CHARACTERIZATION OF EPOXY MATRIX REINFORCED WITH BANANA FIBERS THERMAL PROPERTIES BY PHOTOACOUSTIC TECHNIQUE

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Resumo:
Synthetic fibers are being replaced gradually by natural materials such as lignocellulosic fibers. Compared to synthetic fibers, natural fibers have shown advantages in technical aspects such as environmental and economic. So there is a growing international interest in the use of those fibers. The banana fiber presents significant properties to be studied, but until now few thermal properties on banana fiber as reinforcement of epoxy matrix were performed. The present work had as its objective to investigate, by photoacoustic spectroscopy and photothermal techniques the thermal properties of diffusivity, specific heat capacity and conductivity for epoxy composites reinforced with banana fibers. In the epoxy matrix will be added up to 30% in volume of continuous and aligned banana fibers. Keywords: Epoxy composites, natural fiber, thermal diffusivity.