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Zinc Oxide and Related Materials

Editors: Jürgen Christen, Chennupati Jagadish, David C. Look, Takafumi Yao and Frank Bertram
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**MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 957**

Zinc Oxide and Related Materials

Symposium held November 27–30, 2006, Boston, Massachusetts, U.S.A.

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PREFACE

Zinc Oxide and Related Materials (e.g. MgO, CdO) are drawing considerable interest in recent years worldwide due to their potential for applications in LEDs for solid-state lighting, UV lasers and detectors, transparent electronics, bio sensors, acoustic devices, high-temperature electronics, and space electronics due to radiation hardness of these materials. Symposium K, "Zinc Oxide and Related Materials," held November 27–30 at the 2006 MRS Fall Meeting in Boston, Massachusetts featured the first symposium on this subject. The symposium consisted of 15 invited papers, 79 contributed oral papers, and 113 poster presentations, featuring sessions covering topics on theory, bulk and epitaxial growth, characterization, doping, defects, heterostructures, quantum wells, quantum dots, nanowires, nanorods, nanopillars, electrical, optical and structural properties, processing, transparent conducting oxides, Ohmic contacts, Schottky diodes, light emitting diodes, lasers, photodetectors, surface acoustic wave devices, sensors, spintronics and magnetism, and thin-film transistors for large area displays. Symposium K was well attended with lively discussions on many topics of current interest. This proceedings volume features selected papers presented at the symposium giving an overview of research carried out in laboratories worldwide. The symposium drew an audience from universities, research institutions, Government laboratories, and industry.

We wish to thank all the invited speakers, session chairs, contributed oral and poster paper presenters and participants for making the symposium a grand success. We gratefully acknowledge the generous financial support of the Air Force Office of Scientific Research and the U.S. Army Research Office.

Jürgen Christen
Chennupati Jagadish
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Frank Bertram

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