



Madera plástica con paja de trigo y matriz polimérica [

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text (article)

Analítica

The objective of the research was to develop plastic timber with wheat straw and polymer matrix. In the Mexicali Valley in Baja California, Mexico, the agricultural activities and the maquiladora industry are the main source of income in the region. However, agricultural activities generate wastes that contribute heavily to pollution of Mexicali and its valley. The burning of agricultural waste is a traditional practice in the Valley, and is done in order to prepare the soil for the next crop; it consist in open burning of crop residues from crops like wheat straw, corn, safflower and barley. In this project we used the residue of wheat straw as reinforcement in a polymer matrix epoxy resin to produce a composite material and get a plastic wood. The results show that the wooden plate with wheat straw and plastic polymer matrix has mechanical properties such as hardness, flexure, moisture absorption, and density comparable to common pine wood alder, used in Mexicali region. Finally, the material obtained shows that it is possible to find substitutes for wood and show an alternative use for wheat straw and thus contribute to the reduction of pollution. The results of the mechanical properties made to conclude that these composite materials can be used in the construction industry or wood substitute such as compressed sawdust or petatillo

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