

Synthesis and solution properties of a new poly(electrolyte-zwitterion)

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ABSTRACT

A novel electrolytic-zwitterionic (EZ) monomer, sodium N-(3-sulfopropyl)-3-(N,N-diallylamino)propanesulfonate, on homopolymn. in aq. soln. using tert-butylhydroperoxide, afforded the poly(electrolyte-zwitterions) (PEZ). The copolymer of the above monomer and sulfur dioxide was also synthesized in excellent yield. The EZ monomer as well as the PEZs contains structural features common to both polyzwitterions and conventional polyelectrolytes. The soln. properties of these polymers were studied in detail. The PEZ, as the name implies, possess dual type of structural character and it is the electrolytic portion of the structure that dictates the soly. and viscosity behavior of the polymers.