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Water hyacinth ash: An ecofriendly heterogeneous reusable catalyst for the transesterification of soybean oil to biodiesel

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Abstract : The catalytic activity of water hyacinth ash (WHA) has been evaluated for the transesterification reaction of soybean oil with methanol. The reaction was carried out under ambient temperature as well as reflux conditions. The yields of the corresponding fatty acid methyl esters were 95% under both experimental conditions. The catalyst loading was 20% by weight of the oil and the reaction time varied from 30 minutes under reflux condition to 2.5hours at ambient temperature. The catalyst is recyclable and could be reused for up-to 4 runs with marginal loss in catalytic activity.

Keywords : Water Hyacinth, Meteka, Biodiesel, ecofriendly, heterogeneous, transesterification.

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