Preface

The development of solid-state semiconductor structures is at the forefront of technological innovation, driving advancements across various applications of microelectronics and high-power devices.

The formation and processing of solid-state structures involve a series of sophisticated and precision technologies. Doping, precipitation and annealing are fundamental processes in modifying materials to achieve the desired electrical characteristics of solid-state structures. Also relevant is the problem of the crystal damage that appears at the stage of both ion implantation and post-implantation annealing and requires damage recovery.

Key processes such as etching, ohmic contact formation, implementation of desired gate resistance in SiC MOSFET structure, etc., improve the functionality and provide integration of these components into complex circuits.

This special edition is an essential resource for engineers and researchers involved in developing and applying semiconductor technologies.