Chemical composition and performance related properties of polymer modified Arab asphalts. Ali, Mohammad Farhat; Siddiqui, Mohammad Nahid. Department of Chemistry, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia. Preprints - American Chemical Society, Division of Petroleum Chemistry (1999), 44(3), 358-362. Publisher: American Chemical Society, Division of Petroleum Chemistry, CODEN: ACPCAT ISSN: 0569-3799. Journal written in English. CAN 131:247203 AN 1999:578530 CAPLUS

Abstract

The three polymer types studied (e.g., linear low-d. polyethylene, styrene-butadiene-styrene block copolymer, and polypropylene) had different influences which decreased or increased the performance-related properties of asphalt binders. Because of aging and polymer modification, an increase in the amt. of larger mol.-size fraction was obsd., leading to a softening point increase of the asphalts, and a decrease in penetration. The change in the mol. size distribution seems to be the reason behind the change in the phys. properties of the asphalt.