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RADICAL COPOLYMERIZATION SYSTEM OF MONOMERS ACRYLONITRILE/STYRENE IN EMULSION MEDIUM

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Abstract : This study examines the radical copolymerization in emulsion of the monomer system acrylonitrile/styrene. These copolymers are of great interest to the plastics industry, because they combine the good mechanical properties and implementation provided by the styrene units in the very high solvent resistance and extreme gas impermeability provided by the acrylonitrile units. The properties of a copolymer are directly related to its composition and distribution of monomer units in its macromolecular chains. Based on the reports of the couple reactivity's of monomers (AN/S) found in the literature, the objective of the work is to provide theoretical simulation (by analytical and numerical integration of the equation of copolymerization): The kinetics of the reaction copolymerization of AN / S in emulsion medium (drift composition, azeotropic) and the microstructure (distribution of monomer sequences) and the glass transition property of the macromolecular chains instant formed throughout the copolymerization reaction

Keywords : copolymerization, microstructure, acrylonitrile, styrene, glass transition, emulsion