Preface

For the past few years, silicon carbide and other wide bandgap semiconductors have become a hot point in research and development of international semiconductor. To promote the development of wide bandgap semiconductors of the Asia-Pacific region, The Asia-Pacific Conference on Silicon Carbide and Related Materials (APCSCRM) has be sponsored by IAWBS (Innovation Association of Wide Bandgap Semiconductor Technology, China), IOP (Institute of physics of Chinese academy of sciences) and Beijing Ceramic Society. And the first conference (APCSCRM2018) has been held on July 9~12, 2018 in Beijing and chaired by Pr. Xiaolong CHEN (TankeBlue Semiconductor Co., Ltd., Institute of Physics, CAS, China) and Pr. Noriyuki IWAMURO (University of Tsukuba, Japan). This conference provides a prominent international forum for reporting new developments in the areas of wide bandgap semiconductors (SiC, GaN, AlN, diamond, Ga2O3, ZnO, and etc.) and their device fabrication, including advances in the bulk and epitaxial growth, material structure and property, photoelectron and electronic device. The conference was attended by 405 participants from 11 countries and was honored to be host of plenary presentations by Pr. Noriyuki IWAMURO (University of Tsukuba, Japan) on the ‘‘Recent progress of SiC MOSFET Devicese”, by Pr. Xiaolong CHEN (TankeBlue Semiconductor Co., Ltd., Institute of Physics, CAS, China) on the ‘‘Silicon Carbide as semiconductor wafers and beyond”, and by Pr. Guoyou LIU (Zhuzhou CRRC Times Electric Co.,Ltd., China) on the “The Application Prospect of SiC Devices in Rail Transit”, and by Pr. Katsuaki SUGANUMA (Osaka University, Japan) on the “Silver Sinter Joining and its Reliability for WBG Die-attach”, and by Pr. Yufeng QIU (Global Energy Internet Institute, China) on the “The Application of SiC Devices into Future Power Grid”, and by Pr. Q. Jon ZHANG (North Carolina State University, USA) on the “Current Status and Future Perspectives of Wide Bandgap Semiconductor Devices and Applications”, and by Pr. Bingbing LIU (Jilin University, China) on the “Novel Structured Carbon Materials under High Pressure”, and finally by Dr. Kimimori HAMADA (Toyota Motor Corporation, Japan) on the ‘‘The Application of SiC Power Semiconductor Devices on Electrified Vehicles”. These outstanding presentations were then followed by the three technical sessions covering SiC and Related Material Growth and Epitaxial Technology, Devices and Test Analysis Techniques, and Package Module and System Solution or Application. As many as 20 invited talks and 50 contributed presentations were given, providing a stimulating overview of the latest advances in wide bandgap semiconductors technology. One poster session featuring 31 presentations also allowed intense but friendly discussions. We wish to sincerely thank all the authors and reviewers who made possible the realization of this special issue by their contributions and involvement.

We look forward to seeing you all at the next APCSCRM Conference in 2019 in Beijing!

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