

Catalytic Depolymerisation of Waste Plastic Material into Hydrocarbon Liquid

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Abstract : In recent years, the improper disposal of waste polymeric materials like plastics, rubber, liquid containers, daily household materials, etc. is posing a grave problem by polluting the environment. On the other hand fluctuations in the oil market and limited stocks of fossil fuels have diverted the interest of researchers to study the production of fuels and hydrocarbons from alternative sources. Hence, to study the production of fuels from waste plastic is the need of hour at present. Effect of alkali solutions of different concentrations with copper comprising catalyst on depolymerisation reactions was studied here. The present study may become a preliminary method for obtaining valuable hydrocarbons from waste plastics and an effective way for depolymerising or degrading waste plastics for their safe disposal without causing any environmental problems.

Keywords : catalyst, depolymerisation, disposal, hydrocarbon liquids, waste plastic

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