Developing new methods for biodiesel production by using Sugarcane

E. Mahmoodi[1], A. Mohammadi[1*], H. Tavakoli[1], A. Akram[2] and M. Tavakoli[3]
1. M. Sc. Student, Department of Agricultural Machinery, University of Tehran
2. Associated Professor, Department of Agricultural Machinery, University of Tehran
3. M. Sc. Student, Department of Food Science and Technology, University of Tarbiat Modarres

Termination of fossil fuels is a reason for substituting these resources of energy by the human, among this, biofuel is a case that researchers take a great attention to it currently. Biofuel is a source of energy that can be achieved from bagass waste recovery. Bagass is the woody residue of sugarcane which is discarded in large amount as waste material in sugar production process. Therefore recovery of bagass as usable energy can have great capital. At the current study the most important method of synthesis of bagass to biodiesel, rapid thermolysis (or pyrolysis), has been investigated. Thermolysis is a chemical process that a substrate such as bagass at high temperature is decomposed to solid incomplete burn, liquid, vapor and suspended materials. This process takes place in biotherm vessel that is based on the boiling fluid. Results of this research showed that the recovered product of bagass and produced biodiesel is a fuel with very low pollution, and can be used as an energy source for power plants and stationary diesel engine as well as an economical fuel and also can be replaced for fossil fuel sources by their termination. The results of this study are beneficial for sugar cane industries and researchers and scientific can be used energy recovery.

Keywords: Bagass Recovery, Energy recovery, Biofuel, Biodiesel, Thermolysis, Biotherm

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* Corresponding author   Email: mohammadi _017@yahoo.com