AIChE Annual Meeting, 2008

Monday, November 17, 2008
Electronics and Photonics (08e)
Room: Frankline 8

Topics In Plasma Science and Thin Film Applications - In Honor of Herbert Sawin

Chair: Jane P. Chang
CoChair: Sumit Agarwal

8:30 AM Past and Future of Modeling and Simulation for Plasma Processing
Demetre J. Economou

9:05 AM Atomistic Simulations of Feature Scale Etch Profile Evolution
David B. Graves, Joseph J. Vegh

9:40 AM Overcoming Patterning Challenges at the 32 Nm Nodes
Arpan Mahorowala

10:10 AM From the Sawin Lab to NASA: Uses of Very Long Vacuum Tubes
Brett A. Cruden

10:40 AM Highlights on Plasma-Surface Interactions – Honoring the Distinguished Career of
Herbert H. Sawin
Jane P. Chang

12:30 PM Plasma-Induced Structural Transitions In Materials
Eray S. Aydil, Michael Behr

1:05 PM Herb Sawin and DuPont: 25 Years of Cooperative Research and Development
Michael Mocella

1:40 PM Modeling Plasma-Surface Interactions and Their Role in Inducing Structural
Transitions
Dimitrios Maroudas

2:15 PM Reaction Mechanisms In Plasma Etching of High-K Materials
Jane P. Chang

2:45 PM Reception to AIChE Area 8e Special Symposium (Frankline 9)
Sponsored by MIT

3:15 PM Plasma Etching for Metal Gate Electrode Fabrication in Conventional and Sub-
Threshold Transistor Integration
Steven A. Vitale, Jakub Kedzierski, Nisha Checka, Craig L. Keast

3:45 PM Interface Preparation for High Mobility Substrates
Anthony J. Muscat

4:15 PM Applying Lessons Learned from An Etching Lab: The Role of O Atoms In PECVD
Colin A. Wolden

4:45 PM Polymer Nano-Texturing and Stochastic Nano-Patterning Using Plasma Processing
Evangelos Gogolides, Angeliki Tserepi, Nikos Vourdas, Maria Elena Vlachopoulou,
Katerina Tsougeni, Dimitrios Kontziampasis

5:15 PM CMP Pad Surface Analysis and the Components of Pad Surface Texture
Andrew S. Lawing