Advanced Materials for Energy Applications and Sustainable Engineering

Preface

Welcome to the Special Issue of Advances in Materials Research (AMR) devoted to highlighting the most recent advances and research breakthroughs in the fields of materials and chemical engineering, with a particular emphasis on the outcomes of the International Conference on Frontiers of Chemicals and Materials Engineering 2026 (ICoFCHeM2026). Held on 1–2 September 2026 at the Penang Waterfront Convention Centre (PWCC), this Special Issue provides a forum for researchers to investigate the broad and quickly growing topics of materials and chemical engineering while emphasising the significant contributions of sustainable engineering to our understanding and development of these materials.

This special issue brings together researchers and experts from diverse disciplines to present their findings, share insights, and foster collaborations in the realm of materials research. Advanced materials are a diverse class of materials with distinct properties and functions that enable transformational applications in a variety of industries. Anchored by the theme "Advanced Materials for Energy Applications and Sustainable Engineering," these functional materials have revolutionised a wide range of industries, from sophisticated energy storage to catalytic and chemical applications.

We extend our deepest gratitude to the authors for their valuable research contributions and to the reviewers for their time and expertise in ensuring the rigorous quality of this Special Issue. We also sincerely thank the ICoFCHeM2026 committee members for their dedication, and we hope readers of AMR find these published manuscripts both insightful and inspiring.

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