

Useful liquid products from the pyrolysis of mixed plastics. Siddiqui, Mohammad Nahid; Redhwi, Halim Hamid. Chemistry, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry (2007), 52(2), 761-762. Publisher: American Chemical Society, Division of Fuel Chemistry, CODEN: PSADFZ ISSN: 1521-4648. Journal; Computer Optical Disk written in English. CAN 148:127080 AN 2007:834506 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

A processing methodol. is developed for the direct liquefaction of actual post-consumer waste plastics into useful petrochem. liq. products. The work extends tertiary recycling investigations to include thermal and catalytic degrdn. of mixed plastic waste, and the effect of polymer mixt. and pyrolysis conditions on the compn. of products. The thermal and catalytic coprocessing of waste plastics with PS is a feasible process by which waste plastics and waste PS can be converted into liq. fuels or chem. feedstocks. The ratio of PS with other plastics strongly affected the conversion process and the prodn. of hexane sol. material. The coprocessing reaction depends on the nature and compatibility of plastics with PS.