Contents

vii Conference Committee
ix Foreword
xi Sponsors and Cooperating Partners
xiii Best Paper of PMJ 2013
The capability of high magnification review function for EUV actinic blank inspection tool [8701-42]
H. Miyai, T. Suzuki, K. Takehisa, H. Kusunose, Lasertec Corp. (Japan); T. Yamane, T. Terasawa, H. Watanabe, I. Mori, EUVL Infrastructure Development Ctr., Inc. (Japan)

PLENARY SESSION

8886 02 The lithographer's dilemma: shrinking without breaking the bank (Keynote Paper) [8886-6]
H. J. Levinson, GLOBALFOUNDRIES Inc. (United States)
8886 03 Consequent use of IT tools as a driver for cost reduction and quality improvements (Invited Paper) [8886-25]
S. Hein, R. Rapp, A. Feustel, Robert Bosch GmbH (Germany)

EUV TOOLING AND FURTHER LITHOGRAPHY OPTIONS

8886 04 NXE:3300B platform: imaging applications for Logic and DRAM [8886-17]
E. van Setten, G. Schiffelers, C. Toma, J. Finders, D. Oorschot, J. van Dijk, S. Lok, R. Peeters, ASML Netherlands BV (Netherlands)
8886 05 Thermal probe nanolithography: in-situ inspection, high-speed, high-resolution, 3D [8886-29]
F. Holzner, Swiss Litho AG (Switzerland), IBM Zurich Research Lab. (Switzerland), and ETH Zurich (Switzerland); P. Paul, Swiss Litho AG (Switzerland), IBM Zurich Research Lab. (Switzerland), and inspire AG (Switzerland); M. Despont, IBM Zurich Research Lab. (Switzerland); L. L. Cheong, IBM Zurich Research Lab. (Switzerland) and Massachusetts Institute of Technology (United States); J. Hedrick, IBM Almaden Research Ctr. (United States); U. Dürrig, A. Knoll, IBM Zurich Research Lab. (Switzerland)

OPTICAL LITHOGRAPHY AND APC

8886 08 Scanner grid recipe creation improvement for tighter overlay specifications [8886-4]
E. Cotte, H. Kathiresan, M. Ruhm, B. Schulz, U. Schulze, GLOBALFOUNDRIES (Germany)
**Challenges in process marginality for advanced technology nodes and tackling its contributors** [8886-33]
A. Narayana Samy, R. Schiwon, R. Seltmann, F. Kahlenberg, GLOBALFOUNDRIES (Germany); U. Katakamsetty, GLOBALFOUNDRIES Singapore (Singapore)

**MASK MATERIALS**

**Experimental approach to EUV imaging enhancement by mask absorber height optimization** [8886-22]
N. Davydova, R. de Kruijf, ASML Netherlands B.V. (Netherlands); H. Rolff, Advanced Mask Technology Ctr. GmbH & Co. KG (Germany); B. Connolly, Toppan Photomasks, Inc. (Germany); E. van Setten, A. Lammers, D. Oorschot, ASML Netherlands B.V. (Netherlands); N. Fukugami, Y. Koder, Toppan Printing Co., Ltd. (Japan)

**Actinic characterization and modeling of the EUV mask stack** [8886-19]
V. Philipsen, E. Hendrickx, R. Jonckheere, IMEC (Belgium); N. Davydova, T. Fliervoet, ASML Netherlands B.V. (Netherlands); J. T. Neumann, Carl Zeiss SMT GmbH (Germany)

**Recent advances in SEMATECH's mask blank development program, the remaining technical challenges, and future outlook** [8886-32]
F. Goodwin, P. Kearney, A. J. Kadaksham, S. Wurm, SEMATECH Inc. (United States)

**E-BEAM LITHOGRAPHY**

**Chemical Semi-Amplified positive E-beam Resist (CSAR 62) for highest resolution** [8886-16]
M. Schirmer, Allresist GmbH (Germany); B. Büttner, Martin-Luther-Univ. Halle-Wittenberg (Germany); F. Syrowatka, Interdisziplinäres Zentrum für Materialwissenschaften (Germany); G. Schmidt, Martin-Luther-Univ. Halle-Wittenberg (Germany) and Interdisziplinäres Zentrum für Materialwissenschaften (Germany); T. Köpnick, Institut für Dünnschichttechnologie und Mikrosensorik (Germany); C. Kaiser, Allresist GmbH (Germany)

**Dose variation and charging due to fogging in electron beam lithography: simulations using CHARIOT Monte Carlo software** [8886-30]
S. Babin, S. Borisov, E. Patyukova, aBeam Technologies, Inc. (United States)

**Extreme long range process effects characterization and compensation** [8886-20]
T. Figueiro, Aselta Nanographics (France) and CEA-LTM, CNRS, Univ. Joseph Fourier (France); C. Browning, Aselta Nanographics (France); M. J. Thornton, Aselta Nanographics (France) and CEA-LETI (France); C. Vannuffel, CEA-LETI (France); K.-H. Choi, C. Hohle, Fraunhofer-Ctr. Nanoelektronische Technologien (Germany); J.-H. Tortai, CEA-LTM, CNRS, Univ. Joseph Fourier (France); P. Schiavone, Aselta Nanographics (France)

**METROLOGY AND INSPECTION**

**Status of the AIMS EUV development project** [8886-26]
A. Garetto, J. H. Peters, Carl Zeiss SMS GmbH (Germany); D. Hellweg, M. Weiss, Carl Zeiss SMT (Germany)
8886 0J  **Changing technology requirements of mask metrology** [8886-34]
K.-D. Roeth, M. Wagner, F. Laske, KLA-Tencor MIE GmbH (Germany)

8886 0K  **Utilization of AIMS Bossung plots to predict Qz height deviations from nominal** [8886-27]
A. Garetto, Carl Zeiss SMS GmbH (Germany); D. Uzzel, Photronics, Inc. (United States); K. Magnusson, Carl Zeiss SMS GmbH (Germany); J. Morgan, Photronics, Inc. (United States); G. Tabbone, Carl Zeiss SMS GmbH (Germany)

8886 0L  **Application of Mueller matrix spectroscopic ellipsometry to determine line edge roughness on photomasks** [8886-18]
A. Heinrich, I. Dirsstorfer, NaMLab gGmbH (Germany); J. Bischoff, Osires (Germany); U. Richter, H. Ketelson, K. Meiner, SENTECH Instruments GmbH (Germany); T. Nikolajick, NaMLab gGmbH (Germany) and Technische Univ. Dresden (Germany)

**RESOLUTION ENHANCEMENT AND DFM**

8886 0M  **Looking for simple engineering solutions in DFM patents (Invited Paper)** [8886-2]
A. Balasinski, Cypress Semiconductor Corp. (United States)

8886 0N  **Imaging challenges in 20nm logic node: hotspots performance in Metal1 layer** [8886-23]
V. Timoshkov, ASML Netherlands B.V. (Netherlands); D. Rio, H. Liu, ASML Brion (United States); W. Gillijns, J. Wang, P. Wong, D. Van Den Heuvel, V. Wiaux, IMEC (Belgium); P. Nikolsky, J. Finders, ASML Netherlands B.V. (Netherlands)

8886 0O  **Improving inspectability of sub-2x-nm node masks with complex SRAF** [8886-24]
I. Y. Kang, G. Yoon, J. Lee, D. P. Chung, B.-G. Kim, C.-U. Jeon, SAMSUNG Electronics Co., Ltd. (Korea, Republic of); G. Inderhees, T. Hutchinson, W. Cho, KLA-Tencor Corp. (United States); J. Hur, KLA-Tencor Corp. (Korea, Republic of)

8886 0P  **Model-based SRAF solutions for advanced technology nodes** [8886-28]
S. Jayaram, P. LaCour, J. Word, A. Tritchkov, Mentor Graphics Corp. (United States)

*Author Index*
Conference Committee

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2 Plenary Session II
B. Connolly, Toppan Photomasks GmbH (Germany)
N. Hayashi, Dai Nippon Printing Company Ltd. (Japan)

3 EUV Tooling and Further Lithography Options
J. H. Peters, Carl Zeiss SMS GmbH (Germany)
H. Morimoto, Toppan Printing Company (Japan)

4 Optical Lithography and APC
U. F.W. Behringer, UBC Microelectronics (United States)

5 Mask Materials
D. Farrar, Hoya Corporation (United Kingdom)
M. Arnz, Carl Zeiss SMT AG (Germany)

6 E-beam Lithography
I. Stolberg, Vistec Electron Beam GmbH Jena (Germany)
N. Hayashi, Dai Nippon Printing Company Ltd. (Japan)

7 Panel Discussion
S. Wurm, SEMATECH Inc. (United States)

8 Metrology and Inspection
J. Finders, ASML Netherlands B.V. (Netherlands)
K.-D. Roeth, KLA-Tencor MIE GmbH (Germany)

9 Resolution Enhancement and DfM
W. Maurer, Infineon Technologies AG (Germany)
J. Finders, ASML Netherlands B.V. (Netherlands)
Foreword

On behalf of VDE/VDI-GMM, the sponsors, and the organizing committee, we welcome you to the proceedings volume from the 29th European Mask and Lithography Conference, EMLC2013, which was held at the Hilton Hotel in Dresden, Germany.

Each year this conference brings together scientists, researchers, engineers, and technologists from research institutes and companies from around the world to present innovations at the forefront of mask lithography and mask technology. The two and a half day conference was dedicated to the science, technology, engineering, and application of mask and lithography technologies and associated processes, giving an overview of the present status in mask and lithography technologies and the future strategy where mask producers and users have the opportunity of becoming acquainted with new developments and results. This year’s sessions included: EUV Tooling & Further Lithography Options, Optical Lithography & APC, Mask Materials, E-beam Lithography, Metrology & Inspection, and Resolution Enhancement & DFM.

Dr. G. Teepe from GLOBALFOUNDRIES was the conference’s welcome speaker. Ther first keynote speaker was Dr. H. Morimoto from Toppan Printing Company of Japan. His presentation was entitled “Photomask Technology Progress to meet with Electronics Product Requirements.” Our second keynote speaker was Dr. H.J. Levinson from GLOBALFOUNDRIES. His presentation was entitled “The Lithographer’s Dilemma: Shrinking without Breaking the Bank.”

As a tradition we invited the Best Paper of PMJ 2013 and the Best Poster from Photomask Space 2012 to present their papers at the EMLC2013.

A Panel Session “EUVL – What else?” took place on Wednesday afternoon. The panelists were: H. Morimoto from Toppan; H.J. Levinson from GLOBALFOUNDRIES; F. Goodwin from SEMATECH; N. Hayashi, from DNP; J. Finders from ASML; and J.H. Peters from Carl Zeiss SMS. S. Wurm from SEMATECH acted as Session Chair and Moderator.

Parallel to the Conference Presentations, the Technical Exhibition took place on Tuesday afternoon (1:00 PM), and continued all of Wednesday, and concluded Thursday afternoon (1:00 PM). Some of the exhibitor companies were: Vistec E-Beam; Photronics; Entegris; Nillare; PI; Pozzetta; Carl Zeiss; JEOL; S3Alliance; Sistem; ibss Group. EQUIcon informed us on their products and support.
We hope that you enjoyed the Technical Sessions of the EMLC2013 as well as the Technical Exhibition, but also allow yourself to visit Dresden!

Uwe F.W. Behringer
Sponsors and Cooperating Partners

The 29th European Mask and Lithography Conference, EMLC would like to express its sincere appreciation to all the sponsors and cooperating partners mentioned below for their support.