

통계학적 성장 모델을 이용한 생물학적 막분리공정 파울링 평가 및 진단

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This study was carried out to statistically evaluate the removal performance of nutrients in the MBRs. Changes in temperature because of change in different seasons and increase in trans-membrane pressure (TMP) due to membrane fouling could be the reasons causing the change of removal performance. Therefore, in order to realize a proper strategy to manage the quality of effluent in the system, a statistic evaluation method of removal performance according to the changes in temperature and TMP would be necessary. For this, a multivariate analysis method was proposed to consider in this study. The results of testing the hypothesis showing that there could be different statistically the mean performance among periods of time on the same membrane or among membranes in periods of time. This could be useful to optimize operating conditions in the MBRs.

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