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INFLUENCE OF FERRIC IRON CONTENT ON THE TREATMENT EFFICIENCY OF PRINTING AND DYEING WASTEWATER

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Abstract

Adding ferric or bio-ferric agent is method to improve membrane fouling and prolong membrane life.This paper analyses the influence of ferric content on treatment effect of printing and dyeing wastewater, through examining the change of COD and dyestuff content in supernatant with the change of ferric content in sludge and in supernatant. COD in supernatant is reduced with increase of ferric content in sludge, and the dyestuff content in supernatant is reversed, which might be due to the adsorptivity of ferric hydroxide flocs to the pollutants and the dyestuff. COD and dyestuff content in supernatant increased as the ferric content increases in supernatant. It is because the worse the performance of bio-ferric sludge, the lower the degradability of sludge to pollutants.

Key words: bio-ferric, membrane bioreactor (MBR), printing and dyeing wastewater, sludge

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