

Preface

The special edition includes articles that represented the latest research results and engineering solutions in the area of silicon carbide wafer manufacturing for power electronics, functional polymer and composite materials for various applications and special microwave absorption materials for defence from electromagnetic radiation.

The first chapter is devoted to the analysis of the properties and technological features of silicon carbide wafer fabrication for power electronics. Some technological operations such as etching, ion implantation, layer growing and polishing, etc. are evaluated here.

The next two sections represent research results on functional materials such as epoxy nanocomposite with nano silica and carbon black or nanotubes, etc. and analyse special materials for providing microwave energy absorption in case of protection of various technical systems from electromagnetic radiation.

This special edition will be interesting to semiconductor power device production specialists and many branches of applied materials science.