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Treatment and Recycling of Wastewater by Submerged Hollow Fiber Membrane

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ABSTRACT

In this study, the effects of experimental conditions including the MBR equipped novel device and different operating modes on permeate flux were studied. The results show that the MBR equipped novel device can reduce the resistance and enhance the flux, decreasing the total resistance (R_t = 9.649) to 5.962 and increasing the permeate flux to 15 - 20 L/m^{2}hr. The permeate flux of intermittent operating mode is more than that of continuous operation and the value of the permeate flux is between 15 l/m^{2}hr and 20 l/m^{2}hr. The MBR equipped novel device which adopting intermittent operating mode is most effective in this study and the value of permeate flux is between 20 l/m^{2}hr and 25 l/m^{2}hr.

KEYWORDS

Membrane Bioreactor, Separation, Fouling, Hollow Fiber Membrane

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