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Foreword

Welcome to the proceedings volume of the 27th European Mask and Lithography conference, EMLC2011, held 18-19 January 2011 at the Hilton Hotel in Dresden, Germany. The conference has annually brought 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-day conference is 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 include: E-Beam Pattering, NGL Lithography and Mask, Wafer Pattering and Application, EUV, Metrology, Mask Application, Mask Cleaning & Haze, and Data Prep / RET and Simulation, ML2, as well as NIL.

We are pleased to report that Dirk Hilbert, mayor of economic affairs of the city of Dresden provided the opening comments.

Our first keynote speaker was Dr. Christopher Progler, Chief Technology Officer of Photronics, USA. His presentation is entitled "The photomask technology roadmap: Hydra or hyperbole."

Our second keynote speaker was Thomas Schmidt, General Manager of the Advanced Mask Technology Center, AMTC in Dresden, Germany. His presentation was entitled "The metamorphosis of a mask shop – how foundry requirements change mask making."

The third Keynote speaker came from ASML, The Netherlands. Mr. Bert Koek presented, "Advanced lithography: more than Rayleigh."

Parallel to the conference presentations on Tuesday and Wednesday, a technical exhibition took place where companies (mask suppliers, material suppliers, and equipment suppliers) showed off their companies and products. In order to foster the exchange between the conference attendees and the exhibitors, the exhibition area also served as the place for all coffee and lunch breaks.

EMLC2011 dinner banquet took place at the Watzke Brewery in Dresden, where we all learned to brew different kinds of beer.

We hope that you enjoyed the technical sessions of the EMLC2011as well as the technical exhibition, and that you allowed yourself to visit Dresden, one of the most beautiful cities in Europe!

Uwe F.W. Behringer

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