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Bruno M. La Fontaine
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Introduction

It is my pleasure to introduce the proceedings of the first SPIE conference on Extreme Ultraviolet (EUV) Lithography.

In the past EUV lithography has been part of the conference on Alternative or Emerging Lithographic Technologies. In 2010, it appears that EUV lithography is no longer an alternative but rather the main choice for future nodes. It has essentially *emerged!* Separately, the EUV and Alternative Lithography conferences have thrived, providing a more focused attention both to the booming field of EUV and to the more exploratory topics covered in the Alternative Lithography conference.

As the EUV Lithography conference chair, I am pleased by the quality and quantity of papers presented and collected in this volume. We had a very healthy international participation with strong representation from Asia, Europe, and America. The papers covered areas that are known critical issues for the technology, such as mask yield, sources, resist performance, and components lifetime. They also provided updates on the status of tools and process development for the technology nodes of interest.

Exciting new developments have been reported. A first wave of EUV scanners for early insertion in manufacturing is in the final phases of integration. Source manufacturers are reporting power levels approaching 100 W. Excellent progress is being achieved in mask defectivity, both at the blank suppliers and at mask houses. EUV lithography has been used to produce the smallest working SRAM devices ever fabricated. And these are just a few examples.

The 2010 EUV Lithography conference has been a resounding success, to which many have contributed. I would like to acknowledge the authors and participants, without whom there would not be a conference. I am also indebted to my cochair, Patrick Naulleau from LBNL, and to the conference program committee for all their help in putting the program together and chairing sessions. Finally, I would like to extend very special thanks to the SPIE staff, as their many contributions truly help make this conference a success.

Bruno M. La Fontaine

