

Preface

This special edition is dedicated to considering a wide range of issues in the part of materials science that is related to specialised and functional materials.

Functional materials such as perovskites, a negative thermal expansion metamaterial, ceramic/metal functionally graded materials, and electrochemical properties of materials used in energy storage, fuel cells, etc. are analysed in the first two chapters.

The next two chapters are dedicated to researching of properties of materials used for sensors and analysing the tribological properties of solid lubricants and additively manufactured Al-Si alloys and steels.

The last chapter contains articles on materials wear and some procedures of defect detection research.

The presented special issue will be helpful to many specialists in electronics, mechatronics and general machinery.