Radiation Effects on Polymers - XIII. The Application of Cellulose Acetate-g-Polyacrylamide Membranes in the Process of Water Desalination by Reverse Osmosis

Using computerized programs, the water flux and salt rejection properties in reverse osmosis of cellulose acetate-g-acrylamide membranes are determined. Comparisons are made with ungrafted commercial cellulose acetate membranes, using 0.1 and 1.0 M sodium chloride, sodium sulphate and ammonium sulphate solutions. The grafted cellulose acetates show improved water flux but reduced NaCl rejection. However, they show promising prospects in bigger ion separation as for Na2SO4 and (NH4)2SO4 solutions.

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