



IDENTIFYING ANAEROBIC DIGESTION MODELS USING SIMULTANEOUS BATCH EXPERIMENTS

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Abstract

Mathematical models have become a valuable tool to study the anaerobic digestion process, to guide plant design and optimize operation strategies. Models require accurate and significant parameter values for being useful. Although the identification problem is an issue of concern, often is neglected. The described method for model calibration consists on the performance of simultaneous batch experiments (SBE), which requires simple and usually available equipment, and is based on the analysis of the responses obtained when starting from different initial conditions. The objectives of the present work are to analyze the SBE method, illustrating and discussing the required steps, and to contribute to its systematization.

Key words: anaerobic digestion, batch experiments, mathematical modeling, parameter identification

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