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Front Matter: Volume 10451

, "Front Matter: Volume 10451," Proc. SPIE 10451, Photomask Technology 2017, 1045101 (21 November 2017); doi: 10.1117/12.2293163

Event: SPIE Photomask Technology and EUV Lithography, 2017, Monterey, California, United States

PROCEEDINGS OF SPIE

Photomask Technology 2017

**Peter D. Buck
Emily E. Gallagher**
Editors

**11–14 September 2017
Monterey, California, United States**

Sponsored by

The international technical group of SPIE dedicated
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Published by
SPIE

Volume 10451

Proceedings of SPIE 0277-786X, V. 10451

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Photomask Technology 2017, edited by Peter D. Buck, Emily E. Gallagher, Proc. of SPIE Vol. 10451,
1045101 · © 2017 SPIE · CCC code: 0277-786X/17/\$18 · doi: 10.1117/12.2293163

Proc. of SPIE Vol. 10451 1045101-1

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Author(s), "Title of Paper," in *Photomask Technology 2017*, edited by Peter D. Buck, Emily E. Gallagher, Proceedings of SPIE Vol. 10451 (SPIE, Bellingham, WA, 2017) Seven-digit Article CID Number.

ISSN: 0277-786X
ISSN: 1996-756X (electronic)

ISBN: 9781510613768
ISBN: 9781510613775 (electronic)

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
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Introduction

The 2017 SPIE Photomask Technology Conference was held September 11-14 in Monterey, California, co-located for the first time with the EUV Lithography Conference. The organizers of these two conferences recognized their synergy and thought that a united conference would have value greater than the two held separately. Indeed, the combined conference integrated naturally and the increased attendance gave the conference a momentum not experienced in years. Since their first date went so well, these two conferences are expected to remain together for the foreseeable future.

EUV lithography readiness for high volume production was the overriding theme of the conference with joint sessions on EUV readiness, pellicles, and inspection/metrology. A joint panel discussion explored options and strategies for early EUVL insertion without initial actinic inspection availability. The general consensus of the panelists and attendees was that this was not a technical barrier but did have a large impact on complexity, cost, and cycle time.

Machine Learning is gaining more and more attention as organizations attempt to make sense of the huge amount of data collected in the process of manufacturing masks and integrated circuits. This year, for the first time, Photomask Technology included a Machine Learning session that explored use models and applications for this exciting emerging data analysis technology. Papers from the conference, covering the latest progress in all areas related to photomasks, follow in this proceedings.

Peter D. Buck
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