

PROGRESS IN BIOMEDICAL OPTICS AND IMAGING

Vol. 19 No. 2

Therapeutics and Diagnostics in Urology 2018

Hyun Wook Kang
Kin Foong Chan
Editors

27–28 January 2018
San Francisco, California, United States

Sponsored and Published by
SPIE

Volume 10468

Proceedings of SPIE, 1605-7422, V. 10468

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

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 *Therapeutics and Diagnostics in Urology 2018*, edited by Hyun Wook Kang, Kin Foong Chan, Proceedings of SPIE Vol. 10468 (SPIE, Bellingham, WA, 2018) Seven-digit Article CID Number.

ISSN: 1605-7422

ISSN: 1996-756X (electronic)

ISBN: 9781510614215

ISBN: 9781510614222 (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 © 2018, 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 \$18.00 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 1605-7422/18/\$18.00.

Printed in the United States of America V m7 i ffUb '5 gg: WJUH' gē bWZi bXYf' JW bgY' Zca 'GD-9.

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 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	<i>Authors</i>
vii	<i>Conference Committee</i>

LASER LITHOTRIPSY I

10468 06	Thulium fiber laser induced vapor bubbles using bare, tapered, ball, hollow steel, and muzzle brake fiber tips [10468-6]
----------	---

OPTICAL IMAGING

10468 0A	Quantitative assessment of the mechanical properties of prostate tissue with optical coherence elastography [10468-10]
----------	---

LASER TREATMENT II

10468 0F	Comparison of a novel high-power blue diode laser ($\lambda=442$ nm) with Ho:YAG ($\lambda=2100$ nm), Tm fiber ($\lambda=1940$ nm), and KTP ($\lambda=532$ nm) lasers for soft tissue ablation [10468-15]
----------	--

LASER LITHOTRIPSY II

10468 0G	Scanning electron microscopy of real and artificial kidney stones before and after Thulium fiber laser ablation in air and water [10468-17]
10468 0H	Optimization of a novel Tm fiber laser lithotripter in terms of stone ablation efficiency and retroplulsion reduction [10468-18]

POSTER SESSION

10468 0I	The effect of force on laser fiber burnback during lithotripsy [10468-16]
10468 0K	Optical clearing of vaginal tissues in cadavers [10468-20]
10468 0O	Fragmentation and dusting of large kidney stones using compact, air-cooled, high peak power, 1940-nm, Thulium fiber laser [10468-24]