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Laser-Material Interactions at Micro/Nanoscales

Edited by Yongfeng Lu, Craig B. Arnold, Costas P. Grigoropoulos, Michael Stuke and Steven M. Yalisove

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Laser-Material Interactions at Micro/Nanoscales

Symposium held April 25–29, 2011, San Francisco, California, U.S.A.

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PREFACE

This volume includes a collection of papers presented in Symposium TT: *Laser-Material Interactions at Micro/Nanoscales*, at the Spring 2011 Materials Research Society Meeting held April 2011 in San Francisco, California. Laser-material interactions are of fundamental importance in wide range of materials-related research and technology areas including green energy, photonics, electronics, environmental studies, biomedical imaging, medical treatment, and optical spectroscopy. This symposium provided an interdisciplinary forum for scientists and engineers from different fields to discuss the physical, chemical, thermal, and mechanical phenomena that occur during laser-material interactions at micro and nanoscales. Research addressing new materials, processes, structures, and surfaces synthesized by these methods for emerging fields was discussed. The symposium was well attended and received a large number of abstract submissions in the areas of ultrafast laser processing, laser ablation and deposition, process controls, nanomaterials, surface modification, laser materials interactions, polymerization, lithography, and novel approaches in laser processing.

The editors of this proceedings volume would like to express their sincere appreciation to all participants of this symposium who together helped to create an interactive environment in which to share scientific and technological developments in the field. We especially thank the invited speakers and session chairs and are particularly grateful to those contributors who provided full papers for this issue. In addition, we thank the staff at the Materials Research Society who helped to organize this conference and the symposium assistants who helped keep the sessions running on time.

Yongfeng Lu
Craig B. Arnold
Costas P. Grigoropoulos
Michael Stuke
Steven M. Yalisove

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