

Preface

The special edition offers a comprehensive overview of current research results and developments in materials science and processing technologies, with a priority on their practical applications. The content is organised into four chapters, each dedicated to a specific area in modern materials science.

The first chapter examines advances in research on metallic structural materials, including their processing and performance. Emphasis is placed on innovations that enhance mechanical properties and sustainability in engineering applications.

Chapter 2: Polymers and Composites presents research results on polymeric and composite materials, highlighting development strategies, properties' optimisation, and advanced processing techniques.

Chapter 3: Special Materials covers materials with unique properties that play a significant role in enabling new technologies and interdisciplinary solutions.

The final chapter addresses the development and application of materials for the construction sector, with a focus on sustainability, durability, safety, and innovative technologies of applications.

The presented research results provide an integrated perspective on the role of materials in modern science and engineering. We hope that this special edition will serve as a valuable resource for researchers and engineers, inspiring further exploration and practical applications of the received results.