

Study of Biocomposites Based of Poly(Lactic Acid) and Olive Husk Flour

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Abstract : In this work, the composites were prepared with poly(lactic acid) (PLA) and olive husk flour (OHF) with different percentages (10, 20 and 30%) using extrusion method followed by injection molding. The morphological, mechanical properties and thermal behavior of composites were investigated. Tensile strength and elongation at break of composites showed a decreasing trend with increasing fiber content. On the other hand, Young modulus and storage modulus were increased. The addition of OHF resulted in a decrease in thermal stability of composites. The presence of OHF led to an increase in percentage of crystallinity (Xc) of PLA matrix.

Keywords : biopolymers, composites, mechanical properties, poly(lactic acid)

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