

Finding of coefficients and oxidizable Nitrogen from palm oil mill effluent (POME) for activated sludge models(ASMs)

Abstract

Activated Sludge Models (ASMs) have been widely used as a basis for further model development in wastewater treatment processes. Values for parameters to be used are vital for the accuracy of the modeling approach. The objective of this study is to determine coefficients of the system, and oxidizable nitrogen of palm oil mill effluent (POME). A continuous stirred tank reactor (CSTR), with continuous flow for 20 hours, was used in this study. The DO profile for 11 days was monitored. The total, soluble, insoluble COD and soluble ammonia nitrogen were measured at the beginning and end of the experiment. Also, the coefficients and oxidizable nitrogen fractions are determined.