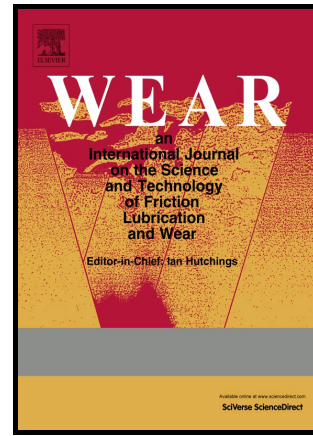


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Dry Sliding Wear Behavior of Untreated and Treated Sugar Palm Fiber Filled Phenolic Composites using Factorial Technique

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Abstract

The purpose of the current work was to investigate, for the first time, the potential improvements in the wear resistance of phenolic matrix composites from using sugar palm fiber (SPF) as a reinforcement. Consequently, open a new approach for utilizing the available locally cheap and non-toxic fibres to produce a prospective candidate tribo-materials for friction application, such as brake pad composites. The fibers were treated with seawater for 30 days and with a 0.5% alkaline solution to improve the fiber-matrix adhesion. Thereafter, the fibers were used in particle form with a volume loading of 30% to fabricate the samples using a hot press machine.

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