

Introduction of various quaternary ammonium salts as cationic binding sites in partially-hydrolyzed poly(ethylene-co-vinyl acetate) films

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ABSTRACT

Various quaternary ammonium salts as cationic binding sites were introduced to pseudo-bilayer membranes based on partially hydrolyzed poly(ethylene-co-vinyl acetate) (EVA). Three types of quaternary ammonium salts such as bolaform electrolytes, gemini surfactants, and conventional surfactants were used in this study. Gemini surfactants were uptaken more in the membranes than bolaform electrolytes because of the amphiphilicity. The surfactants were dispersed and acted as a binding site for anionic dye in the hydrolyzed membrane under the optimal conditions.

Keywords: Poly(ethylene-co-vinyl acetate); Pseudo-bilayer membrane; Bolaform electrolyte; Gemini surfactant; Acid dye; Ionic complexes

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