



DEVELOPMENT OF SPONGE FIBER AND PARTICULATE PALM KERNEL SHELL ASH REINFORCED POLYPROPYLENE HYBRID COMPOSITES

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Abstract:

This work focused on the development of hybrid composites by impregnating polypropylene (PP) with vegetable sponge fiber (*Luffacylindrica*) and palm kernel shell ash. The sponge fiber was chopped to 10 mm and some were treated with alkali solutions to reduce its water affinity and enhance its surface roughness. Palm kernel shell ash of 425 μm particle sizes was used to form the hybrid. Varying weight percentage of both reinforcements were dispersed randomly in polypropylene and the mixture was heated in a compression moulding machine. Thereafter, the composites mechanical and physical properties were tested. The results revealed that hybrid fiber reinforced polymer composites has excellent flexural and tensile strengths as well as water resistance properties. Hence, the developed composites can be considered suitable for ceiling application.

Biography:

Associate Professor, Metallurgical and Materials Engineering Department, Federal University I.O. Oladele, A.D. Akinwekomi, O.G. Agbabiaka, M.O. Oladejo Influence of on the tensile and wear resistance properties of bio-derived CaCO_3 /epoxy composites O. Obiukwu, I. Opara, H. Udeani Study on the mechanical properties of palm .

Publication of speakers:

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Citation: Oladele I. O; DEVELOPMENT OF SPONGE FIBER AND PARTICULATE PALM KERNEL SHELL ASH REINFORCED POLYPROPYLENE HYBRID COMPOSITES; Biopolymer 2020, July 20, 2020; Paris, France.