

The Symposium on Polymers for Microelectronics

Winterthur Museum & Gardens, Copeland Lecture Hall

15th Meeting Agenda

May 8-10, 2012

Tuesday May 8, 2012	<u>Session 1 - Novel Polymers and Methods for Electronics</u> (Morning Session Chairs: Susan Bagen, Mike Gallagher)
8:35 - 8:40 a.m.	Welcome; Symposium Opening Remarks
8:40 - 9:25	KEYNOTE ADDRESS: <i>Current and Future Needs for Polymeric Materials;</i> Robert Pfahl, International Electronics Manufacturing Initiative, Inc.
9:25 - 9:30	Questions / Comments
9:30 - 10:00	<i>Reducing Gel Particles with Advanced Dispense and Filtration Technology;</i> Jennifer Braggin, Entegris, Inc.
10:00 - 10:30	<i>A Critical Review: Adhesion Measurement of Thin Polymer Films for Microelectronic Applications;</i> Markus Wöhrmann, Technical University of Berlin and Fraunhofer IZM
10:30 - 11:00	Break
11:00 - 11:30	<i>Simultaneous Measurements of Effective Chemical Shrinkage and Modulus Evolutions During Polymerization;</i> Bongtae Han, University of Maryland
11:30 - 12:00	<i>Printed Electronics - An Update;</i> Don Hayes, MicroFab, Inc.
12:00 - 1:30	Lunch (Afternoon Session Chairs: Tim Daubenspeck, Jack Craig)
1:30 - 2:00	<i>Investigation of pattern reflow phenomenon on photosensitive polymer by ARES;</i> Hyun Yong Cho, Samsung Cheil Industries, Inc.
2:00 - 2:30	<i>High Thermal Conductivity Networked Composite Films for Thermal Interface Applications;</i> Joel Plawsky, Rensselaer Polytechnic Institute.
2:30 - 3:00	Break
3:00 - 3:30	<i>Conducting Polymers in Microelectronics;</i> E.Nagabhushan, University College of Technology, Osmania University, Hyderabad, India.
3:30 - 4:00	<i>Hybrid Polymer Composite Assembly Materials for Emerging Electronics Markets;</i> Gene Kim, Cookson Electronics Assembly Materials Group.
4:00 - 4:30	<i>Improved Solvent Resistance for High Temperature, Transparent OLED and LC Substrates;</i> Matt Graham, Akron Polymer Systems, Inc.
4:30 - 5:00	<i>Development of Flexible Polymeric Electronic Substrates for Medical Devices;</i> Susan Bagen, EIT, Inc.
5:30 - 7:00	Symposium Reception - Reflecting Pool

**Wednesday
May 9, 2012**

**Session 2 - Advances in Polymers & Methods for Semiconductor
Fabrication** (Morning Session Chairs: Jim Chung, Joel Plawsky)

8:35 - 8:40 a.m.

Welcome; Symposium Day 2

8:40 - 9:25

KEYNOTE ADDRESS: *Semiconductor Paradigm Shift and Increased Foundry Roles*; Douglas C. H. Yu, Taiwan Semiconductor Manufacturing Company, LTD.
Questions / Comments

9:25 - 9:30

9:30 - 10:00

Low-temperature Curing Positive-Tone Photosensitive Polyimide Coatings for Next-generation Semiconductors; Satoshi Kamemoto, Toray Industries, Inc.

10:00 - 10:30

Photosensitive Polyimide Buffer Coat Material for FC-BGA; Atsushi Fujii, Asahi Kasei E-materials Corporation.

10:30 - 11:00

Break

11:00 - 11:30

Development of Photosensitive Buffer Coating Materials; Masaaki Hanamura, JSR Corp.

11:30 - 12:00

Photosensitive Spin-On Dielectric Passivation Material Decisions for Flip-Chip Devices; Brian Erwin, IBM, Inc

12:00 - 1:30

Lunch

(Afternoon Session Chairs: Rob White, Ed Prack)

1:30 - 2:00

Development of a Photosensitive PBO with Improved Chemical Resistance; Mamoru Sasaki, Hitachi Chemical, DuPont Microsystems.

2:00 - 2:30

Positive-tone Photodefinable Transparent Siloxane Materials; Toru Okazawa, Toray Industries.

2:30 - 3:00

Break

3:00 - 3:30

Single-Layer and Bi-Layer Spray Coating for Lift-off on Topographically Challenged Wafers; Chad Brubaker, E.V. Group, Inc.

3:30 - 4:00

SU-8 Formulation for 436 nm Lithography Applications; William Weber, MicroChem Corp.

4:00 - 4:30

Low-Temperature Curable Positive-Tone Photosensitive Dielectric for WLP Applications; Akitoshi Tanimoto, Hitachi Chemical, Inc.

4:30 - 5:00

A New Thick-film Negative Resist Suitable for Lift-off Applications; Medhat Toukhy, AZ Electronic Materials, US Corp.

6:00 - 9:30

Exhibitors/Cocktails/ Dinner

**Thursday
May 10, 2012**

Session 3 - Polymers & Methods for 3-D, TSV, WLP and Emerging Applications.
(Session Chairs: Bill Weber, Chris Milasincic))

8:35 - 8:40 a.m.

Welcome; Symposium Day 3

8:40 - 9:25

KEYNOTE ADDRESS: *Polymer Dielectrics in Wafer Level Packaging: Status and Direction*; Phillip Garrou, Yole Developpement.

9:25 - 9:30

Questions / Comments

9:30 - 10:00

Handling and Processing of Thin Wafers by Temporary Wafer Bonding - Backbone of 3-D System Integration; Kai Zoschke, Fraunhofer IZM, Berlin.

10:00 - 10:30

Growth in Cu Pillar and Material Requirements; E.Jan Vardaman, Tech Search, Inc.

10:30 - 10:50

Break

10:50 - 11:20

WLP1000 Dry Film Photoresist Applications for Wafer Level Package; Hao Yun, DuPont Electronics and Communications

11:20 - 11:50

Chip Embedding by Spin-On Dielectrics; Fabrice Duval, IMEC

11:50 - 12:20

Resolution Improvements in Aqueous Base Developable Photoimageable Dielectric for 3-D Through Silicon Via and Wafer Level Packaging Applications; Kim S. Ho, Dow Electronic Materials.

12:20 - 12:25

Wrap-Up; Closing Remarks