

Surface and Interfacial Activities of Hydrophobically-Modified Polyvinyl Alcohol (PVA)

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ABSTRACT

In the present study, the air-liq. surface and liq.-liq. interfacial activities of hydrophobically modified (with urea followed by fatty acid chlorides) PVA solns. were investigated to det. the effects of NaCl concn., polymer concn., time, polymer mol. wt., polymer modification and the av. length of the hydrophobic side groups. The hydrophobically modified PVA exhibits high air-liq. surface and liq.-liq. interfacial activities which increase with increasing NaCl concn., polymer concn., mol. wt. and av. length of the hydrophobic side groups. The obsd. strong dependence of surface and interfacial activities on salt concn. for this non-polyelectrolyte polymer is explained in terms of the reduced polymer soly. or salting out with increasing salinity.