## **Preface**

This edition contains a series of scientific and engineering research results in materials science and processing technologies for modern mechanical engineering and biomedical application.

Special polymer and composite materials, ceramics, and biopolymers are analyzed and studied. The tribological properties study of the aluminium-based structural alloy, effectiveness of special ceramic coatings for tools, analysis of microbiologically influenced corrosion and study of other coatings and surface treatment technologies are presented too.

A special part of this publication is devoted to synthesising bioceramic materials, analysis of their osteoconductivity, bio- and cytocompatibility for application in tissue and bone treatment.

The edition will be helpful to specialists in applied materials science and biomedicine.