

Preface

This special edition contains a series of scientific research articles that reflect the recent status of engineering research in materials science.

Analysis of the tribological properties of high entropy alloys and strategy for predicting the formation of desirable microstructures in these alloys which can be possibly produced from recycled materials, and also assessment of some of the available characterization methods for studying the effect of heat treatment, service effect and ageing on nickel-based superalloys are the topics of the first chapter.

The next two chapters are dedicated to the investigation of the mechanical and rheological properties of polymers and composites used in additive manufacturing and the analysis of the corrosion behaviour of structural alloys and inhibitors development for their corrosion protection.

The last chapter contains examples of application methods of computational materials science for modelling and numerical investigation of materials behaviour in various technological conditions.

The presented special edition will be useful to engineers and researchers in materials science and machine building.