PROCEEDINGS OF SPIE

Practical Holography XXXV: Displays, Materials, and Applications

Hans I. Bjelkhagen Seung-Hyun Lee Editors

6–11 March 2021 Online Only, United States

Sponsored and Published by SPIE

Volume 11710

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 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 *Practical Holography XXXV: Displays, Materials, and Applications*, edited by Hans I. Bjelkhagen, Seung-Hyun Lee, Proceedings of SPIE Vol. 11710 (SPIE, Bellingham, WA, 2021) Seven-digit Article CID Number.

ISSN: 0277-786X

ISSN: 1996-756X (electronic)

ISBN: 9781510642553

ISBN: 9781510642560 (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 SPIE.org

Copyright © 2021, Society of Photo-Optical Instrumentation Engineers.

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 copying fees. The Transactional Reporting Service base fee for this volume is \$21.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online 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. The CCC fee code is 0277-786X/21/\$21.00.

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.



Paper Numbering: Proceedings of SPIE follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article 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

	MATERIALS AND PROCESSES
11710 03	Expanding the property profile of Bayfol HX® film towards NIR recording and ultra-high index modulation (Invited Paper) [11710-1]
11710 05	Accommodation measurements of a holographic HUD using auto-refractor [11710-3]
11710 07	C2 symmetric single-layered meta-atoms for asymmetric holography [11710-5]
11710 08	One-step fabrication of surface relief dot-matrix holograms using supramolecular azopolymer thin films [11710-6]
	APPLICATIONS OF DISPLAY AND ART HOLOGRAPHY
11710 0A	Evaluating autofocusing metrics for plankton holographic microscope image reconstruction [11710-8]
11710 OB	Digital hologram as a display optical system [11710-9]
11710 0D	Holography in the visual arts practice: research and production [11710-11]
11710 OE	Facilitating advancements in holographic techniques with dedicated high power laser combiners [11710-12]
	DIGITAL AND COMPUTER-GENERATED HOLOGRAPHY
11710 OF	CHIMERA and Denisyuk hologram: comparison and analysis (Invited Paper) [11710-13]
11710 OH	Real object-based holographic stereogram printing system using a high-resolution one-dimensional moving camera array [11710-15]
11710 OI	High-resolution hologram generation using wavefront recording plane method [11710-16]
11710 OK	Resolution enhanced partial aperture imaging system using annular coded phase reflectors [11710-18]
11710 OL	Pixelated holographic reflector recording for retinal projection devices [11710-19]

POSTER SESSION

11710 0M

2D/3D convertible holographic waveguide-type AR system using the liquid-crystalline microlens array with the electro-switching polarizer [11710-20]