

Preface

The presented edition includes a series of scientific and engineering research results in materials science and processing technologies for modern production and biomedical goals.

The latest and conventional polymer and composite materials, functional ceramics, nanocomposites and biopolymers are base materials for many branches of modern production, from machinery and equipment building to electronics. These materials and technologies are studied in a separate book's part. The tribology research of special metal matrix nanocomposite and high-temperature coating analysis are presented here, too.

A special part of this book is devoted to synthesising bioceramic materials, analysis of their osteoconductivity, bio- and cytocompatibility for application in tissue and bone treatment. Technologies in scaffold production and dental restoration are also discussed in this part.

Readers will find these research results useful for their activity in applied materials science and biomedical practice.