Abstract for Poster Presentation

AN EFFICIENT BIOMASS-DERIVED HETEROGENEOUS BASE CATALYST FOR TRANSESTERIFICATION OF VEGETABLE OILS TO BIODIESEL

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A heterogeneous base catalyst has been derived from the banana plant variety, *Musa balbisiana* Colla. and its catalytic activity evaluated for the transesterification reaction of vegetable oils with methanol. The reaction was carried out under ambient, thermal as well as microwave irradiation conditions. The yields of the corresponding fatty acid methyl esters were more than 95% under all the three experimental conditions. The optimum catalyst loading was 20% by weight of the oil and the reaction time varied from 3 minutes under MW irradiation to 3 hours at ambient temperature. The catalyst is recyclable and could be reused for up to 4 runs without significant loss of activity.



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