Review of: "Investigation of Mechanical Properties of Sisal Fiber and Sugar Palm Fiber Reinforced Hybrid Composites"

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Potential competing interests: No potential competing interests to declare.

The paper “Investigation of Mechanical Properties of Sisal Fiber and Sugar Palm Fiber Reinforced Hybrid Composites,” by H. Hariharan and G. Rajeshkumar, is interesting for the research field of polymer matrix composites prepared with natural fibres. There are many papers related to these materials from more than 20 years, but the development of new materials is always of high interest. The paper could be published, but not in the present form. There are many questions and changes that need to be made before accepting the article.

1.- CG and KG on pages 2 and 3 must be defined before.

2.- On page 5, SPF is defined, but from pages 5 to 13, the term sugar palm fiber is continued. All the times SPF will be used.

3.- On page 7, it is written “…treated with a NaOH solution of 20% concentration. The fibers were treated with the NaOH solution for 3 hrs, and they were allowed to dry at room temperature for 8 hrs.” It can be written as: “… treated with a NaOH solution of 20% concentration for 3h and then allowed to dry at room temperature for 8 hrs.”

4.- Page 7. It is indicated that “NaOH treatment increases the strength of the fibers.” This conclusion must be corroborated by experimental data or by references.

5.- On page 8 and other pages: Why is sample 3 in the third position? Samples 1, 2, and 3 can be organized by the increase in both % Sisal and % SPG. And the mechanical properties must be organized in a similar way.

6.- On page 10, it is written “After 24, the …” It is supposed that it must be “h” (hours).

7.- Most of the text found in the Results and Discussion Section (when each section begins) must be moved to the Experimental Section. The description of the mechanical tests must be written in the Experimental Section.

8.- Page 11. MR must be defined before.

9.- The main question of the paper is why the sample 3 (15%Sisal-15%SPF) has the best mechanical properties. Is it due to the length of the fibres? Diameter size? Process? Densities? Etc. This must be corroborated by different techniques (scanning electron microscopy, density, etc.).