Community readies for SPIE Advanced Lithography amidst market growth indicators

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BELLINGHAM, Washington, USA -- Bolstered by a record 2010 and continued indicators predicting market growth for the industry, the lithography community is preparing for its annual gathering at SPIE Advanced Lithography. Finding solutions to technology and cost-efficiency challenges in the semiconductor industry will be a prominent topic at conferences, panel discussions, and plenary talks during the symposium at the San Jose, California, Convention Center 27 February through 4 March.

The event will bring together hundreds of top lithography researchers in six conferences dedicated to such topics as EUV, resist materials, self assembly, double patterning, maskless lithography, optical extension, and metrology, all aimed at achieving the advancements predicted in Moore's Law.

More than 550 papers on the latest research will be presented. Courses continue to be on an upward trend for the second year in a row. 12 professional development courses and workshops are scheduled; topics include EUV, lithographic optimization, E-beam lithography and inspection, and other current engineering and manufacturing approaches. The program will also include an exhibition, poster sessions and receptions, and several hosted lunches.

The chip industry continues to name lithography as a critical challenge in fabricating next generation integrated circuits. Historically, the lithography community has successfully met any challenge the semiconductor industry has faced, from bringing immersion lithography into mainstream production to working with chip designers on improving manufacturability. For the past 35 years, the SPIE Advanced Lithography Symposium has played a key role in bringing the lithography community together to solve challenges required by the semiconductor industry.

Conference chairs are Donis Flagello, Nikon Research Corp. of America, and Harry Levinson, GLOBALFOUNDRIES, Inc.

Plenary speakers Luc Van den hove, president and CEO of IMEC, and Shang-Yi Chiang, senior vice president of Taiwan Semiconductor Manufacturing Co., will address the question of how the industry can sustain itself and prosper in an era of smaller and smaller chips. Their presentations will be on Monday morning, 28 February.

Other technical events include:
· Panel discussion on nanotechnology and patterning for green energy semiconductor solutions
· BACUS panel discussion on collaboration and competitiveness among mask makers (sponsored by KLA Tencor)
· Part 2 of a mock trial of EUV and DPT ArF
· Panel discussion on the progress toward the Sub-22-Node
· Panel discussion and reception celebrating 25 years of industry innovation in metrology, inspection, and process control (sponsored by Applied Materials)
· Workshop on reference metrology.

Numerous awards scheduled to be presented:

· Diana Nyyssonen Memorial Award for the Best Paper on Metrology in the 2010 Conference-Metrology, Inspection, and Process Control for Microlithography (sponsored by IBM)
· C. Grant Willson Award for Best Paper in the 2010 conference - Advances in Resist Materials and Processing Technology XXVII (sponsored by Tokyo Electron)
· Hiroshi Ito Memorial Award for Best Student Paper for 2011 conference - Advances in Resist Materials and Processing Technology XXVIII (sponsored by IBM)
· Optical Microlithography Best Student Paper Award (sponsored by Cymer)

Accepted papers will be published in the SPIE Digital Library as soon as approved after the meeting, and in print volumes and digital collections. The SPIE Digital Library is the world's largest collection of optics and photonics literature, and a leading resource for scientific and patent research.

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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