Special Issue

Carbon Fiber and Its Composites: State of the Art and Perspectives

Message from the Guest Editor

Carbon fiber has been widely used in aerospace, automotive, sports equipment, and other fields due to its excellent mechanical properties and lightweight characteristics. The current research direction focuses on improving the strength, modulus, and toughness of carbon fibers, as well as developing low-cost and high-efficiency production technologies. The research on composite materials focuses on improving resin matrix, enhancing interfacial bonding strength, and developing new thermoplastic composite materials to adapt to a wider range of industrial applications. In addition, as an emerging research hotspot, the integration of structural/energy storage composite materials aims to achieve the integration of energy storage and structural functions to meet the development needs of new energy vehicles and electric aircrafts. Future research will continue to explore the multifunctionality and intelligence of carbon fiber composite materials to meet higher standards of engineering application requirements.

Guest Editor

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Deadline for manuscript submissions

closed (10 July 2025)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/213317

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