STUDY OF POLY ETHYLENE ACRYLIC ACID DERIVATIVES AS POUR POINT DEPRESSANTS OF WAXY CRUDE OILS

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ABSTRACT

This study aims to prepare some compounds based on PEAA co-polymer. PEAA was reacted with alcohols and amines then grafted with vinyl acetate in the presence of PTSA as catalyst and xylene as solvent to produce graft co-polymers[1-3]. The influence of PEAA graft co-polymer (PEAA- g-VA), as flow improver, on the viscosity and pour point of some Egyptian waxy crude oils was study. The produced purified and characterized by FTIR and ^{1}HNMR. The rheological behaviors were measured at different concentration (from 1000 to 3000 ppm) and temperatures below and equal the pour point temperature. The copolymer leads to a large reduction in the pour point of samples of Khalda Petroleum Co. (KhPC) crude oils. These reductions of pour point temperature were depending on the composition and location of crude oil[4,5]. Thus establishing the large efficiency of the products synthesized in this work.

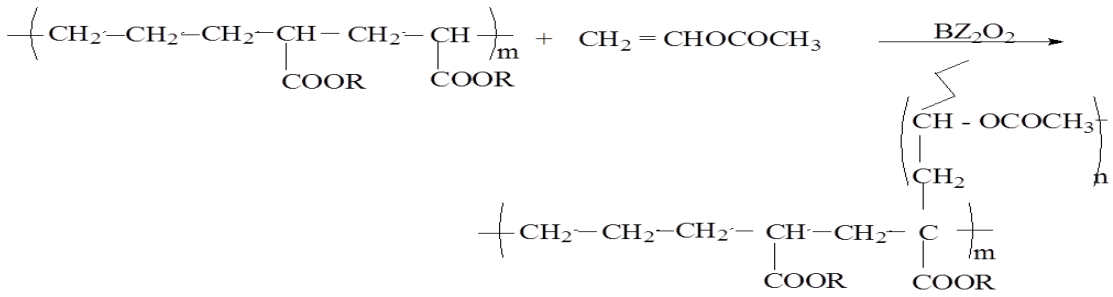

Figure 1: Scheme of Grafting of Vinyl Acetate (VA) on Poly Ethylene Acrylic Acid (PEAA) Co-polymers

References

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