

**Reliability and Materials Issues of III–V
and II–VI Semiconductor Optical
and Electron Devices and Materials II**

MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 1432

Reliability and Materials Issues of III-V and II-VI Semiconductor Optical and Electron Devices and Materials II

Symposium held April 9–13, 2012, San Francisco, California, U.S.A.

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Materials Research Society
Warrendale, Pennsylvania



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Cambridge, New York, Melbourne, Madrid, Cape Town,
Singapore, São Paulo, Delhi, Mexico City

Cambridge University Press
32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org
Information on this title: www.cambridge.org/9781605114095

Materials Research Society
506 Keystone Drive, Warrendale, PA 15086, USA
<http://www.mrs.org>

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First published 2012

The material is based upon work supported in part by the Army Research Office Grant Number (**W911NF-12-1-0029**). The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.

CODEN: MRSPDH

ISBN: 978-1-60511-409-5 Hardback

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PREFACE

Symposium G, “Reliability and Materials Issues of II-VI and III-V Semiconductor Optical and Electron Devices and Materials II”, was held April 9 – April 13 at the 2012 MRS Spring Meeting in San Francisco, California.

Achieving high reliability is a key issue for semiconductor optical and electrical devices and is as important as device performance for commercial application. Degradation of both optical and electrical devices is strongly related to the materials issues. A variety of material defects can occur during the device fabrication processes, i.e., crystal growth, impurity diffusion, ion-implantation, wet/dry etching, metallization, bonding, packaging, etc.

This symposium presented the state-of-the-art results on reliability and degradation of various semiconductor optical and electrical devices as well as their materials issues in thin-film growth, wafer processing, and device fabrication processes.

This proceedings volume includes papers presented in the following sessions of Symposium G during the meeting:

- Laser Reliability and Defects
- LEDs and Crystal Growth
- Crystal Growth
- Characterization and Theoretical Calculation
- Recombination Enhanced Point Defect Reaction
- HEMT Reliability
- Electron Devices and Reliability
- Radiation Effect and Electron Devices
- Solar Cells and TFTs
- Novel Structures

Osamu Ueda
Mitsuo Fukuda
Kenji Shiojima
Edwin L. Piner

June 2012

ACKNOWLEDGMENTS

The Symposium Organizers are pleased to acknowledge the invited speakers for the outstanding quality of their work:

Nobuyuki Ikoma	Shigetaka Tomiya
Shinichi Kamiya	Robert W. Herrick
Thomas Kuech	Leonard Brillson
Koshi Ando	Koji Maeda
Tetsuya Suemitsu	Jesus A. del Alamo
Enrico Zanoni	Toshikazu Nishida
Mark E. Law	Toshihiro Ohki

The Symposium Organizers also thank the session chairs for their efforts in overseeing the sessions and leading subsequent discussions:

Shigetaka Tomiya	Thomas Kuech
Robert W. Herrick	Yuzo Shinozuka
Koshi Ando	Nobuyuki Ikoma
Jesus A. del Alamo	Mark E. Law
Toshikazu Nishida	

The Symposium Organizers also express their gratitude to Japan Society of Applied Physics (JSAP) for financial support, enabling us to present this Symposium G, “Reliability and Materials Issues of III-V and II-VI Semiconductor Optical and Electron Devices and Materials II”.

Finally, they are deeply indebted to the Materials Research Society staff, as well as the Spring Meeting Chairs, for the development of an outstanding conference.

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