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Separation science and engineering

Membrane materials in the pervaporation separation of aromatic/aliphatic hydrocarbon mixtures—A review☆

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Abstract: The separation of aromatic/aliphatic hydrocarbon mixtures is significant process in chemical industry, but challenged in some cases. Compared with conventional separation technologies, pervaporation is quite promising in terms of its economical, energy-saving, and eco-friendly advantages. However, this technique has not been used in industry for separating aromatic/aliphatic mixtures yet. One of the main reasons is that the separation performance of existed pervaporation membranes is unsatisfactory. Membrane material is an important factor that affects the separation performance. This review provides an overview on the advances in studying membrane materials for the pervaporation separation of aromatic/aliphatic mixtures

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