

عنوان مقاله:

BENZENE REMOVAL FROM DILUTE AQUEOUS SOLUTION BY PTFE MEMBRANE VIA MEMBRANE DISTILLATION

محل انتشار:

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خلاصه مقاله:

In this work, an air gap membrane distillation (AGMD) process was applied for the separation of water-benzene binary solution. The commercial hydrophobic polytetrafluoroethylene (PTFE) membrane of pore size 0.45µm and porosity 85% were used. The effect of feed temperature, feed concentration and coolant temperature, on AGMD permeate flux and removal efficiency were studied. The rising of the feed temperature causes an approximately liner growth in both of the permeate flux and removal efficiency. Varying of feed concentration has no impressive effect on the flux and removal efficiency. Increasing the coolant temperature decreases temperature gradient as driving force and causes a reduction in both of the flux and removal efficiency

کلمات کلیدی: Membrane distillation, Air gap membrane distillation, Benzene removal, Water treatment

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