

Preface

This special edition brings together studies that highlight the versatility of polymers and composite materials, the innovation behind functional materials, and the growing significance of sustainability in the production of building materials.

Chapter 1: Polymers and Composites explores the structure, properties, and processing of modern polymeric systems and composite materials. The studies demonstrate how strategies synthesis and reinforcement lead to lightweight, durable, and adaptable materials suitable for a broad range of industrial and engineering applications.

Chapter 2: Functional Materials presents advances in smart and multifunctional materials that enable innovation in electronics, energy systems, environmental technologies, and other fields.

Chapter 3: Sustainable Building Materials discusses materials derived from renewable resources, recycled waste, and low-energy production methods, emphasising the contribution of this approach to reducing the environmental impact of modern infrastructure.

This special edition aims to inform readers about the results of modern research in the field of creating new materials and relevant technologies, and to inspire scientists, engineers, and innovators to further exploration and collaboration.