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Effect of Polymer Additives on the Stability of O/W

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Different types of polymers were added to ethyl oleate-in-water emulsions and the stability of the emulsions was followed by a turbidimetric technique. Additives such as pullulan and dextran at 1% (w/v) destabilized the emulsion. The stability of the emulsions on pullulan concentration was examined. When the pullulan concentrations were lower than 0.5% (w/v) and higher than 8.5%, the stability was almost 0%. At the concentrations of 1 to 7%, the emulsions were destabilized. The destabilization phenomena are discussed based on a model in which the depletion of pullulan into a model derived from a balance of forces working on a coalescence.

Keywords: [O/W emulsions](#), [depletion effect](#), [neutral polymer](#)

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