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978-1-107-40855-5 - Silicon Carbide 2008—Materials, Processing and Devices: Materials
Research Society Symposium Proceedings: Volume 1069

Editors: Michael Dudley, C. Mark Johnson, Adrian R. Powell and Sei-Hyung Ryu
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PREFACE

This volume contains 37 papers presented at Symposium D, “Silicon Carbide—Materials, Processing and Devices,” held March 25–27 at the 2008 MRS Spring Meeting in San Francisco, California. Silicon carbide (SiC) is a very robust semiconductor material being actively developed for high power and high temperature applications, especially in the field of power electronics and sensors for harsh environments. Symposium D was the fifth in a continuing series of symposia that covered SiC growth, defects, and devices. The symposium consisted of 17 invited papers, 37 oral presentations, and 23 poster presentations given during the three days of the symposium. The scope covers most of the current research efforts focused on the development of SiC as a viable materials system for high power device structures. This includes the development of bulk material growth processes, along with the epitaxial processes required to grow SiC on both SiC substrates and on Si substrates, and results on the latest characterization techniques used to provide insight and understanding of the processes involved. Device fabrication, processing, and characterization are also covered with the results of continued discovery and optimization of processes, leading to continually improving final device characteristics. This symposium highlighted many of the advancements that have been achieved since the 12th International Conference on Silicon Carbide and Related Materials 2007 (ICSCRM2007) held in Kyoto, Japan.

We wish to thank all of the invited speakers for their outstanding presentations. We also thank all of the contributors and participants who made this symposium successful. We gratefully acknowledge the financial support provided by Cree, Inc., SULA Technologies, and the Materials Research Society

Michael Dudley
C. Mark Johnson
Adrian R. Powell
Sei-Hyung Ryu

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