim[4], Nikolai B. Zhitenev[1], and Joseph A. Stroscio[1]
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[4]Department of Physics, Columbia University
[5]Department of Electrical Engineering, Columbia University
[6]Department of Mechanical Engineering, Columbia University
[7]Advanced Materials Laboratory, National Institute for Materials Science

TH-10, Graphene as Transparent Electrode for Direct Observation of Hole Photoemission from Silicon to Oxide
Rusen Yan,[1,2], Qin Zhang[1,2], Oleg A. Kirillov[1], Wei Li[1,3], James Basham[1], Alex Boosalis[1,4], Xuelei Liang[3], Debdeep Jena[2], Curt A. Richter[1], Alan Seabaugh[2], David J. Gundlach[1], Huili G. Xing[2], and N. V. Nguyen[1]
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[4]Department of Electrical Engineering and Nebraska Center for Materials and Nanoscience, University of Nebraska-Lincoln, Lincoln, Nebraska 68588, USA

TH-11, Direct Measurement of the Intrinsic Dirac Point of Graphene
Kun Xu[1,2], Caifu Zeng[3], Qin Zhang[1,4], Rusen Yan[1,4], Peide Ye[2], Kang Wang[3], Alan C. Seabaugh[4], Huili Grace Xing[4], John S. Suehle[1], Curt A. Richter[1], David J. Gundlach[1], and N. V. Nguyen[1]
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[2]Purdue University, West Lafayette, IN
[3]University of California, Los Angeles, Los Angeles, CA
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TH-12, Revelation of Pattern Formation in Single Ferromagnetic CoFeB Film by Using the Giant Spin Hall Spin Torque
Wanjun Jiang, Pramey Upadhyaya, Li-Te Chang, Kin L. Wong, Jing Zhao, Tianxiao Nie, Murong Lang, Robert N. Schwartz, and Kang L. Wang
Device Research Laboratory, Electrical Engineering Department, University of California, Los Angeles, California, USA, 90095

TH-13, Measure the Charge Storage Speed and Endurance of Redox-Active Molecules
Hao Zhu[1, 2], Christina A. Hacker[2], Curt A. Richter[2], Hui Yuan[1,2], Haitao Li[1,2], Oleg Kirillov[2], Dimitris Ioannou[1], and Qiliang Li[1,2]
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[2]Semiconductor and Dimensional Metrology Division, National Institute of Standards and Technology, Gaithersburg, MD

TH-14, The Statistic Characteristics of Switching Parameters for Ta_2O_{5-X} Based RRAM
Haitao Li[1,2], Curt A. Richter[2], Oleg Kirillov[2], Hao Zhu[1,2], Hui Yuan[1,2], Qiliang Li[1,2]
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TH-15, Interactions Between Two Independently Contacted and Rotationally Aligned Graphene Layers
Christopher Corbet, Kayoung Lee, Babak Fallahazad, Emanuel Tutuc, and Sanjay Banerjee
The Microelectronics Research Center, The University of Texas at Austin, 10100 Burnet Road, Building 160, Austin Texas, 78758

TH-16, FinFET Sidewall Roughness Measurement and Correlation to Device Performance
A. F. Bello[1], Aaron Cordes[2], Abhijeet Paul[1], Shogo Mochizuki[3], Chun-Chen Yeh[4], and Huiming Bu[4]
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[3]Renesas, 257 Fuller Rd., Suite 3100, Albany, NY
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TH-17, Optical Scatterometry for In-Die Sub-Nanometer Overlay Metrology
Henk-Jan H. Smilde[1], Martin Jak[1], Arie den Boef[1], Mark van Schijndel[1], Murat Bozkurt[1], Andreas Fuchs[1], Maurits van der Schaar[1], Steffen Meyer[1], Stephen Morgan[1], Jon Wu[1], Vincent Tsai[1], Frida Liang[1], Cathy Wang[1], Kaustuve Bhattacharyya[1], Guo-Tsai Huang[2], Chih-Ming Ke[2], and Kai-Hsiung Chen[2]
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TH-18, CD-SAXS for 3D Dimensional Metrology on 32 nm Pitch Line Patterns
Daniel F. Sunday1, Wen-li Wu[1], Scott List[2], and R. Joseph Kline[1]
[1]Materials Science and Engineering Division, National Institute of Standards and Technology, Gaithersburg, MD 20899
[2]Intel Corporation, Hillsboro, OR 97124

TH-19, On Sub-10 nm 3D CD-SEM Metrology
András E. Vladár, John S. Villarrubia, Bin Ming, and Michael T. Postek
National Institute of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899-8212, USA

TH-20, CD Metrology Gaps Analysis from the 22 nm Node Onwards
Benjamin Bunday
SEMATECH, 257 Fuller Rd, Albany NY, 12203 USA

TH-21, Fabrication and Characterization of Standards for Atomic Force Microscope Tip Width Calibration
Ronald Dixson[1], Craig McGray[1], Boon Ping Ng[2], Ndubuisi G. Orji[1], and Jon Geist[1]
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[2]Singapore Institute of Manufacturing Technology, 71 Nanyang Drive, Singapore 638075

TH-22, Shallow Probe: Non-Destructive Compositional Metrology for Films and Structures
Mona P. Moret, Anna Meura, Anne-Sophie Robbes, and Michel Schuhmacher
CAMECA, 29 quai des Grésillons, 92 622 Gennevilliers, France

TH-23, Device-Level Electrical Characterization using Ferromagnetic Resonance of Magnetic Multilayers
Eric R. Evarts, Matthew R. Pufall, and William H. Rippard
Magnetics Group, Electromagnetics Division, NIST, 325 Broadway, Boulder, CO 80305