

薄膜方位對掃流超過濾之影響

In this study, the flux behavior in a flat-membrane cross-flow ultrafiltration system was investigated. The tested aqueous solutions in the experiments were Dextran T500. The operating parameters included liquid velocity, gas velocity and inclination angles of the membrane. The gas-liquid two-phase ultrafiltration system was also investigated. Increasing the cross-flow velocity will enhance the permeate flux and decrease the time required for reaching steady state. Under low liquid flow rates, the filtrate resistance is maximum at 0° inclination and get minimum at 180° inclination. The effect of inclination on the flux is insignificant when operating at the high liquid flow rate. Under high liquid flow rates, the introduction of gas will further enhance the permeate flux when the membrane is at 180° inclination.