PROCEEDINGS OF SPIE

[SPIDigitalLibrary.org/conference-proceedings-of-spie](https://spiedigitallibrary.org/conference-proceedings-of-spie)

Front Matter: Volume 7847

, "Front Matter: Volume 7847," Proc. SPIE 7847, Optoelectronic Devices and Integration III, 784701 (20 December 2010); doi: 10.1117/12.882971

SPIE.

Event: Photonics Asia 2010, 2010, Beijing, China

PROCEEDINGS OF SPIE

Optoelectronic Devices and Integration III

Xuping Zhang
Hai Ming
Alan Xiaolong Wang
Editors

18–20 October 2010
Beijing, China

Sponsored by
SPIE
COS—Chinese Optical Society

Cooperating Organizations

Beijing Institute of Technology (China) • Beijing University of Posts and Telecommunications (China)
Peking University (China) • Tsinghua University (China) • Zhejiang University (China) • Changchun
University of Science and Technology (China) • University of Shanghai for Science and Technology
(China) • Tianjin University (China) • Nankai University (China) • Capital Normal University (China)
Shanghai Institute of Optics and Fine Mechanics (China) • Changchun Institute of Optics and Fine
Mechanics (China) • Institute of Semiconductors (China) • Institute of Optics and Electronics (China)
Shanghai Institute of Technical Physics (China) • China Instrument and Control Society (China)
Optoelectronics Technology Committee, COS (China) • SPIE China Committee (China) • Japan Optical
Society (Japan) • Korea Optical Society (Korea, Republic of) • Australia Optical Society (Australia)
Singapore Optical Society (Singapore)

Supporting Organizations

China Association for Science and Technology (China)
National Nature Science Foundation (China)
The Ministry of Science and Technology (China)

Published by
SPIE

Volume 7847

Proceedings of SPIE, 0277-786X, v. 7847

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

The papers included 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. The papers published in these proceedings 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 this book:

Author(s), "Title of Paper," in *Optoelectronic Devices and Integration III*, edited by Xuping Zhang, Hai Ming, Alan Xiaolong Wang, Proceedings of SPIE Vol. 7847 (SPIE, Bellingham, WA, 2010) Article CID Number.

ISSN 0277-786X

ISBN 9780819483775

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 © 2010, 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 0277-786X/10/\$18.00.

Printed in the United States of America.

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

SPIDigitalLibrary.org

Paper Numbering: Proceedings of SPIE follow an e-First publication model, with papers published first online and then in print and on CD-ROM. Papers are published as they are submitted and meet publication criteria. A unique, consistent, permanent citation identifier (CID) number is assigned to each article at the time of the first publication. Utilization of CIDs allows articles to be fully citable as soon they are published online, and connects the same identifier to all online, print, and electronic versions of the publication. SPIE uses a six-digit CID article numbering system in which:

- 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. The complete citation is used on the first page, and an abbreviated version on subsequent pages. Numbers in the index correspond to the last two digits of the six-digit CID number.

Contents

xi	<i>Symposium Committees</i>
xiii	<i>Conference Committee</i>
xv	<i>Fibre optic systems for gas detection principles, progress, and prospects (Plenary Paper) [7853-150]</i> <i>B. Culshaw, Univ. of Strathclyde (United Kingdom)</i>

SESSION 1 PHOTONIC MATERIALS AND DEVICES

7847 02	Prospects and challenges of InN-based nanowire heterostructures and devices integrated on Si (Invited Paper) [7847-01] Z. Mi, H. P. T. Nguyen, K. Cui, X. Han, S. Zhang, Y.-L. Chang, McGill Univ. (Canada)
7847 03	Advanced nanocomposite lens materials for wafer-level optics [7847-02] H. Gan, National Institute of Metrology (China)
7847 04	Optical properties of CdSe_{1-x}S_x nanoparticles [7847-03] S. G. Raymond, D. Clarke, S. Janssens, G. V. M. Williams, Industrial Research Ltd. (New Zealand)
7847 05	Design and fabrication of uni-traveling-carrier InGaAs photodiodes [7847-04] H. Yang, Tyndall National Institute (Ireland); C. L. L. M. Daunt, Tyndall National Institute (Ireland) and Univ. College Cork (Ireland); F. Gity, K. Lee, W. Han, K. Thomas, B. Corbett, Tyndall National Institute (Ireland); F. H. Peters, Tyndall National Institute (Ireland) and Univ. College Cork (Ireland)
7847 07	Low-cost light-emitting-diode based leaf color meter for nitrogen status estimation in the rice field [7847-06] S. Sumriddetchkajorn, Y. Intaravanne, National Electronics and Computer Technology Ctr., National Science and Technology Development Agency (Thailand)
7847 08	A method for calibrating PMTs in T0 system for beam test [7847-07] S. Qian, Institute of High Energy Physics (China); Z. Fu, Institute of High Energy Physics (China) and Nanjing Univ. (China); Z. Ning, Institute of High Energy Physics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); Z. Wang, Institute of High Energy Physics (China); S. Yang, Univ. of Science and Technology of China (China); Y. Wang, Y. Heng, S. Liu, J. Zhang, Institute of High Energy Physics (China); M. Qi, Nanjing Univ. (China); Y. Zhen, Graduate Univ. of the Chinese Academy of Sciences (China); C. Li, Univ. of Science and Technology of China (China)
7847 09	Effect of solvents on the performance of P3HT:PCBM solar cells [7847-08] W. Li, J. Guo, X. Sun, B. Zhou, Shenzhen Univ. (China)

- 7847 0A **Image restoration for indirectly far-field image using microlenses array integrated with LCD** [7847-09]
F. Yang, A. Wang, D. Lei, C. Zhe, H. Ming, Univ. of Science and Technology of China (China)
- 7847 0B **Asymmetrical design for non-relaxed near-UV AlGaIn/GaN distributed Bragg reflectors** [7847-10]
T. Moudakir, Supélec (France) and Georgia Tech-CNRS (France); M. Abid, Georgia-Tech CNRS (France); B.-T. Doan, E. Demarly, Supélec (France); S. Gautier, G. Orsal, LMOPS, Univ. Paul Verlaine Metz (France) and Georgia-Tech CNRS (France); J. Jacquet, Supélec (France), LMOPS, Univ. Paul Verlaine Metz (France), and Georgia Tech-CNRS (France); A. Ougazzaden, Georgia Tech-CNRS (France); F. Genty, Supélec (France), LMOPS, Univ. Paul Verlaine Metz (France), and Georgia Tech-CNRS (France)
- 7847 0C **Magnetically-modulated refractive index of a magnetic fluid film based on cigar-shaped ferrite submicron particles** [7847-11]
P. Mormile, L. Petti, M. Rippa, Institute of Cybernetics, CNR (Italy); J. Guo, W. Song, Institute of Material Technology and Engineering (China); J. Zhou, Ningbo Univ. (China)

SESSION 2 SILICON PHOTONICS

- 7847 0D **Research on SOI-based micro-resonator devices (Invited Paper)** [7847-12]
X. Xiao, H. Xu, Y. Hu, L. Zhou, K. Xiong, Z. Li, Y. Li, Z. Fan, W. Han, Y. Yu, J. Yu, Institute of Semiconductors (China)
- 7847 0E **Study of silicon photonics based on standard CMOS foundry (Invited Paper)** [7847-13]
J. Yang, Y. Zhao, C. Qiu, W. Wang, G. Jiang, Y. Hao, X. Jiang, Zhejiang Univ. (China)
- 7847 0F **Performance improvement to silicon-on-insulator waveguide directional-coupler based devices** [7847-14]
D. Sun, I. Hasan, S. Abdul-Majid, Univ. of Ottawa (Canada); R. Vandusen, Carleton Univ. (Canada); Q. Zheng, A. Hussien, Univ. of Ottawa (Canada); C. Wang, Institute of Semiconductors (China); Z. Hu, Univ. of Ottawa (Canada); T. G. Tarr, Carleton Univ. (Canada); T. J. Hall, Univ. of Ottawa (Canada)
- 7847 0G **Pump to Stokes RIN transfer in silicon Raman lasers** [7847-15]
X. Liu, X. Sang, X. Liu, C. Yu, Beijing Univ. of Posts and Telecommunications (China)
- 7847 0H **Compact resonant Bragg-grating filters using submicron silicon-on-insulator(SOI) waveguide for optical communication network** [7847-16]
P. Prabhathan, Nanyang Technological Univ. (Singapore) and A*STAR Institute of Microelectronics (Singapore); V. M. Murukeshan, Nanyang Technological Univ. (Singapore); Z. Jing, A*STAR Institute of Microelectronics (Singapore)
- 7847 0I **Thermal dissipation in a laser and semiconductor optical amplifier** [7847-17]
J. Jacquet, Y. Abner, M. Choffla, C.-A. Paepegaey, K. Mheidly, Supélec, LMOPS (France)
- 7847 0K **Ytterbium-doped double-cladding fiber laser** [7847-19]
X. Zhang, Y. Song, H. Li, P. Zhang, J. Tian, X. Zhang, Beijing Univ. of Technology (China)
- 7847 0L **Glass-based integrated optical splitters: engineering oriented research** [7847-20]
Y. Hao, W. Zheng, J. Yang, X. Jiang, M. Wang, Zhejiang Univ. (China)

SESSION 3 PASSIVE COMPONENT I

- 7847 ON **Fabrication of a multimode-interference-based multimode power splitter in glass** [7847-22]
W. Xiang, W. Zheng, S. Jiang, M. Wang, J. Yang, Y. Hao, X. Jiang, Zhejiang Univ. (China)
- 7847 OO **Hybridized low-loss plasmonic-optical waveguides for ultra-compact integration** [7847-23]
Z. Sun, X. Zuo, J. Li, B. Liu, Xiamen Univ. (China)
- 7847 OP **An intrinsic limitation to silicon-on-insulator waveguide Mach-Zehnder interference-based electro-optic devices** [7847-24]
D. Sun, S. Abdul-Majid, Z. Hu, Univ. of Ottawa (Canada); R. Vandusen, Carleton Univ. (Canada); I. Hasan, Univ. of Ottawa (Canada); T. G. Tarr, Carleton Univ. (Canada); T. J. Hall, Univ. of Ottawa (Canada)
- 7847 OQ **Micro-ring resonators silicon-based modulator performance improvement** [7847-25]
Y. Zhang, G. Xi, T. Hu, W. Q. Zhang, Xi'an Univ. of Technology (China)
- 7847 OR **Design and implementation of a dichroic beam combiner based on the theory of photonic crystals** [7847-26]
P. Li, Beijing Institute of Technology (China) and Henan Univ. of Science and Technology (China); Z. Li, Beijing Institute of Technology (China); Y. Liu, Univ. of Aizu (Japan); Y. Li, L. Qian, Z. Wang, Beijing Institute of Technology (China)
- 7847 OS **Criterion of single-mode photonic liquid crystal fibers** [7847-27]
W. Sun, X. Liu, Y. Liu, Y. Jiang, Harbin Engineering Univ. (China)
- 7847 OT **New configuration of photonic logic gates based on single hexagonal-lattice photonic crystal ring resonator** [7847-28]
J. Jiang, J. Wang, X. Xu, J. Li, Fujian Normal Univ. (China); X. Chen, Minjiang Univ. (China); Y. Qiu, Z. Qiang, Fujian Normal Univ. (China)

SESSION 4 PASSIVE COMPONENT II

- 7847 OW **Optical waveguide oscillating field sensor (Invited Paper)** [7847-32]
Z. Cao, Shanghai Jiao Tong Univ. (China)
- 7847 OX **1.54- μ m electroluminescence from Si-rich erbium silicate (Invited Paper)** [7847-33]
G. Z. Ran, Y. Yin, F. Wei, W. J. Xu, G. G. Qin, Peking Univ. (China)
- 7847 OY **Design of narrow channel spacing photonic wire AWG on SOI with three stigmatic points** [7847-34]
R. Bai, A. Shen, Y. Li, Y. Hao, X. Jiang, J. Yang, Zhejiang Univ. (China)
- 7847 11 **The thermal analysis of polysiloxane rib waveguide** [7847-37]
C. Wen, J. Ji, X. Feng, Y. Song, W. Dou, National Univ. of Defense Technology (China)
- 7847 12 **Principle and applications of Faraday-Fabry-Perot cavity** [7847-38]
N. Di, J. Zhao, Northwestern Polytechnical Univ. (China)

- 7847 13 **Optical implementation of tree-type interconnection network using polarization control method** [7847-39]
J. Yang, J. Yang, J. Liu, X. Li, National Univ. of Defense Technology (China)
- 7847 14 **Proposal and study on plasmonic Bragg reflector based on MIM waveguides** [7847-40]
J. Ma, C. Li, H. Li, R. Tan, Shenzhen Univ. (China)

SESSION 5 FIBER LASERS AND AMPLIFIERS

- 7847 15 **An all-fiber laser for cylindrical vector beam (Invited Paper)** [7847-41]
L. Xu, R. Zheng, C. Gu, A. Wang, H. Ming, Univ. of Science and Technology of China (China)
- 7847 16 **Studies on nonlinear loss and laser dynamics: from multi-wavelength CW lasing to multi-pulsing transition (Invited Paper)** [7847-42]
F. Li, The Hong Kong Polytechnic Univ. (Hong Kong, China); J. N. Kutz, Univ. of Washington (United States); P. K. A. Wai, The Hong Kong Polytechnic Univ. (Hong Kong, China)
- 7847 19 **Design and simulation of ultrashort pulsed waveguide lasers using single-walled carbon nanotube saturable absorber** [7847-45]
H. Chen, C. Huang, Yangtze Univ. (China)
- 7847 1C **Analysis of the refractive index distribution of the even-numbered polygonal GRIN lens** [7847-48]
L. Zhu, Z. Zhou, Y. Yang, G. Sun, Q. Wang, Southwest Univ. of Science and Technology (China)
- 7847 1F **DFB fiber laser hydrophone based on a intensity demodulation** [7847-51]
X. Li, Q. Chai, J. Zhang, Q. Hao, Q. Li, Harbin Engineering Univ. (China); P. Lu, Communications Research Ctr. Canada (Canada); W. Sun, L. Yuan, Harbin Engineering Univ. (China); G. Peng, The Univ. of New South Wales (Australia)

POSTER SESSION

- 7847 1G **The polarization properties analysis on photonic crystal fibers side-pulsed by CO₂ laser** [7847-31]
W. Qian, C. Zhao, X. Dong, J. Kang, China Jiliang Univ. (China); J. Guo, H. Wei, Yangtze Optical Fibre and Cable Co., Ltd. (China)
- 7847 1H **Large blue shift of the absorption edge in modified potential InGaAs/InAlAs coupled quantum wells** [7847-52]
Z. Xu, C. Wang, Z. Yuan, Zhejiang Univ. of Science and Technology (China); W. Qi, Zhejiang Univ. City College (China)
- 7847 1I **Effect of buffer layers on the performance of P3HT:PCBM solar cells** [7847-53]
W. Li, J. Guo, X. Sun, B. Zhou, Shenzhen Univ. (China)
- 7847 1J **The 3D buried optical splitter under non-uniform electric field** [7847-54]
Z. Zhou, Y. Xiao, L. Zhu, C. Luo, Southwest Univ. of Science and Technology (China)

- 7847 1K **Calculation of electromechanical coupling coefficient of quartz crystal in decoupling plane** [7847-55]
K. Yu, T. Liu, Beijing Univ. of Technology (China)
- 7847 1L **Ultracompact channel filters based on race-track photonic crystal ring resonators** [7847-56]
X. Xu, J. Wang, J. Jiang, J. Li, Fujian Normal Univ. (China); X. Chen, Minjiang Univ. (China); Y. Qiu, Z. Qiang, Fujian Normal Univ. (China)
- 7847 1M **Influence of varied doping structure on the photo-emission of reflection-mode photocathode** [7847-57]
J. Niu, Nanyang Institute of Technology (China) and Nanjing Univ. of Science and Technology (China); G. Zhang, Nanyang Institute of Technology (China); Y. Zhang, B. Chang, Nanjing Univ. of Science and Technology (China)
- 7847 1N **Ferromagnetism in transparent thin film of Co-doped ZnO** [7847-58]
X. Su, L. Wang, J. Chen, X. Wan, L. Kong, Beijing Univ. of Technology (China)
- 7847 1O **Research of broadband waveguide amplifiers based on long-period waveguide grating and multilayer medium thin film** [7847-59]
H. Chen, C. Huang, Yangtze Univ. (China)
- 7847 1Q **Hydrophone based on the feedback effect of composite cavity optical fiber laser** [7847-61]
Q. Hao, Q. Chai, X. Li, J. Zhang, Q. Li, Harbin Engineering Univ. (China); P. Lu, Communications Research Ctr. Canada (Canada); G. Peng, The Univ. of New South Wales (Australia)
- 7847 1T **Analysis of clustering in $\text{Eu}(\text{DBM})_3$ phen-doped polymer optical fiber by effective-medium approximation** [7847-64]
Z. Feng, Z. Zheng, L. Lin, Fujian Normal Univ. (China); H. Ming, Univ. of Science and Technology of China (China)
- 7847 1U **Research of thermal stress between long linear MCT arrays and lead board using FEM** [7847-65]
W. Wu, Shanghai Institute of Technical Physics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); Y. Wu, Graduate Univ. of the Chinese Academy of Sciences (China); D. Liu, Shanghai Institute of Technical Physics (China)
- 7847 1W **Analysis on the Gaussian approximation for the far-field of optical fiber** [7847-67]
L. Li, F. Guo, Fujian Normal Univ. (China)
- 7847 1Y **Vacuum packaging design and analysis for UFPA** [7847-69]
D. Liu, Q. Xu, Shanghai Institute of Technical Physics (China)
- 7847 1Z **Numerical simulation and analysis of the sensitivity of strength-based optical fiber sensors** [7847-70]
J. Dai, K. Zhang, L. Zhai, K. Yang, J. Yang, B. Yu, L. Lu, Anhui Univ. (China)
- 7847 20 **Design and simulation of fast-pulse control signal generator for the electro-holographic optical switch** [7847-71]
Y. Song, J. Ji, W. Dou, C. Wen, National Univ. of Defense Technology (China)

- 7847 21 **A novel optical approach based on subjective speckle for tracking on smooth glass** [7847-72]
L. Dong, A. Wang, H. Chang, F. Yang, H. Ming, Univ. of Science and Technology of China (China)
- 7847 22 **A modified squeezed radio model of squeezed photonic crystal fibers** [7847-73]
P. Song, Univ. of Jinan (China); L. Zhang, Shandong Univ. (China)
- 7847 23 **Fabrication of polysiloxane optical ridge waveguides for optical interconnection** [7847-74]
X. Feng, National Univ. of Defense Technology (China) and Information Engineering Univ. (China); J. Ji, W. Dou, C. Weng, National Univ. of Defense Technology (China)
- 7847 25 **Power-equalized C+L band multi-wavelength fiber laser based on cascaded semiconductor optical amplifier** [7847-76]
Z. Wang, M. Hu, D. Jia, T. Yang, Tianjin Univ. (China)
- 7847 26 **A LED-induced capillary fluorescent detection device designed for the space lab** [7847-77]
X. Lee, X. Hu, Z. Zhang, Y. Deng, Beijing Institute of Technology (China)
- 7847 27 **Multiphoton upconversion emission switching in Tm,Yb co-doped nanocrystalline yttria** [7847-78]
L. Li, G. Z. Dong, X. L. Zhang, M. Nie, J. H. Cui, X. W. Zhang, R. M. Li, Harbin Engineering Univ. (China)
- 7847 28 **Research on broadband wavelength tunable erbium-doped fiber ring laser** [7847-79]
Q. Wang, Y. Zhao, Northeastern Univ. (China)
- 7847 29 **Wavelength-switchable erbium-doped fiber ring laser employing chirped Moiré fiber grating and tunable Sagnac loop interferometer filter** [7847-80]
S. Lu, Beijing Vocational College of Labour and Social Security (China); S. Feng, J. Zheng, Beijing Jiaotong Univ. (China)
- 7847 2A **Theoretical analysis of a novel polarization-insensitive AWG demultiplexer based on Si nanowire and slot waveguides** [7847-81]
L. Zhao, J. An, J. Zhang, S. Song, Y. Wu, X. Hu, Institute of Semiconductors (China)
- 7847 2B **Waveform monitoring based on symmetric Mach-Zehnder interferometer optical switch and low-bandwidth PIN** [7847-82]
Y. Yang, Donghua Univ. (China); C. Jian, BeiHang Univ. (China); X. Lin, Donghua Univ. (China)
- 7847 2C **Thermal research of infrared sight thermoelectric cooler control circuit under temperature environment** [7847-83]
Y. Gao, Nanyang Institute of Technology (China) and Nanjing Univ. of Science and Technology (China); H. Ding, X. Xue, Y. Xu, Nanyang Institute of Technology (China); B. Chang, Nanjing Univ. of Science and Technology (China)
- 7847 2D **Modification of voltage model for electric-field-assisted ion-exchange method of glass-based waveguide** [7847-84]
S. Jiang, W. Zheng, Y. Hao, M. Wang, X. Jiang, J. Yang, Zhejiang Univ. (China)

- 7847 2E **Flat-top steep-edge response of photodetectors by circuit control method** [7847-85]
L. Wang, Y. Huang, X. Duan, Q. Yan, X. Ren, H. Huang, Q. Wang, X. Zhang, Beijing Univ. of Posts and Telecommunications (China)
- 7847 2F **Optimization of an ultracompact triplexer using planar photonic crystal waveguide** [7847-86]
L. He, X. Xu, Nanchang Univ. (China); F. Xin, PingXiang College (China); T. Yu, Nanchang Univ. (China) and Institute of Semiconductors (China); L. Fang, Q. Liao, Nanchang Univ. (China)
- 7847 2G **Drop filters in a rod-type photonic crystal based on self-collimation ring resonators** [7847-87]
G. Lin, X. Chen, N. Lin, Minjiang Univ. (China); J. Li, Y. Qiu, Fujian Normal Univ. (China)
- 7847 2H **InGaAs detector arrays hermetic encapsulation technology** [7847-88]
Q. Xu, D. Liu, Shanghai Institute of Technical Physics (China)
- 7847 2I **A novel optical scanning device based on electrowetting microprism** [7847-89]
T. Chen, Z. Liang, Nanjing Univ. of Posts and Telecommunications (China)
- 7847 2J **A novel silica-waveguide acousto-optic frequency shifter using ZnO piezoelectric films and its beam propagation analysis** [7847-90]
C. Chen, B. Shi, L. Guo, M. Zhao, Changchun Univ. of Science and Technology (China)
- 7847 2N **Experimental study on temperature dependence of dispersion of G.652 fiber and its effect on high-speed optical communication system and compensation** [7847-94]
K. Zhong, N. Jia, T. Li, M. Wang, J. Chi, J. Sun, Beijing Jiaotong Univ. (China)
- 7847 2P **Light output enhancement of light-emitting diodes with photonic crystal structure** [7847-96]
X. Wang, C. Niu, Z. Zhou, Beijing Information Science and Technology Univ. (China)
- 7847 2Q **Characterization and fabrication of rare-earth doped amplifying fibers based on atomic layer deposition** [7847-97]
X. Sun, Y. Dong, C. Li, X. Liu, Shanghai Univ. (China); S. Li, Aalto Univ. School of Science and Technology (Finland) and Beneq Oy (Finland)
- 7847 2R **A novel design of dispersion and dispersion slope compensator for LEAF fiber in WDM systems** [7847-98]
H. Zhang, Fujian Normal Univ. (China) and Fujian Jiangxia College (China); Y. Qiu, H. Chen, Fujian Normal Univ. (China); Y. Gao, Fujian Normal Univ. (China) and Fuzhou No. 41 Middle School (China); J. Li, L. Wang, Fujian Normal Univ. (China)
- 7847 2S **Parallel-cascaded micro-ring resonators waveguide photodetector with flat-top and steep-edge response** [7847-99]
Y. Qin, Y. Huang, X. Ren, X. Duan, H. Huang, Q. Wang, Beijing Univ. of Posts and Telecommunications (China)

- 7847 2T **Experimental investigation on erbium-doped superfluorescent fiber source by using high-performance erbium-doped fiber for the fiber optic gyroscope** [7847-100]
D. Zhang, Shanghai Hengtong Optic & Electronic Technology Co., Ltd. (China) and Southeast Univ. (China); H. Wan, Southeast Univ. (China); J. Lai, H. Rong, X. Zhao, Y. Wang, D. Yang, Shanghai Hengtong Optic & Electronic Technology Co., Ltd. (China); X. Sun, Southeast Univ. (China)
- 7847 2U **Investigation of the coupling efficiency for specialty solid coupled optical taper** [7847-101]
X. Fu, Z. Chen, Q. Guo, F. Pang, T. Wang, Shanghai Univ. (China)
- 7847 2V **Fluorescence properties of RE-doped silica spheres** [7847-102]
C. Q. Huang, Q. Cai, W. J. Tian, China Jiliang Univ. (China)
- 7847 2W **The effects of annealing temperature on structure and photoluminescence of SiC/AlN bilayer thin film** [7847-103]
X. He, H. Li, W. Fan, Z. Do, Hefei Univ. of Technology (China)
- 7847 2X **Tunable drop filters based on photonic crystal self-collimation ring resonators** [7847-104]
J. Li, Fujian Normal Univ. (China); X. Chen, Minjiang Univ. (China); X. Xu, J. Jiang, Z. Qiang, Fujian Normal Univ. (China); G. Lin, Minjiang Univ. (China); H. Zhang, Fujian Normal Univ. (China) and Fujian Jingxia College (China)
- 7847 2Y **Exponential-doping GaAs NEA photocathode grown by MBE** [7847-105]
J. Zhang, Y. Zhang, Y. Du, B. Li, X. Fu, B. Chang, Nanjing Univ. of Science and Technology (China)
- 7847 2Z **Semiconductor quantum dots fiber amplifier excited by evanescent wave** [7847-106]
L. Liu, F. Pang, H. Guo, Z. Chen, T. Wang, Shanghai Univ. (China)
- 7847 30 **United model of fiber coupler based on variation technique** [7847-107]
J. Ren, Y. Hu, X. Zhang, Z. Hu, National Univ. of Defense Technology (China); Y. Liu, Taiyuan Satellite Launch Ctr. (China)
- 7847 31 **Numerical study on laser and infrared compatible stealth by forming "hole-digging spectrum" of doped photonic crystal** [7847-109]
X. Zhao, Q. Zhao, Q. Zhang, L. Wang, Xi'an Research Institute of High Technology (China)
- 7847 32 **Calculation of reciprocal velocity curves of intrinsic surface acoustic wave in quartz crystal** [7847-110]
T. Liu, K. Yu, Beijing Univ. of Technology (China)

Author Index

Symposium Committees

General Chairs

Ralph James, Brookhaven National Laboratory (United States)
Bingkun Zhou, Tsinghua University (China)

General Cochairs

Arthur Chiou, National Yang-Ming University (Taiwan, China)
Zhizhan Xu, Shanghai Institute of Optics and Fine Mechanics (China)
Jianlin Cao, China Ministry of Science and Technology (China)
Junhao Chu, Shanghai Institute of Technical Physics (China)

Honorary Chairs

Daheng Wang, Chinese Academy of Sciences (China)
Guoguang Mu, Nankai University (China)

Technical Program Chair

Songlin Zhuang, Shanghai University of Science and Technology (China)

Technical Program Cochairs

Qiming Wang, Institute of Semiconductors (China)
Xu Liu, Zhejiang University (China)
Qihuang Gong, Peking University (China)
Yimo Zhang, Tianjin University (China)

Local Organizing Committee Chair

Shusen Xie, Fujian Normal University (China)

Local Organizing Committee Cochairs

Guoqiang Ni, Beijing Institute of Technology (China)
Xiaomin Ren, Beijing University of Posts and Telecommunications (China)
Daoyin Yu, Tianjin University (China)
Ying Gu, PLA General Hospital (China)
Huilin Jiang, Changchun University of Science and Technology (China)

General Secretary

Guoqiang Ni, Beijing Institute of Technology (China)

Administrative Vice General Secretary

Boyu Ding, Beijing Institute of Technology (China)

Vice General Secretaries

Hanyi Zhang, Tsinghua University (China)

Ya Cheng, Shanghai Institute of Optics and Fine Mechanics (China)

Zhongwei Fan, Academy of Opto-electronics (China)

Jianxin Chen, Fujian Normal University (China)

Lan Wu, Zhejiang University (China)

Jianping Zhang, Chinese Optical Society (China)

Local Organizing Committee

Chongxiu Yu, Beijing University of Posts and Telecommunications
(China)

Hongda Chen, Institute of Semiconductors (China)

Yuejin Zhao, Beijing Institute of Technology (China)

Kangnan Qi, Beijing Optical Society (China)

Chunqing Gao, Beijing Institute of Technology (China)

Tiegen Liu, Tianjin University (China)

Xiaocong Yuan, Nankai University (China)

Weiming Chen, Chongqing University (China)

Lanxing Shao, Shanghai Optical Society (China)

Baosheng Liu, Beijing Optical Society (China)

Xin Wang, Hubei Optical Society (China)

Lin Zhai, Chinese Optical Society (China)

Conference Committee

Conference Chairs

Xuping Zhang, Nanjing University (China)
Hai Ming, University of Science and Technology of China (China)
Alan Xiaolong Wang, Omega Optics, Inc. (United States)

Program Committee

Seth R. Bank, The University of Texas at Austin (United States)
Xiaoyi Bao, University of Ottawa (Canada)
Maggie Yihong Chen, Texas State University San Marcos (United States)
Kin-Seng Chiang, City University of Hong Kong (Hong Kong, China)
Zhong-Cheng Liang, Nanjing University of Posts and
Telecommunications (China)
Xuejun Lu, University of Massachusetts Lowell (United States)
Gang-Ding Peng, The University of New South Wales (Australia)
Yuejiang Song, Nanjing University (China)
Harish Subbaraman, Omega Optics, Inc. (United States)
Hwa-Yaw Tam, The Hong Kong Polytechnic University (Hong Kong,
China)
Lixin Xu, University of Science and Technology of China (China)

Session Chairs

- 1 Photonic Materials and Devices
Xuping Zhang, Nanjing University (China)
Ray T. Chen, The University of Texas at Austin (United States)
- 2 Silicon Photonics
Alan Xiaolong Wang, Omega Optics, Inc. (United States)
Zhongcheng Liang, Nanjing University of Posts and
Telecommunications (China)
- 3 Passive Component I
Alan Xiaolong Wang, Omega Optics, Inc. (United States)
Zhongcheng Liang, Nanjing University of Posts and
Telecommunications (China)
- 4 Passive Component II
Hai Ming, University of Science and Technology of China (China)
Lixin Xu, University of Science and Technology of China (China)

- 5 Fiber Lasers and Amplifiers
Hai Ming, University of Science and Technology of China (China)
Lixin Xu, University of Science and Technology of China (China)