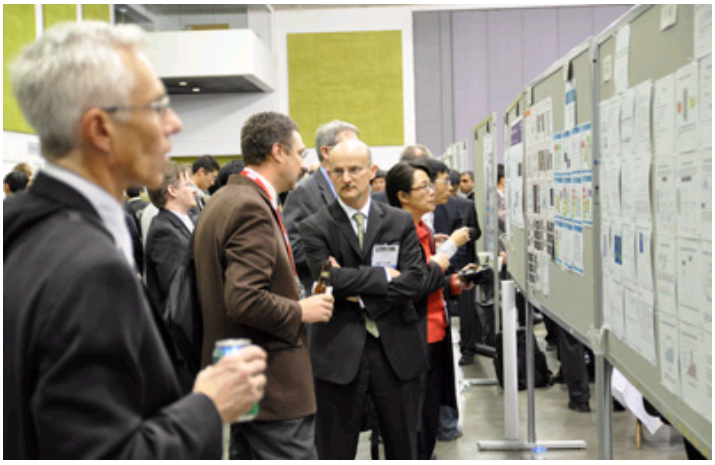
EUV is hot topic at SPIE Advanced Lithography 2011

15 March 2011

SPIE Advanced Lithography



A record crowd convened for the Wednesday evening poster session at SPIE Advanced Lithography.

BELLINGHAM, Washington, USA -- First noted in 1965, Moore's law describes the trend of increasing computer technology, which has continued for more than 50 years and is expected to keep going for decades more in the semiconductor industry. A growth trend was certainly reflected at SPIE Advanced Lithography 2011 in San Jose, California, earlier this month, where extreme ultraviolet (EUV) lithography advances were a major focus.

Total attendance was 2,350, an increase of 11% over last year. Technical rooms were particularly full as attendance was up 27% over 2010. Short course average attendance was up 43%.

New products drew much attention.

Celebrating their 30th anniversary this year, Brewer Science introduced two new products. "This is our core conference," said Brewer's Alex Smith. "We exhibit and present papers. If you are not publishing papers, too, you aren't going to get recognized for new innovation."

Also among new-product exhibitors was Peter Choi, President and Director of Technology at NANO-UV, who showed his company's plasma-based EUV light source for next-generation lithography in its public debut.

"The Alternate Technology conference had many sessions with packed rooms, as if the attendees were 'searching' for the next savior in lithography," noted Symposium Chair Donis Flagello. "Chip manufacturers are seriously tackling manufacturing issues that may occur with both the multiple patterning strategies with 193nm and the EUV technologies when moving into production."

"I was very impressed by the quality of the technical presentations," said

Symposium Co-chair Harry Levinson. "For EUV lithography, considerable progress was evident, but remaining challenges were also apparent, particularly in the areas of sources and resists."

The opening-day plenary session set a new attendance record of nearly 1,400. Luc Van den hove, CEO of IMEC, shared his vision of how applications of semiconductor technology will further enhance human capabilities. Shang-yi Chiang of Taiwan Semiconductor Manufacturing Corp. spoke of extending Moore's Law, noting that its future is in the hands of the Advanced Lithography attendees.

Awards and honors

Andrew Neureuther (University of California, Berkeley), received the 2011 Frits Zernike Award for Microlithography in recognition of his pioneering contributions and leadership of university research on modeling and understandings of lithography physics for semiconductor manufacturing.

Four new Fellows of the Society were recognized:

- Ahmed Hassanein
- Naoya Hayashi
- John Petersen
- Robert Socha.

The 2010 Diana Nyyssonen Memorial Award for the Best Paper on Metrology in the conference Metrology, Inspection, and Process Control for Microlithography was awarded to:

- David Laidler
- Koen D'Have
- Anne Laure-Charley
- Shaunee Cheng
- Peter Vanoppen
- Mircea Dusa.

The 2010 Jeffrey Byers Memorial Best Poster Award in the 2010 conference Advances in Resist Materials and Processing Technology, sponsored by TEL -- Tokyo Electron, was awarded for a paper titled, "High contact angle fluorosulfonamide-based materials for immersion lithography," by:

- Dan Sanders
- Linda Sundberg
- Masaki Fujiwara
- Yoshiharu Terui
- Manabu Yasumoto.

The 2010 C. Grant Willson Award for Best Paper in the 2010 conference Advances in Resist Materials and Processing Technology was presented to lead author Xinyu Gu, Univ. of Texas at Austin, for the paper, "Photobase generator-assisted pitch division." The award is sponsored by IBM.

Accepted papers will be published in the SPIE Digital Library as soon as approved after the meeting, and in print volumes and digital collections. For the on-site daily report see SPIE.org/x44393.xml. A photo gallery is at SPIE.org/x47480.xml.

For more on Advanced Lithography 2011, visit SPIE.org/x10942.xml.

SPIE, the international society for optics and photonics, was founded in 1955 to advance light-based technologies. Serving more than 180,000 constituents from 168 countries, the Society advances emerging technologies through interdisciplinary information exchange, continuing education, publications, patent precedent and career and professional growth. SPIE annually organizes and sponsors approximately 25 major technical forums, exhibitions and education programs in North America, Europe, Asia and the South Pacific, and supports scholarships, grants and other education programs around the world.

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