Preface

Nowadays, the wide bandgap semiconductors have been a topic of much interest spanning from fundamental research to industrial applications in power electronics, 5G telecommunications, *etc*. It is the aim of the *Asia-Pacific Conference on Silicon Carbide and Related Materials (APCSCRM)* to provide a forum to discuss the recent progresses, exchange ideas, and boost the cooperation among the researchers, graduates and entrepreneurs from across the Asia-Pacific region. Sessions are focused on the growth and characterizations of materials, the fabrication, performance and applications of devices. The topics are not limited only to silicon carbide, other wide bandgap semiconductors such as gallium nitride, aluminum nitride, boron nitride, gallium oxide, zinc oxide, diamond, *etc.* were also covered.

The APCSCRM 2019 has been held on July 17-20, 2019 in Beijing, China, which organized by Innovation Association of Wide Bandgap Semiconductor Technology (IAWBS), Semiconductor Equipment and Materials International (SEMI), the Institute of physics, Chinese Academy of Sciences (IOP, CAS) and China Crystallographic Society (CCRS), over 550 participants from 12 countries attended the conference.

The conference was chaired by Pr. Xiaolong CHEN (TankeBlue Semiconductor Co., Ltd., Institute of Physics, CAS, China), Dr. Gourab MAJUMDAR (Mitsubishi Electric Corporation, Japan), and Dr. Filippo DIGIOVANNI (ST Microelectronics, Italy), and was honored to be host of plenary presentations by Dr. Gourab MAJUMDAR (Mitsubishi Electric Corporation, Japan) on the ‘‘Impact of WBG Materials and Devices, and the Role of Asia-Pacific Conference Platform APCSCRM for Shaping It”, Pr. Osami SAKATA (School of Materials and Chemical technology, Tokyo Institute of Technology, Japan) on the ‘‘Lattice-Plane Orientation Mapping of GaN Using Synchrotron x-ray Diffraction Topography”, Lung CHU (SEMI, China) on the “New Changes in the Global Semiconductor Industry”, Dr. Filippo DIGIOVANNI (ST Microelectronics, Italy) on the “Power Wide Bandgap Semiconductor Solutions in Today’s Market Scenario”,Pr. Q. Jon ZHANG (Alpha and Omega Semiconductors, USA) on the “SiC and GaN Power Devices: Design, Commercialization and Applications”, Pr. Jianmin HAO (The 46th Research Institute of China Electronic Technology Group Corporation, China) on the “Progress in Growth, Characterization and Application of β-Ga_2O_3 Single Crystal”, Pr. Yan WANG (Tsinghua University, China) on the “Research on UHV 4H-SiC Gate Turn off Thyristor”, Pr. Teng LONG (Cambridge University, Britain) on the “Unlock the Full Potential of WBG Power Electronics”. These outstanding presentations were then followed by the four technical sessions covering SiC and Related Material Growth and Epitaxial Technology, Devices and Test Analysis Techniques, Package Module and System Solution or Application, Standard and EHS. As many as 45 invited talks and 26 contributed presentations were given, providing a stimulating overview of the latest advances in wide bandgap semiconductors technology. We wish to sincerely thank all the authors and reviewers who made possible the realization of this special issue by their contributions and involvement. The help and support of the staff at Scientific is also greatly acknowledged.

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

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