PROCEEDINGS OF SPIE

Liquid Crystals XXVI

lam Choon Khoo *Editor*

22–23 August 2022 San Diego, California, United States

Sponsored and Published by SPIE

Volume 12207 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 *Liquid Crystals XXVI*, edited by Iam Choon Khoo, Proc. of SPIE 12207, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 0277-786X

ISSN: 1996-756X (electronic)

ISBN: 9781510653986

ISBN: 9781510653993 (electronic)

Published by

SPIE

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

SPIE.ora

Copyright © 2022 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.



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

v Conference Committee

	OPTICAL/PHOTONIC DEVICES AND APPLICATIONS
12207 02	Photorefractive effect of smectic liquid crystals and their application to laser ultrasonic remote sensing (Invited Paper) [12207-5]
	NOVEL LIQUID CRYSTALLINE AND SOFT MATERIALS/STRUCTURE
12207 03	Transition to spatiotemporal intermittency and defect turbulence in a liquid crystal light valve with translational optical feedback (Invited Paper) [12207-9]
	PHOTOALIGNMENT, RESONATOR, AND BEAM STEERING
12207 04	Cholesteric ring resonators (Invited Paper) [12207-14]
12207 05	Influence of some smectic liquid crystals' retardation switching behavior on beam steering performance (Invited Paper) [12207-15]
	4-G, HIGH POWER OPTICS, AND PHOTOREFRACTIVE
12207 06	Stable colloidal suspension of graphene oxide liquid crystals: optical characteristics and electro-optic switching for sample (Invited Paper) [12207-43]
12207 07	Performance comparison of continuous optical beam steering approaches (Invited Paper) [12207-20]
	IMAGING, ACTIVE OPTICS, AND BIOSENSING
12207 08	Scattering-based microscope imaging of light beams in soft birefringent media with orientational fluctuations (Invited Paper) [12207-22]

	CHARACTERIZATION, FILTER, CHIRAL- AND NANO-OPTICS
12207 09	Diffraction of obliquely incident light at oblique helicoidal cholesteric (Keynote Paper) [12207-29]
12207 0A	Liquid crystal beam steering devices for LiDAR applications (Invited Paper) [12207-31]
	POSTER SESSION
12207 OB	Morphological transition of labyrinthine patterns in frustrated chiral nematic liquid crystals [12207-37]
12207 0C	Solubility and molecular alignment behavior of liquid-crystalline polymers by scanning wave photopolymerization [12207-41]