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Editorial Note on Biodegradable Materials

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Editorial Note

The improvement of regular biodegradable bio-based polymers has pulled in huge and expanding logical and mechanical consideration, especially regarding satisfying the developing need for practical turn of events. Polymer materials got from characteristic polymers, for example, proteins, polysaccharides, lipids or through blend from sustainable assets are increasing expanding consideration with an end goal to supplant oil inferred polymers with macromolecules. The growing interest and focuses on the development of new biomaterials that contribute to recent findings in the field of biodegradable/ bio-based materials and their applications in terms of testing, characterization, products and applications.

Regular strands utilized as biocomposite fillers have received a lot of enthusiasm for offering prominent preferences over synthetic fibers. In addition being of minimal effort, they are environmentally friendly, sustainable and biodegradable, just as having a low thickness. Examples include althaea, artichoke, arundo, bamboo, borassus natural product, coir, curaua, ferula, jute, kenaf, oil palm and sansevieria.

In Malaysia, noted as one of the world's significant oil palm makers, there is a lot of oil palm biomass coming about because of the processing cycle. The palm mesocarp fiber which is a lignocellulose fiber is an inexhaustible material and is acquired effortlessly straightforwardly from the oil palm plant measure. It is generally scorched as an evaporator fuel to produce steam and power for the palm oil factory.

The feed material for different uses, and have effectively exacerbated it with thermoplastics of poly(lactic corrosive) (PLA), poly(butylene succinate) (PBS) or PLA/poly(caprolactone) mix to deliver biodegradable biocomposites. This sort of biocomposite offers the benefits of being light weight, ease. biodegradable, and shows sensible quality and solidness. The method detailed depends on utilizing superheated steam as a financially savvy and green preparing strategy intended to alter the oil palm mesocarp fiber (OPMF) and to advance the attachment between the fiber and thermoplastic. Under controlled working conditions, biocomposites from superheated steam treated OPMFs and poly(butylene succinate) and PBS at different weight proportions were readied utilizing a liquefy mixing procedure. The mechanical properties and dimensional strength of the biocomposites were assessed. The examination uncovered that the superheated steam expanded the harshness of the fiber surface by the expulsion of surface polluting influences and hemicellulose. The pliable, flexural and sway properties, just as dimensional strength of the biocomposites were notably upgraded by the presence of treated OPMF. Checking electron microscopy was utilized to show the improvement of interfacial attachment among PBS and superheated steam (SHS)- treated OPMF for which the work presumed that superheated steam might be utilized as an eco-accommodating and practical handling technique for adjustment of OPMF in biocomposite creation.

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