

## Transport of americium(III) across SLM containing CMPO as the carrier extractant

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### ABSTRACT

The transport behaviour of Am<sup>3+</sup> was investigated from nitric acid as well as from aqueous nitrate media under neutral pH conditions across PTFE flatsheet supports (0.45 micron) containing octyl,phenyl-N,N-di-*iso*-butyl carbamoylmethyl phosphine oxide (CMPO) as the carrier extractant. The effect of CMPO concentration and presence of tri-*n*-butyl phosphate (TBP) as phase modifier was studied. The results showed strong influence of hydrogen ion on Am(III) transport which was more pronounced in the presence of TBP. Acid transport data along with permeability coefficients for Am(III) transport are also presented.

*Keywords:* CMPO; Americium; Liquid membrane; Transport

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