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Pacific Rim Laser Damage 2011

Optical Materials for High Power Lasers

**Jianda Shao
Koji Sugioka
Christopher J. Stolz**
Editors

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Introduction

The first Pacific Rim Laser Damage Symposium: Optical Materials for High Power Lasers (PLD 2011), organized by the SPIE and Shanghai Institute of Optics and Fine Mechanics (SIOM), successfully took place at the Blue Palace Hotel in Shanghai on 6-9 Nov 2011. The conference was devoted at high level to the recent developments in mechanism, simulation, modeling, characterization and resistance on laser damage of optical materials, and in advanced optical materials with high potentially applied for high power laser. The main topics included: i) high power laser damage (UV through IR), ii) ultrafast through CW laser irradiation effects, iii) laser ablation and laser machining, iv) high laser damage resistant coatings, v) characterization techniques and measurement protocols in laser damage, vi) defects, contamination, polishing, and surface damage, vii) mechanisms, modeling and simulations, viii) nonlinear laser crystals, ix) laser ceramics, and x) optical glass and fibers.

In this three-day conference, there are 90 papers accepted for oral presentations: contributed by over 100 researchers from more than 8 countries, including United States, Germany, France, Japan, Canada, Italy, Czech Republic, and China. Three high-level plenary presentations were given by Prof. Jianda Shao (SIOM, China), Prof. Koji Sujioka (RIKEN, Japan) and Prof. Wanguo Zheng (China Academy of Engineering Physics, China), and 16 invited talks in 10 topical areas were given by world-renown scientists and experts in the field.

This conference provided an excellent opportunity for researchers to communicate efficiently and to exchange information on new problems, solutions, and technologies in the field of laser damage as well as optical materials, and also contribute to enhancement of understanding between each other and facilitate closer collaborations among participating researchers.

The success of the first Pacific Rim Laser Damage Symposium (PLD 2011) resulted from the efforts of many people with special thanks to the members of the International Advisory Committee and the members of the Organizing Committee. We are indebted to the following organizations and companies for their efforts and financial supports to 2011 PLD: SPIE, Chinese Academy of Science (CAS), Chinese Optical Society, 863 Program, Horiba Scientific Inc., Panalytical, and Newport. We are grateful to SPIE staff the conference co-chairs, Mr. Christopher Stolz and Prof. Koji Sujioka, for their powerful support on launching this conference. We also wish to thank Honhbo He, Long Zhang, and Chaoyang Wei for their invaluable help with the organization and administration of the symposium. Finally, we would like to thank to all invited and regular speakers who contributed toward raising the level of the conference.

Jianda Shao
Koji Sugioka
Christopher J. Stolz

