Short Communication

Electrodialysis of Ammonium Nitrate Solution in Intensive Current Regimes

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Electrodialysis of ammonium nitrate solution with the use of different membrane pairs MK-40/MA-41, MK-41/MA-41 by UCC Szhchekinoazot (Russia), Ralex CM(H)-PP / Ralex AM(H)-PP by Mega a.s. (Czech Republic) was carried out. It was demonstrated that the highest degree of desalination can be achieved with the use of the membranes Ralex CM(H)-PP / Ralex AM(H)-PP in electrodialysis cell. A membrane pair (MK-41/MA-41) was established, whose application will allow conducting a reagent-free acidification of solutions in the concentration compartment in order to prevent the precipitate formation on the surface of the anion exchange membranes in the desalination compartment.

Keywords: electrodialysis, ammonium nitrate, precipitate formation, cation exchange membranes, anion exchange membranes, current-voltage characteristic of ion exchange membranes.

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