

Influence of hydrophobe content on phase coexistence curves of aqueous two-phase solutions of associative polyacrylamide copolymers and poly(ethylene glycol).

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Journal of Applied Polymer Science (2003), 89(5), 1351-1355.

Abstract

The influence of hydrophobe content and type on the phase coexistence curves of aq. two-phase polymer systems contg. poly(ethylene glycol) and associative polyacrylamide copolymers has been investigated. The top phase was poly(ethylene glycol)-rich while the bottom phase was rich in the copolymer. Increased intramol. assocn. resulting from increased hydrophobe content was found to increase compatibility of the two polymers in the bottom phase. Large size asymmetry was found to be an important factor in detg. the binodal curve.