

## TENTATIVE AGENDA

### Symposium on Chemical-Mechanical Planarization August 13-16, 2006 Hilton Lake Placid Resort

#### Sunday, August 13:

- 12:00 - 5:00 P.M. Hotel Check-in and CAMP Registration
- 6:00 - 7:00 P.M. Cocktail Cruise Reception aboard the Doris (No formal dinner provided) (First 60 to sign up -need to be at Marina Dock by 5:45 P.M. at the latest)
- 6:15 - 7:30 P.M. Dancing Bears Lounge: For those arriving late – light hors d'oeuvres and a drink on CAMP

#### Monday, August 14:

- 7:00 - 8:00 A.M. Breakfast - Terrace Room

#### MEETING HELD IN MEDALLION ROOM

- 8:00 A.M. **S.V. Babu: Opening Remarks**

#### Session I

- 8:10 A.M. "CMP Challenges Beyond 65nm" -- Ying Li, IBM
- 8:35 A.M. "Defect Improvements for 50nm and Beyond" -- Gundu Sabde, Micron
- 9:00 A.M. "Slurry Engineering for Damage Free Cu-CMP Process"  
-- Dai Fukushima, Toshiba Corporation
- 9:25 A.M. "Cu Dissolution Inhibition, Planarization Efficiency and Passivation Film Structure"  
-- S.V. Babu, CAMP/Clarkson
- 9:45 A.M. Coffee Break

#### Session II

- 10:15 A.M. "Cu/low k CMP Extendibility" -- Paul Fischer, Intel Co. / Components Research
- 10:40 A.M. "Expanding the CMP Toolbox: Novel Selectivities using Ceria Based CMP Slurries"  
-- Brian Santora, Ferro
- 11:05 A.M. "Ceria STI Slurry and Chemical Endpoint for 70 nm Memory Applications"  
-- Brian Mueller, Patrick Flanagan, Sarah Lane, A. Scott Lawing and Kerry Lindemann, Rohm and Haas Electronic Materials CMP Technologies
- 11:30 A.M. "Study on the Loading Effect of Ceria Based Slurry on CMP Process"  
-- Jaegon Choi, Hynix
- 11:55 A.M. Discussion
- 12:00 P.M. Lunch - Terrace Room

#### Monday, August 14 Continued:

### Session III

- 3:20 P.M. "Theoretical Considerations for Cu e-CMP" -- Alan West, Columbia University
- 3:45 P.M. "New copper CMP Slurry Design and Applications"  
-- Karl Hensen and Daniel-KwoHung Shen, BASF Electronic Materials - Taiwan
- 4:10 P.M. "Universal Ceria Slurry System for Polishing Multiple Oxide Film Types"  
-- David Merricks, Ferro
- 4:35 P.M. "DSTI CMP Mechanism Using Modified Ceria Particles"  
-- James Shen, Cabot Microelectronics
- 5:00 P.M. "Material Removal Phenomena on Cu Wafer with Ultraviolet Light Irradiation Polishing" -- Keiichi Kimura, Kyushu Institute of Technology
- 5:30 – 7:00 P.M. [Poster Session/ Open Bar – Medallion Room \(note: day changed\)](#)
- 7:00 P.M. Dinner
- After Dinner Speaker: Jagannathan Rangarajan, Director, Technology Development, IBM – "Collaborative Innovation: IBM @ Albany Nanotech"

### Tuesday, August 15:

- 7:00 - 8:00 A.M. Breakfast -Terrace Room

### Session IV

- 8:05 A.M. "FEM Analysis II for Max. Stress Tendency and Fracture Analysis in the Damascene Structure of ITRS Technical Nodes 1)2)"  
-- Manabu Tsujimura, Ebara Corporation
- 8:30 A.M. "Frictional Characterization of ILD CMP Slurries Using Force Spectroscopy" -- Yun Zhuang, Araca, Inc.; Fransisca Sudargho, Araca Inc.; Geoff Steward, University of Arizona; Ara Philipossian, University of Arizona & Araca Inc.; Don Hooper and Jam Sorosshian, Intel Corporation
- 8:55 A.M. "New Pyrogenic Metal Oxides for Use in Future CMP Applications"  
-- Michael Kröll, Degussa AG
- 9:20 A.M. "Stability of CMP Slurries" -- Andy Kim, FMO Intel Corp
- 9:45 A.M. Coffee Break

### Session V

- 10:15 A.M. "Characterization and application of PSA for polishing pad"  
-- Yoshiaki Katao, Nitta Haas Incorporated
- 10:40 A.M. "The Impact of Pad Microtexture and Material Properties on Surface Contact and Defectivity in CMP" -- Carolina Elmufdi and Gregory Muldowney, Rohm and Haas Electronic Materials CMP Technologies

### Tuesday, August 15 Continued:

- 11:05 A.M. "Evaluation of Mipox pads for CMP" -- Toshihiro Kobayashi, Mipox International Corporation

- 11:30 A.M. "Study of Copper CMP Effect on Copper Damascene Nano Structures Using ADF Mask 454" -- Ron Carpio, ADF and Paul Lefevre, Fujimi Corporation
- 11:55 A.M. Discussion
- 12:00 P.M. Lunch – Terrace Room

#### **Session VI**

- 3:30 P.M. "Asperity-Scale Fluid Flow and Heat Transfer in Chemical Mechanical Planarization" -- Gregory Muldowney, Rohm & Haas Electronic Materials CMP Technologies
- 3:55 P.M. "Mechanistic Evaluation of the Relationship between Low K Dielectric Film Structure and Barrier Slurry Performance" -- Jason Keleher, Cabot Microelectronics
- 4:20 P.M. "Adhesion and Removal of Abrasive Particles and Organic Contaminants in STI and poly SI CMP" -- Jin-Goo Park, Hanyang University
- 4:45 P.M. "Optimization of HF Cleaning Condition on Post-WCMP Cleaning" -- Chan-Ki Yang, Samsung
- 5:10 PM Discussion
- 6:00 - 7:00 P.M. Reception at Lake Placid Club
- 7:00 P.M. Dinner at Lake Placid Club

#### **Wednesday, August 16:**

- 7:00 - 8:00 A.M. Breakfast - Terrace Room

#### **Session VII**

- 8:05 A.M. "Comparison of Fumed Silica Slurry Filter Efficiency" -- Don Hooper, Intel Corp.
- 8:30 A.M. "Pumps Effects in a CMP Slurry Delivery Loop" -- Leland Bauck, Levitronix, a subsidiary of Pharos, LLC
- 8:55 A.M. "CMP Slurry Distribution and Health Management: Challenges and Solutions" -- Rakesh Singh, Entegris, Inc.
- 9:20 A.M. "Unique Analytical Technique for CMP Dispersion Characterizations" -- Dean Hall, LUM Corporation
- 9:45 A.M. "Micro-Flow Imaging™: A New Technology for Measuring the Size, Concentration, and Morphology of CMP Slurry Outliers" -- Dave Thomas, Brightwell Technologies
- 10:05 A.M. Break

#### **Wednesday, August 16 Continued:**

#### **Session VIII**

- 10:30 A.M. "Optical and Mechanical Characterization of CMP Pad Surfaces" -- Len Borucki, Araca, Inc.; Yun Zhuang, Araca, Inc.; Rumin Zhuang, University of Arizona; Ara Philipossian, University of Arizona & Araca Inc.; Mike Lacy and Cliff Spiro, Cabot Microelectronics

- 10:55 A.M. "The Effect of Conditioning Force on Pad Topography and Removal Rate During Copper CMP" -- Rumin Zhuang, University of Arizona; Len Borucki, Araca, Inc.; Yun Zhuang, Araca, Inc.; Ara Philipossian, University of Arizona & Araca Inc.; Mike Lacy and Cliff Spiro, Cabot Microelectronics
- 11:20 A.M. Takeshi Nogami, Sony/IBM
- 11:45 P.M. Yuzhuo Li, CAMP/Clarkson
- 12:10 P.M. Closing Remarks, S.V. Babu, CAMP
- 12:15 P.M. Lunch - Terrace Room

Revised 7/18/06