Foreword

The 2008 U.S. Workshop on the Physics and Chemistry of II–VI Materials was held in The Riviera Hotel, Las Vegas, from November 11 until November 13, 2008. This workshop was the 27th in the series, which began in October 1981 in Minneapolis. The first meeting was dedicated to the scientific and generic technological issues of importance for mercury cadmium telluride and its applications in infrared imaging. The workshop interest has now evolved to include all II–VI materials having application in a variety of emitters and detectors. In 2008, 70 papers were presented at the workshop, and we are able to publish more than half of them in this volume. The workshop co-chairs were I. B. Bhat, of Rensselaer Polytechnic Institute, T. N. Casselman, of C-Fourth Consultants & EPIR Technologies, Inc., and H. F. Schaaake, of DRS Infrared Technologies. Ralph Nadell, of Palisades Convention Management, Inc., and Yesim Anter, of the University of Illinois at Chicago, coordinated the workshop arrangements.

This year's recipient of the William E. Spicer Award, which was known as the Best Student Paper Award until 2004, was Ms. Sophie Derelle. Her paper was titled, "Experimental performance and Monte Carlo modelling of LWIR HgCdTe avalanche photodiodes." At that time, Ms. Perrais was pursuing her graduate degree at ONERA/DOTA/CIO in Palaiseau, France.

Much of the credit for editing this volume goes to the session organizers, for arranging prompt review of the papers, and to the authors, for choosing this forum to present their results. Allan Hahn and Lynnette Brown of the U.S. Air Force Research Laboratory, Wright-Patterson AFB, gave a keynote address on "It's too early to quit!: Today's success is not sufficient to fulfill tomorrow's requirements." Several interesting papers were presented in subject areas of ZnO materials, emerging detector technology, materials, devices, processing, characterization, surfaces and interfaces, impurity doping, and defects in II–VI materials.

The proceedings of the first ten workshops (from 1981 to 1991) were published in the *Journal of Vacuum Science and Technology*. Papers from the workshop from 1992 onward appear in special issues of the *Journal of Electronic Materials*.

The II–VI Workshop Committee would like to thank the following organizations for their continued sponsorship:

- U.S. Army CECOM Night Vision & Electronic Sensors Directorate
- U.S. Army Research Laboratory
- U.S. Army SMDC
- U.S. Navy Electro-Optics Center, Penn State Applied Research Laboratory
- Office of Naval Research
- Air Force Research Laboratory
- The Minerals, Metal & Materials Society

The American Physical Society endorsed this workshop.

S. Sivananthan
Director, Microphysics Laboratory, University of Illinois at Chicago,
845 W. Taylor St., Room 2360 A, Chicago, IL 60607

Y. Anter
Project Coordinator, Microphysics Laboratory, M/C 273, University of Illinois at Chicago,
845 W. Taylor St., Room 2360, Chicago, IL 60607

N.K. Dhar
Special Issue Co-Editor, Defense Advanced Research Projects Agency, 3701 North Fairfax Drive,
Arlington, VA 22203-1714