

عنوان مقاله:

Evaluation of polymer inclusion membrane containing D2EHPA and Cyanex272 for transport of Europium

محل انتشار:

سومین کنفرانس بین المللی دستاوردهای نوین پژوهشی در شیمی و مهندسی شیمی (سال: 1395)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

A Polyvinyl chloride (PVC)-based polymer inclusion membrane (PIM) containing mixture of D2EHPA and Cyanex272 as the extractant and POE as the plasticizer shows potential for the transport of Europium from nitrate media. The synergistic effect of these extractants intensified Eu transport through PIM. The effects of extractant and plasticizer concentration in the membrane, feed phase pH, stripping agent concentration, and membrane thickness were investigated. Up to 96% of Eu was extracted using a PIM consisting of 35.16 wt.% (D2EHPA+Cyanex272), 18.52 wt.% POE and 46.31 wt.% PVC. An almost complete back-extraction of the Eu extracted from this membrane was achieved using 1M HNO₃ as stripping phase

کلمات کلیدی:

polymer inclusion membrane, Cyanex272, D2EHPA, Europium, synergistic effect

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/530643>

