THE EXTRACTION AND COMPOSITE FABRICATION OF LUFFA FIBRES

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ABSTRACT

THE EXTRACTION AND COMPOSITE FABRICATION OF LUFFA FIBRES

This study was to extract the fibres from luffa fruit which speciesselected was *Luffa cylindrica* because they are abundantly cultivated and easy to find. Luffa fibres can be an alternative resources for cellulosic natural fibres such as cotton, wool, hemp, jute, sisal and coir because of its excellent properties and characteristics. Luffa fibres were pretreated for fibres extraction using sodium hydroxide and hydrogen peroxide. This process modified the morphological structure of fibres that improved the mechanical properties and the hydrophilic ability. Poly/luffa composite was prepared using hand laying method and analysis based on the physical composite tensile strength, flexural strength, impact strength and fibre weight ratio indicate that these properties enhanced by the pretreatment process and multi-dimensional structure of the fibres.