

Performance Evaluation of Waste Vegetable Cooking Oil as Biodiesel.

Ogur, E. O.¹, Mbatia, B. N.²

¹Department of Mechanical and Mechatronic Engineering, ²Department of Biochemistry and Biotechnology, Technical University of Kenya

Abstract

This work involved the production of biodiesel from waste vegetable cooking oil and testing for the engine torque, brake power and specific fuel consumption of a conventional diesel engine utilizing the produced biodiesel from the waste vegetable cooking oil. The results obtained were compared with those for petro-diesel fuel. The results showed that the value of brake power for petro-diesel was closely matched with that of biodiesel. Similarly the value for engine torque for petro-diesel was higher than that of biodiesel, due to the oxygen content in biodiesel. The average value obtained for the specific fuel consumption for biodiesel was higher than that of petro-diesel. Results obtained in this study showed that biodiesel obtained from waste vegetable oil had properties close to petrol-diesel.

Keywords: Waste vegetable cooking oil; biodiesel; Tran's esterification; glycerol.

International Journal of Recent Development in Engineering and Technology. Vol. 3 pp, 1 – 4. (2014).

See more at: http://www.ijrdet.com/files/Volume3Issue3/IJRDET_0914_01.pdf