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Front Matter: Volume 8722

, "Front Matter: Volume 8722," Proc. SPIE 8722, Fiber Optic Sensors and Applications X, 872201 (4 June 2013); doi: 10.1117/12.2031903

SPIE.

Event: SPIE Defense, Security, and Sensing, 2013, Baltimore, Maryland, United States

PROCEEDINGS OF SPIE

Fiber Optic Sensors and Applications X

**Eric Udd
Gary Pickrell
Henry H. Du
Jerry J. Benterou
Xudong Fan
Alexis Mendez
Stephen J. Mihailov
Anbo Wang
Hai Xiao**
Editors

**2–3 May 2013
Baltimore, Maryland, United States**

Sponsored and Published by
SPIE

Volume 8722

Proceedings of SPIE 0277-786X, V. 8722

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

Fiber Optic Sensors and Applications X, edited by Eric Udd, Gary Pickrell, Henry H. Du, Jerry J. Benterou, Xudong Fan, Alexis Mendez, Stephen J. Mihailov, Anbo Wang, Hai Xiao, Proc. of SPIE Vol. 8722, 872201
© 2013 SPIE · CCC code: 0277-786X/13/\$18 · doi: 10.1117/12.2031903

Proc. of SPIE Vol. 8722 872201-1

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.

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Author(s), "Title of Paper," in *Fiber Optic Sensors and Applications X*, edited by Eric Udd, Gary Pickrell, Henry H. Du, Jerry J. Benterou, Xudong Fan, Alexis Mendez, Stephen J. Mihailov, Anbo Wang, Hai Xiao, Proceedings of SPIE Vol. 8722 (SPIE, Bellingham, WA, 2013) Article CID Number.

ISSN: 0277-786X

ISBN: 9780819495136

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

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Introduction

Fiber Optic Sensors and Applications X continues with a tradition of SPIE sponsored fiber optic sensor conferences that started with the *Fiber Optic and Laser Sensor* series of conferences in 1983 that were in part derived on still earlier conferences including *Laser Inertial Rotation Sensors* in 1978 with several fiber optic gyro papers and several other fiber and integrated optic conferences that contained sessions on fiber sensors. This history now spans 35 years with many types of fiber optic sensors. Often a particular type of fiber sensor was highlighted in the conference, and in the case of these proceedings, an effort was made to collect papers that would serve to celebrate 25 years of fiber grating sensor development. As with every anniversary of technology, an exact beginning is sometimes hard to define. In this case, early effort in approximately the 1987 to 1988 time frame were used as the starting point, as the first commercially available fiber gratings began to appear and organizations almost immediately began to apply them to sensor applications.

Several invited papers describe various applications of fiber grating sensor technology and it is hoped in some sense that these provide a brief history of the technology as well as some directions for the future.

Other papers contained in this volume are directed toward other applications and there are several that involve biomedical and biochemical sensing.

**Eric Udd
Gary Pickrell
Henry H. Du**