Petrochemistry-2013
World Congress on
Petrochemistry and Chemical Engineering
November 18-20, 2013 Hilton San Antonio Airport, USA

Activation of waste glass powder for the degradation of waste polyolefins

Pooja Singh

Central University of Himachal Pradesh, Dharamshala, India

Abstract

The present study proposed a method for the activation of waste glass powder for making it useful for the degradation of polyolefins. In this work degradation of polyolefins, namely polypropylene and polyethylene has been achieved in the presence of activated waste glass (AWG) powder in varying ratios. AWG was obtained in two steps (*i*) grinding waste glass to specific mesh size range in between 200-300 by using pulverizer unit and then (*ii*) the resultant powder was chemically treated by ammonium fluoride reagent and finally calcined at 600^0C. The activation was characterized using XRD, SEM study of AWG and GC-MS study of degraded products. The resultant activated material can be used for the degradation of waste polyolefin.