

# Preface

The presented special edition is dedicated to modern issues in materials science and technologies of materials processing and synthesis.

The first chapter contains articles on researching the specific features of welding technologies including friction stir welding, composite treatment by electrical discharge machining and minimisation of casting defects.

The second part is dedicated to the analysis of the properties of some biomaterials: biomedical alloys based on titanium, silver nanoparticles for antibacterial applications, etc.

Materials and technologies for microelectronic and photovoltaic applications and engineering solutions in the hydrogen production industry are topics of the last two chapters.

This special edition will be useful to specialists in mechanical engineering, electronics, biomedical engineering, and chemical production.