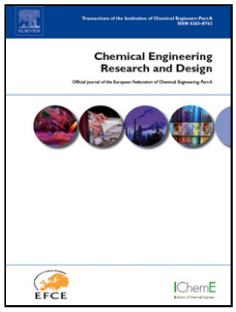

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Experimental investigation of oil-in-water microfiltration assisted by Dielectrophoresis: Operational condition optimization

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Highlights

- Fouling have negative effects on the performance of oil/water microfiltration.
- Induction of electric field can generate Dielectrophoresis.
- Dielectrophoresis limits oil deposition on the membrane surface.
- By induction of electric field, permeate flux and purity increase.
- Operational parameter effects are studied in oil/water electro-microfiltration.

Abstract

Membrane filtration is an efficient method in treating oily waste water containing fine oil droplets. However rapid fouling of membrane and decay in process performance has resulted in