Special Issue

Advances in Polymer Composites: Design, Multifunctionality, and Structural Health Monitoring

Message from the Guest Editors

Polymer composites, combining synthetic or natural polymer matrices with high-performance reinforcements like fibers, particles, and nanomaterials. are essential in aerospace, transportation, infrastructure, energy, biomedical, and environmental applications. Their excellent specific strength, stiffness, corrosion resistance, lightweight nature, and tailored multifunctionality make them ideal for advanced structural and functional uses. This Special Issue highlights recent advances in the design, processing, characterization, and modeling of polymer composites, focusing on multifunctionality, durability, and structural integrity under diverse conditions. We welcome contributions on novel materials, advanced manufacturing, performance enhancement, and emerging NDE and SHM techniques. Studies on computational modeling, data-driven prediction, and smart sensor integration are also encouraged.

Guest Editors

Dr. Hongye Liu

Dr. Zhenhua Tian

Prof. Dr. Zenghua Liu

Deadline for manuscript submissions

10 March 2026



an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 5.8



mdpi.com/si/251934

Journal of Composites Science Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ics@mdpi.com

mdpi.com/journal/

JCS





an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 5.8





Message from the Editor-in-Chief

Editor-in-Chief

Dr. Francesco Tornabene

Department of Innovation Engineering, University of Salento, 73100 Lecce, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Materials Science, Composites) / CiteScore - Q1 (Engineering (miscellaneous))

