ABSTRACT:

Activatedsludgemodels (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. A continuous stirred tank reactor (CSTR), as open respirometer with continuous flow for 20 h is used in ASMs. The dissolved oxygen (DO) profile for 11 days was monitored. It was found the mass transfer coefficient KLa is 0.3 h-1 during lag and start feed phase and 0.01 h-1 during stop feed phase, while the heterotrophic yield coefficient YH is 0.44. Some of the chemical oxygen demand (COD) fractionations of palmoilmilleffluent (POME) using respirometric test in ASM models are Ss 50 mg/L, SI 16,600 mg/L, XS 25,550 mg/L, and XI 2,800 mg/L. The comparison of experimental and ASM1 from OUR concentration is found to fit well.