

Effect of operating parameters on performance of ultrafiltration (UF) to fractionate Catfish protein hydrolysate

ABSTRACT

The effect of pH, ionic strength and feed concentration on performance of ultrafiltration (UF) to fractionate Catfish protein hydrolysate (CFPH) through 5kDa regenerated cellulose (RC) membrane was studied. The highest and lowest permeate flux belonged respectively to pH 9 and isoelectric point (IEP) with flux reduction of 5.75 L/m².h at pH 9 and 10.98 L/m².h at pH isoelectric through operating time. Further, by adding the salt, the highest permeate flux and transmission obtained at highest ionic strength of 0.15 M NaCl with 52.96% of transmission (in average). Then, the transmission reached to 54.18% by increasing feed concentration up to 1.5 mg/ml.

Keyword: pH; Ionic strength and feed concentration; Ultrafiltration (UF); Fish protein hydrolysate