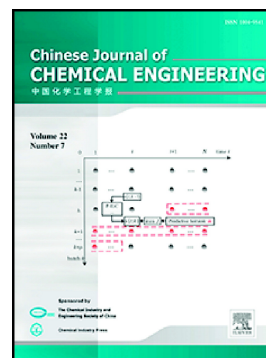


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Separation Science and Engineering

Osmotic concentration of succinic acid by forward osmosis: Influence of feed solution pH and evaluation of seawater as draw solution

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ABSTRACT

In this study, we investigated the essential role of feed solution pH so as to gain insights into the transport mechanisms of succinic acid concentration by osmotically-driven forward osmosis (FO) process. FO performances including water flux and bidirectional transport of succinate and chloride anions were systematically examined using cellulose triacetate-based FO membrane. Additionally, real seawater was explored as draw solution. Experimental results revealed that the pH-dependent speciation of succinic acid can affect the FO performances.

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