## PROCEEDINGS OF SPIE

## Organic and Hybrid Sensors and Bioelectronics XV

Ioannis Kymissis Emil J. List-Kratochvil Ruth Shinar Editors

21–22 August 2022 San Diego, California, United States

Sponsored and Published by SPIE

**Volume 12210** 

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 *Organic and Hybrid Sensors and Bioelectronics XV*, edited by Ioannis Kymissis, Emil J. List-Kratochvil, Ruth Shinar, Proc. of SPIE 12210, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 0277-786X

ISSN: 1996-756X (electronic)

ISBN: 9781510654044

ISBN: 9781510654051 (electronic)

Published by

SPIE

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

SPIE.org

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

	VOLATILE ORGANIC CHEMICAL (VOC) SENSING
12210 02	Electronic-nose for plant health monitoring in a closed environment system (Invited Paper) [12210-11]
12210 03	Toward chemical sensing: an electrochemical study of the selectivity trend of metal phthalocyanines [12210-12]
	NEUROMORPHIC AND BIOELECTRONIC DEVICES I
12210 04	Stability of fiber-based organic electrochemical transistors with a gel electrolyte for wearable electronics [12210-26]
	NEUROMORPHIC AND BIOELECTRONIC DEVICES II
12210 05	On the modeling of organic electrochemical transistors (Invited Paper) [12210-29]
	POSTER SESSION
12210 06	Blue LED light enhances the growth of Cinchona officinalis L. cultured in vitro [12210-35]