PROCEEDINGS OF SPIE

SPIDigitalLibrary.org/conference-proceedings-of-spie

Front Matter: Volume 11837

, "Front Matter: Volume 11837," Proc. SPIE 11837, Advances in X-Ray/EUV Optics and Components XVI, 1183701 (8 October 2021); doi: 10.1117/12.2606434

Event: SPIE Optical Engineering + Applications, 2021, San Diego, California, United States

PROCEEDINGS OF SPIE

Advances in X-Ray/EUV Optics and Components XVI

**Christian Morawe
Ali M. Khounsary
Shunji Goto**
Editors

**1–5 August 2021
San Diego, California, United States**

Sponsored and Published by
SPIE

Volume 11837

Proceedings of SPIE 0277-786X, V. 11837

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

Advances in X-Ray/EUV Optics and Components XVI, edited by Christian Morawe
Ali M. Khounsary, Shunji Goto, Proc. of SPIE Vol. 11837, 1183701 · © 2021 SPIE
CCC code: 0277-786X/21/\$21 · doi: 10.1117/12.2606434

Proc. of SPIE Vol. 11837 1183701-1

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at [SPIDigitalLibrary.org](https://spiedigitallibrary.org).

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:

Author(s), "Title of Paper," in *Advances in X-Ray/EUV Optics and Components XVI*, edited by Christian Morawe, Ali M. Khounsary, Shunji Goto, Proc. of SPIE 11837, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 0277-786X

ISSN: 1996-756X (electronic)

ISBN: 9781510645127

ISBN: 9781510645134 (electronic)

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time)

[SPIE.org](https://spie.org)

Copyright © 2021 Society of Photo-Optical Instrumentation Engineers (SPIE).

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of fees. To obtain permission to use and share articles in this volume, visit Copyright Clearance Center at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher.

Printed in the United States of America by Curran Associates, Inc., under license from SPIE.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIE. DIGITAL LIBRARY
[SPIDigitalLibrary.org](https://spiedigitallibrary.org)

Paper Numbering: A unique citation identifier (CID) number is assigned to each article in the Proceedings of SPIE at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

REFRACTIVE OPTICS

- 11837 02   **X-ray refractive axicon lens for advanced synchrotron sources** [11837-9]
- 11837 03   **Study of the applicability of nano-polycrystalline diamond as a material for refractive x-ray lenses** [11837-10]
- 11837 04   **Silicon planar refractive optics for coherent x-ray sources: metrology and manufacturing approaches** [11837-11]

REFLECTIVE OPTICS

- 11837 07   **Current status of development of electroforming process for high-precision soft x-ray mirrors** [11837-1]
- 11837 09   **Development of figure correction system for axisymmetric x-ray mirrors** [11837-3]
- 11837 0A   **Diaboloid mirror for a bending magnet beamline** [11837-4]
- 11837 0C   **Mirror figure correction on variable length scales** [11837-6]
- 11837 0D   **Electrodeposition simulation for fabricating Wolter mirrors of x-ray telescopes** [11837-7]
- 11837 0E   **Control enhancement of an elliptically bent hard x-ray dynamic mirror bender with machine-learning techniques** [11837-30]

DIFFRACTIVE OPTICS

- 11837 0H   **Wave calculation of synchrotron radiation through crystal monochromator** [11837-17]
- 11837 0I   **Low blaze angle gratings for x-ray and EUV applications** [11837-18]

LAB SOURCES AND APPLICATIONS

- 11837 0N   **X-ray diffraction imaging of diamond x-ray optics in the laboratory** [11837-24]

- 11837 OO   **Performance simulations for the ground-based, expanded-beam x-ray source BEaTriX**
[11837-25]
- 11837 OP   **Thermal management of LINAC targets** [11837-26]
- 11837 OR   **LPXS: a high-performance, recirculating liquid-metal laser-driven plasma x-ray source**
[11837-29]