

## Boron removal by Donnan dialysis

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### ABSTRACT

The mechanism of the diffusive boron transfer through anion exchange AMX (Neosepta) membrane was evaluated by multiple regression methods. It was found that Donnan dialysis ( $\text{OH}^-$ - $\text{B}(\text{OH})_4^-$  exchange) phenomena dominates over simple boric acid diffusion dialysis. Thus to enhance boron fluxes as well as its removal efficiency the process should be carried at as high as possible receiving solution pH while the feed solution pH should be maintained low.

*Keywords:* Boron removal; Ion-exchange membrane; Donnan dialysis

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