

Preface

The presented special issue is focused on the latest research results in structural materials and nanomaterials that have a wide spectrum of applications in modern machinery, electronics, environmental engineering and chemical production.

The first chapter contains articles that reflect the recent level in the synthesis practice, processing technologies and analysis properties of structural alloys, starting from magnesium alloy and finishing with superalloy.

The properties and synthesis techniques of various polymer and composite materials are analysed in the second chapter.

The third chapter is dedicated to protective coatings for structural metals. The technologies of pulse-current electroplating, conventional electrodeposition and electrochemical metallisation are investigated and analysed here.

Lastly, the fourth chapter includes a series of research results on the synthesis and investigation of properties and potential areas of application for some nanomaterials and nanoparticles.

This special edition will be highly useful to a wide range of specialists involved in modern industrial production.