พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสีเขียวนี้เพียงแผ่นเดียว

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SUKASOM SUKSATHAN : EFFECTS OF SLUDGE AGE ON COD REMOVAL OF BREWERY WASTEWATER BY ANAEROBIC-OXIC ACTIVATED SLUDGE PROCESS, THESIS ADVISOR:ASSO.PROF.THREERA KAROT,Ph.D
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Treatment of brewery wastewater using anaerobic-oxic activated sludge was done in an experimental model.The total HRT was 28.8 hrs and the volume fraction of anaerobic tank was 1:6.The sludge ages were varied from 3 to 15 days with sludge return rate of 100%.The wastewater in this experiment had total COD of 1000 g./m^3 and the COD:N:P ratio was 150:5:1.

When the sludge ages were 3,7,11 and 15 days,the F/M ratio in the anaerobic tank were 7.27, 4.11, 3.41 and 3.24 kg.COD/kg.MLSS-day and the system F/M ratios were 1.41,1.73,0.52 and 0.50 kg-COD/kg.MLSS-day respectively.

The COD removal efficiency in the anaerobic tank varied with the sludge ages and varied inversely with the F/M ratio.When the sludge ages increased, the COD removal efficiency in the anaerobic tank was also increased.

Within the range of sludge ages of 3 to 15 days,the F/M ratio and the sludge age did not significantly affect the system total COD removal efficiency.The COD removal efficiency of the system was in the range of 94-96%.

At 20° C,the specific decay rate constant(b)= 0.002 $hrs.^{-1}$, the true growth yield(Y_g)= 0.367 g.cell/g.COD,the maximum specific growth rate constant(μ_m)= 0.015 $hrs.^{-1}$ and the half velocity constant(K_s)= 16.44 g.COD/m^3.

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สาขาวิชา วิศวกรรมสุขาภิบาล ลายมือชื่ออาจารย์ที่ปรึกษา .....

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