

Weather-induced degradation of LLDPE: calorimetric analysis. Hamid, S. H.; Qureshi, F. S.; Amin, M. B.; Maadhah, A. G. Res. Inst., King Faud Univ. Pet. Miner., Dhahran, Saudi Arabia. Polymer-Plastics Technology and Engineering (1989), 28(5-6), 475-92. CODEN: PPTTE7 ISSN: 0360-2559. Journal written in English. CAN 111:233830 AN 1989:633830 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

A DSC study of the changes that occurred in the linear-low.-d. polyethylene Ladene FH10018 during 12 in Dhahran, Saudi Arabia showed that morphol. greatly affected the shape and position of the melting peak. The melting peaks of unexposed and weathered samples had a similar shape, implying a similar melting behavior of the crystallites. The max. of the endothermic melting peak did not shift much during weathering. The area under the melting endotherm increased with exposure, indicating an increase in the cryst. content of the samples. The apparent increase in crystallinity during weathering was attributed to the formation of functional groups in the amorphous regions, chain breaking, and crosslinking.