

Preface

This special edition presents the latest research results in materials engineering, including materials synthesis and processing technologies.

Mechanical properties and microstructure of structural alloys and steel, technologies of metalworking such as ultrasonic vibration assisted turning, roll casting, forging, laser treatment etc. are analysed and investigated in the first chapter.

The subject of research in the second chapter is functional ceramic and glass materials. Luminescence and dielectric properties of modern functional glass and ceramics define the wide applications of these materials in opto- and microelectronics, mechatronics and sensors.

The last two chapters contain articles devoted to the synthesis and analysis of properties of materials for pharmaceutical use and nanowires for microelectronics.

The collection will be helpful to many specialists whose activity is related to materials science, machinery, microelectronics etc.