

## Preface

Known for its exceptional physical and electrical properties, silicon carbide has become a widely used material for applications that demand high performance, durability, and precision.

The thermal stability, electrical conductivity and mechanical strength of silicon carbide and electronic devices based on it are increasingly attracting the attention of developers in such areas as quantum and mechatronic systems, and advanced sensor technologies. The stability and reliability of the operation of the corresponding devices in conditions of high temperature and various types of radiation are also of particular importance.

Aimed at researchers and engineers, this special edition provides valuable research results into how silicon carbide is driving innovation in the creation of quantum and mechatronic systems and the development of modern sensors.