

# Preface

This special edition contains articles that present the results of exploration and cutting-edge developments across three significant areas of material science and technology.

Chapter 1, "Photocatalysts and Catalytic Conversion", is dedicated to the innovative materials and chemical mechanisms that transform light radiation into chemical energy accelerating conversion and degradation processes in environmental remediation through photocatalysis. The collected articles highlight breakthroughs in photocatalyst development and application strategies for catalytic conversion in the production of biofuel from plastic waste.

Chapter 2, "Materials for Dye-Sensitized Solar Cells", focuses on the development and optimization of materials that underpin this promising photovoltaic technology, emphasizing their potential to provide cost-effective and sustainable solutions to global energy challenges.

Finally, Chapter 3, "Materials and Technologies of Fire Protection and Fire Resistance Providing", examines the critical role of advanced materials and engineering approaches in improving fire safety, showcasing innovations that enhance fire resistance and protective capabilities in various applications.

The special edition will be interesting to researchers and practitioners in solar energy, environmental sustainability, and fire safety.