

DRAFT
(SUBJECT TO CHANGE)

AGENDA

Symposium on Chemical-Mechanical Planarization
August 8-11, 2004
Hilton Lake Placid Resort

Sunday, August 8:

- 12:00 - 5:00 P.M. Hotel Check-in and CAMP Registration
- 5:30 - 6:30 P.M. Cocktail Cruise Reception aboard the Doris (No formal dinner provided) (First 60 to sign up -need to be at Marina Dock by 5:15 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 9:

- 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 - Low-K;Chair:

- 8:05 A.M. “Cu & Ta CMP Chemistry: Recent Advances”
-- S.V. Babu, CAMP
- 8:30 A.M. “Issues and challenges in copper CMP” (tentative)
-- Paul LeFevre, Fujimi
- 8:55 A.M. “Effect of Hydrogen Peroxide (H₂O₂) in Cu Slurry on Cu CMP”
-- Jin-Goo Park, Hanyang University Korea
- 9:20 A.M. "Controlling Pattern Sensitive Erosion in Cu CMP"
-- Anne Miller, Paul Fischer, James Boardman, Dan Feller and Kenneth Cadien, Intel
- 9:45 A.M. “Polish Profile Control Using Magnetic Control Head”
-- Manabu Tsujimura, Ebara Corporation
- 10:15 A.M. Coffee Break

Monday, August 9 Continued:

Session II – Cu CMP ; Chair:

- 10:40 A.M. "CMP - An Industry and Market Analysis"
-- Thomas Abraham, BCC Inc.
- 11:05 A.M. "Advanced Cu planarization technology- Electrochemical polishing (ECP)"
-- Karl Hensen, Merck Electric Chemicals Co Ltd.
- 11:30 A.M. "Electro-Chemical Mechanical Planarization (Ecmp): Removal, Planarization and Process Control by Electrical Charge" -- Stan Tsai, Liang Chen, Alain Duboust, Feng Liu, Siew Neo, Antoine Manens, Yongsik Moon and Yan Wang, Applied Materials
- 11:55 A.M. Discussion
- 12:00 P.M. Lunch - Terrace Room

Session III - Chair:

- 3:15 P.M. "Ice Cream Break"
- 3:30 P.M. "CMP-Related Issues in Low K Integration"
-- Vincent McGahay, IBM
- 3:55 P.M. "Critical scaling issues for Ultra Low K_{eff} Integration"
-- Satya Nitta, IBM
- 4:20 P.M. "Advanced Spin-on Low-K&Cu CMP Slurry for 65nm Technology"
-- Shigeru Nobe , Kazuhiro Enomoto, and Masanobu Habiro; Hitachi Chemical
- 4:45 P.M. Coffee Break

Session IV - Chair:

- 5:00 P.M. "CMP Consumables: Meeting Technology Challenges with Quality Incident Free Performance" -- Andrea Oehler/ Mansour Moinpour, Intel
- 5:25 P.M. "Advanced CMP Consumables with Low Defectivity"
-- Hiroshi Shiho, JSR
- 6:00 P.M. Bus to Whiteface Inn (bus goes every 15 minutes)
- 6:15 P.M. Reception at Whiteface Inn
- 7:00 P.M. Dinner

Tuesday, August 10:

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

Session V - Chair:

8:05 A.M. New CMP Process for Ru Node Separation of RIR Capacitor”
-- Seong-Kyu Yun, Samsung, Korea

8:30 A.M. “Recent developments in tunable barrier slurries”
-- Stuart Hellring, PPG

8:55 A.M. “Innovations in Abrasives Technology for Electronic Applications – Principles and Practice” -- Thomas Puthanangady/Anand Tanikella, St. Gobain

9:20 A.M. “Tribo-Metrology of CMP Consumables”
-- Norm Gitis, CETR

9:45 A.M. Coffee Break

Session VI - Chair:

10:15 A.M. “Recent Advances in the Development of Ceria-Based Slurries for Inner Layer Dielectric CMP” -- David Merrick, Ferro Electronic Material Systems

10:40 A.M. “Characteristic Control of Composite CeO₂ Nanoparticles and Its STI performance”
-- Shawn Feng, J. Lu, S. Govindaswamy, Y. Her, B. Santora, and D. Tysiac, Ferro

11:05 A.M. “Removal Rate Variations, Wear Maps and Flash Heating”
-- Len Borucki, Intelligent Planar, J. Sorooshian, Z. Li, A. Philipossian, University of Arizona and D. Stein, D. Hetherington and R. Timon, Sandia National Laboratories

11:30 A.M. “An Approach for Slurry characterization on CMP”
-- Yoshitaka Morioka, Rodel Nitta

11:55 A.M. Discussion

12:00 P.M. Lunch – Terrace Room

Session VII - Chair:

3:45 P.M. “Design of Slurries for Advanced CMP Applications”
-- Ajoy Zutshi, DuPont AirProducts NanoMaterials L.L.C

4:10 P.M. “Investigation of Surface Adsorption Behavior in a Model Cu CMP Slurry”
-- William America, F. Odeh, IBM and Yuzhuo Li, CAMP

4:35 P.M. “The Impact of CMP Pad Surface Texture on Slurry Flow and Heat Transfer”
-- Greg Muldowney, Rohm and Haas Electronic Materials

5:00 P.M. "Resonance Sensor Technology (RST) a step-change in CMP In-Situ Metrology”
-- Boris Kesil, MultiMetrixx, LLC

5:30 - 7:00 P.M. Poster Session/Open Bar - Medallion Room

7:00 P.M. Dinner

Wednesday, August 11:

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

Session VIII - Chair:

- 8:05 A.M. "Ceria-Based Slurries for STI Applications"
-- Brian Santora, David Merricks, Bob Her, and Jennifer Laemlein, Ferro Electronic Material Systems
- 8:30 A.M. "Characterization and performance aspects of a hard polyurethane pad"
-- Bill Allison, PPG
- 8:55 A.M. "Solid Mechanics of Grooved CMP Pads: Modeling and Experiments"
-- Carolina L. Elmufdi, Anthonio Paesano, Gregory P. Muldowney, and David B. James, Rohm and Haas Electronic Materials
- 9:20 A.M. "Slurry Mixing Dynamics in CMP Polishing Pads of Various Groove Arrays"
-- Greg Muldowney, Rohm and Haas Electronic Materials
- 9:45 A.M. "Post-CMP Cleaners for Removing Organic Contamination on Cu, and Elimination of Water Marks on OSG Dielectrics" – Kyle Bartosh, ATMI
- 10:05 A.M. Break

Session IX – Chair:

- 10:25 A.M. "A Model for Surface Removal During CMP"
-- Goodarz Ahmadi, CAMP
- 10:50 A.M. "Novel Method of Direct Wafer Temperature Measurement during Copper CMP"
-- Yasa Sampurno, Zhonglin Li, Yun Zhuang, Ara Philipossian, University of Arizona, and Leonard Borucki Intelligent Planar
- 11:15 A.M. "Correlations Between Surface Properties of Abrasive Particles and CMP Performance"
-- Yuzhuo Li, CAMP
- 11:40 A.M. Closing Remarks, S.V. Babu, CAMP
- 11:45 A.M. Checkout
- 12:00 Noon Lunch - Terrace Room