

Catalytic degradation of extended polystyrene waste over mordenite and modified mordenites

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The amount of waste plastic discarded each year is constantly increasing and is causing serious pollution problems. Among the different solid acids, zeolite HZSM-5 due to the presence of strong acid sites on its surface possesses potential to disrupt C-C bonds in the waste plastics and can hydrogenate olefins, yielded by the degradation, into paraffins. Mordenite is a wide pore zeolite. It has proved to be a potential catalyst in hydrocarbon processing. However, its use in the modified form is not much reported for polystyrene degradation. In the present work, we have compared the utility of mordenite and its modified forms for title reaction.