

Название публикации:

Biodegradation of natural reinforcing fillers for polymer composites

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Аннотация:

Twelve different natural raw materials were selected as possible fillers for eco-friendly biocomposites. The target was to find the most biodegradable ones. Two mycological tests were held: in the aqueous and agar media. It was found that two tests showed different results. In aqueous media, the fillers with a high content of water-soluble and easy-hydrolysed compounds demonstrated the most intensive biofouling. In agar media, the entire filler was exposed to biodigestion by fungi. Therefore, multi-compound fillers with a set of different macro- and microelements were more biodegradable than others.

Ключевые слова:

Algae, Biodegradable polymers, Biodegradation, Composite materials, Polysaccharides, Aqueous media, Bio-composites Eco-friendly, High-content, Microelements, Polymer composite, Reinforcing fillers, Watersoluble, Fillers