



Biodegradable Composites: Synthesis and Application

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Message from the Guest Editor

The rapid development of specialized applications of polymeric materials in various areas of technology and other aspects of life poses greater qualitative requirements. The common use of these materials implies larger and larger loads of the natural environment.

Many scientific and industrial projects focus on the use of plant-based fillers to produce completely biodegradable composites, which offer a promising alternative to global plastic problems. However, biodegradable composites frequently display poor mechanical properties and restricted processing capabilities and end-use applications. In order to overcome these drawbacks and develop advanced materials for a broad range of applications, biocomposites can be reinforced with fillers or nanofillers.

Due to their low cost and low density, ease of separation, enhanced energy recovery, biodegradability, and increasing environmental awareness, the use of natural fibers in composites has become increasingly prevalent. They are durable, light-weight, and have mechanical properties better than those of traditional materials. Therefore, in various industries, demand for natural fiber has grown.





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