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## ***25th European Mask and Lithography Conference***

**Uwe F. W. Behringer**  
*Editor*

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**Dresden, Germany**

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## Foreword

On behalf of VDE/GMM, the sponsors, and the organizing committees, welcome to the 25th European Mask and Lithography Conference, EMLC2009, being held at the Hilton Hotel, Dresden, Germany, 12–15 January 2009. This year the conference celebrates its 25th anniversary!! So I am pleased to give you some information regarding the history of this conference:

### **The EMLC History**

In 1983, the VDI/VDE society decided to organize an annual conference in Munich called "Maskentechnik für Mikroelektronische Bauteile," or in English, "Mask Technology for Microelectronic Components." The first conference had about 40 attendees, and the official language of the conference was German. I gave my first presentation in 1985 on "Silicon stencil mask technology." The conference was held annually in November in connection with the Productronica or Electronica in Munich, Germany.

In 1993, the committee members of the VDI/VDE working group "Maskentechnik" (Mask Technology) elected me as their chair. One of my goals had been that this committee should not create German standards for mask technology, but should concentrate on organizing a mask conference in order to provide the German mask community with global technical information as soon as possible. In 1994, the conference was held for the first time at the Munich Fraunhofer Institute for Reliability and Microintegration on invitation by the German Fraunhofer Society. For the next seven years, Hans Hartmann from the Fraunhofer Institute and I served as conference chairs. In 1996, the committee decided to switch the conference language to English and to rename the conference to Mask Technology for Integrated Circuits and Micro Components.

Three years later, the conference room at the Fraunhofer Institute in Munich could not accommodate the now more than 90 attendees. So in 1997, the 14th conference was held at the Holiday Inn Hotel in Munich Unterhaching. In 1998, we decided to change the conference name to "European Mask Conference, EMC." In the same year, VDE/VDI and SPIE set up a memorandum of understanding which allows SPIE to publish all EMC manuscripts in parallel to the German VDE/VDI publications.

In 2002, Jacques Waelpoel from ASML in the Netherlands started to help me to chair the EMC. Also in 2002 we decided to move the conference from cold November to cold January, in order to gain some distance to the BACUS conference, which is held usually in late September/early October. Why January? Well, for a conference of this scope, there are not many months left: February is the month for Advance Microlithography in Santa Clara, California; April is for Photomask Japan (PMJ) in Yokohama, Japan. At the end of May the EIPBN takes

place somewhere in the USA, and from June to August most Europeans are somewhere on vacation. So there is not much room left to organize the EMC in any other month.

In January 2003, the annual EMC was held probably at the best place for a conference during wintertime, in Sonthofen in the German Alps (buried in 80 cm / 3' of fresh snow). What a great place to be! At this conference the EMC committee was asked by AMD, AMTC, and Infineon to move the EMC for 2004 to Dresden, which we did. In 2005 the conference name was changed to "European Mask and Lithography Conference, EMLC," to demonstrate that lithography as the application of masks has become a centerpiece of interest. Since that conference, Wilhelm Maurer from Infineon supports the EMLC's organisation by coordinating the review of abstracts and manuscripts in a perfect manner.

During EMLC2006, an invitation was received to organize the EMLC2007 in Grenoble, France. The organization of such an event across country borders was quite a challenge, but it turned out as quite a success. In 2008, the EMLC returned to Dresden.

#### **About the EMLC2009**

As in past years, the EMLC2009 brings together scientists, researchers, engineers, and technologists from research institutes and companies from around the world to present innovations at the forefront of lithography and mask technology. The technical conference is scheduled from Tuesday through Thursday, and is dedicated to the science, technology, engineering, and application of mask and lithography technologies and associated processes. Presenting an overview of the current status in mask and lithography technologies and of future strategies, this is the place where mask producers and users become acquainted with newest developments and results.

On Monday evening we welcome you to an informal get together at 19:00 at the Hilton Hotel. For the conference opening on Tuesday, we invited Dirk Hilbert, Mayor of Economic Affairs of the city of Dresden, to welcome the conference attendees. After his welcome address, there will be two keynote speakers: Stefan Wurm from SEMATECH, Albany, USA, with his presentation "Lithography development and research for the  $\leq 22\text{nm}$  half-pitch," and Dr. Kurt Kimmel from AMTC in Dresden, Germany, with his presentation "Mask salvage in the age of capital contraction."

The keynotes will be followed by the regular sessions: Mask Business and Application, Simulation and Double Patterning, Mask Cleaning/Haze, EUV I, NIL, Metrology, ML2, Inspection and Pattern Generation and EUV II. The poster reception will be held on Wednesday evening. The EMLC2009 will close on Thursday noon, followed by company visits at AMD and Qimonda.

On Tuesday and Wednesday, our traditional technical exhibition will take place. To foster the exchange between the conference attendees and the exhibitors, all coffee and lunch breaks will happen there. So, enjoy the technical sessions, but also enjoy your visit in Dresden, one of the most beautiful cities in Europe!

**Uwe F. W. Behringer**





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