PROCEEDINGS OF SPIE

Next Generation Technologies for Solar Energy Conversion VII

Oleg V. Sulima
Gavin Conibeer
Editors

29–31 August 2016
San Diego, California, United States

Sponsored and Published by
SPIE

Volume 9937

Proceedings of SPIE 0277-786X, V. 9937

Next Generation Technologies for Solar Energy Conversion VII, edited by Oleg V. Sulima,
Gavin Conibeer, Proc. of SPIE Vol. 9937, 99370Z · © 2016 SPIE
CCC code: 0277-786X/16/$18 · doi: 10.1117/12.2262169

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 *Next Generation Technologies for Solar Energy Conversion VII*, edited by Oleg V. Sulima, Gavin Conibeer, Proceedings of SPIE Vol. 9937 (SPIE, Bellingham, WA, 2016) Six-digit Article CID Number.

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

ISBN: 9781510602656
ISBN: 9781510602663 (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

Printed in the United States of America.

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

SPIE. DIGITAL LIBRARY
SPIEDigitalLibrary.org

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 six-digit CID article numbering system structured as follows:

- The first four 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

NEW CONCEPTS AND APPROACHES III

POSTER SESSION

Authors

Numbers in the index correspond to the last two digits of the six-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first four digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Conference Committee

Symposium Chair

Oleg V. Sulima, GE Global Research (United States)

Conference Chairs

Oleg V. Sulima, GE Global Research (United States)
Gavin Conibeer, The University of New South Wales (Australia)

Conference Program Committee

Andrew J. Ferguson, National Renewable Energy Laboratory (United States)
Alberto Salleo, Stanford University (United States)
Sean E. Shaheen, University of Colorado at Boulder (United States)
Wilfried G. J. H. M. van Sark, Utrecht Universiteit (Netherlands)
Xianfan Xu, Purdue University (United States)

Session Chairs

1 New Concepts and Approaches I
Oleg V. Sulima, GE Global Research (United States)

2 Quantum Dots, Wires, and Wells
Gavin Conibeer, The University of New South Wales (Australia)

3 Photon Management
Peter Bermel, Purdue University (United States)

4 New Designs and Concepts for Organic PV
Sean E. Shaheen, University of Colorado Boulder (United States)

5 New Concepts and Approaches II
Andru J. Prescod, SunShot Initiative, United States Deptartmrent of Energy (United States) and ManTech International Corporation (United States)

6 New Concepts and Approaches III
Andru J. Prescod, SunShot Initiative, United States Deptartment of Energy (United States) and ManTech International Corporation (United States)