

Preface

The presented special edition includes articles based on research results in the essential fields of applied materials science: thin films, composite materials, and steel and alloys. The application of these materials and structures plays a crucial role in modern engineering, manufacturing, and scientific research. This publication is designed to serve as a valuable resource for students, researchers, and professionals seeking a deeper understanding of these topics.

Chapter 1: "Thin Films" delves into the science and technology of thin film materials. This chapter discusses the methods of deposition, characterisation techniques, and diverse applications of thin films.

Chapter 2, "Composite Materials", examines the practical fabrication procedures of the development, performance analysis, and emerging trends in composite technology. These materials offer unique advantages such as high strength-to-weight ratios, enhanced durability, and tailored properties for specific applications.

Chapter 3: "Steel and Alloys" is focused on the practical aspects of steel and alloy development and processing, highlighting their structural, mechanical, and thermal properties. Additionally, it discusses the latest advancements in steel and alloy applications across various industries.

We hope that this special edition will serve as a useful guide for those interested in materials science and processing technologies and stimulate further research and innovation in this field.