# PREFACE

This volume is the proceedings of the 9th European Conference on Silicon Carbide and Related Materials (ECSCRM 2012). The conference was held in Saint-Petersburg (Saint-Petersburg Hotel), Russia, on September 2nd — September 6th, following the successful preceding meetings in Crete, Montpellier, Kloster Banz, Linkoping, Bologna, Newcastle upon Tyne, Barcelona, and Oslo. ECSCRM is truly interdisciplinary and acts as an international forum for exchange of ideas and opinions on recent scientific and technical issues among researchers and engineers in academic, industrial and public sectors. The editions of ECSCRM have developed over the years and, today, ECSCRM is the leading European conference in the field of '*SiC and related materials and their applications*'.

The conference had more than 500 participants from 28 countries; 51% from Europe, 27% from Japan, 10% from the United States and 12% from the rest of the world, with South-Korea, China, Taiwan  and Brazil as the most prominent contributors. The scientific program committee selected 57 papers for oral presentation, 16 of which were invited (including 2 plenary talks). Above this, the conference program included 295 poster presentations, with 3 invited posters. A vibrant commercial exhibition with 37 contributors took place during the conference, and an industrial session with 15 exhibitors was held one evening.

The volume is divided into 10 chapters ranging from “Bulk growth” to “Device and application”. The reports demonstrate the technical and scientific advances in the related areas: 150 mm 4H-SiC wafers are now commercially available, a significant improvement of the carrier lifetime (up to 35 μs) for n-type SiC epi-layers has been achieved, SiC diodes have a large market share in server and telecom power applications requiring the maximum efficiency, and a variety of 1-cm$^2$, 15 kV class bipolar devices have been demonstrated, including PN Diodes, IGBTs and GTO. In general, the number of contributions devoted to application of SiC and related materials, GaN and solid solutions based on this material, and graphene is steadily increasing from one ECSCRM event to another.

ECSCRM 2012 was enabled by the labor and dedication of many people and, in particular, of the members of the Organizing, Program and Steering Committees. Also significant was the administrative work done by St. Petersburg “ Interjournalist Center”, with Inna Sosnova as the leading people and “Nitride Crystal” company, with Elena Matveeva as the leading people. I would also like to express my sincere gratitude to (i) our sponsors for their generous contributions

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enabling us to keep the registration fee at a reasonable level and offer social events, (ii) session chair persons making sure that the meeting ran according to schedule and that discussions were stimulated, and (iii) reviewers for careful reading and evaluation of the manuscripts, which ensureding that the high intellectual standard of ECSCRM was maintained.

The next ECSCRM conference will be held in Grenoble, France, chaired by Prof. Didier Chaussende and Gabriel Ferro, and I wish the organizers every success with ECSCRM 2014.

Saint-Petersburg, September, 2012

Alexander A. Lebedev

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