





an Open Access Journal by MDPI

Polymeric Composites Reinforced with Natural Fibers and Nanofillers

Guest Editors:

Dr. Deesy Gomes Pinto

Faculty of Exact Sciences and Engineering, Department of Civil Engineering and Geology, University of Madeira, Campus da Penteada, 9020-105 Funchal, Portugal

Dr. Virupaxi Auradi

Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur 572 103, Karnataka, India

Deadline for manuscript submissions:

closed (31 December 2022)

Message from the Guest Editors

Recent manufacturing advancements have led to the fabrication of polymeric composites reinforced with natural fibers and nanofillers. However, to reduce the impact on the environment, efforts have been made to replace synthetic fibers by natural fibers in many applications. Natural fibers can possess higher cellulose content, a higher degree of polymerization of cellulose, and a lower microfibrillar angle, which are crucial factors for the mechanical properties, namely tensile modulus and tensile strength, and many other properties that make them suitable for the reinforcement of polymeric composites. Their blend consists in epoxy resin matrices, which are thermoset polymer matrices. After curing, this material displays some excellent mechanical, thermal, electrical, and chemical properties. The Special Issue aims to focus the addition of two types of fillers (natural fibers and inorganic fillers) into epoxy resin matrices to review and highlight recent findings and trends to show future directions and opportunities for the development of nanocomposites reinforced rigid polvmer with nanoparticles and natural fibers.



