

Synthesis and characterization of some acrylic monomer/sulfur dioxide copolymers.
Tsonis, Christos P.; Ali, S. Asrof; Wazeer, Mohammed I. M.; Abdennabi, Abdul M.. Chem. Dep., King Fahd Univ. Pet. Miner., Dhahran, Saudi Arabia. Makromolekulare Chemie (1992), 193(9), 2175-87. CODEN: MACEAK ISSN: 0025-116X. Journal written in English. CAN 117:192456 AN 1992:592456 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

The copolymn. of either acrolein (I), Me acrylate (II), acrylamide (III), or acrylonitrile (IV) with liq. SO₂ at low temp. and high diln. in the presence of tert-BuOOH gives high SO₂ incorporation into the resulting copolymers. Anal. of the compn. of these polysulfones, by elemental analyses and ¹³C NMR, shows that they consist mostly of triad monomer sequences. TGA of selected samples demonstrates that their thermal stability, at ≤30% wt. loss, increases for different acrylic comonomers as follows: I < III < II < IV. Preliminary flammability tests reveal that flame retardancy increases with increasing SO₂ content in the copolymer.