

## A Further Insight to Foaming in Anaerobic Digester

**Authors :** Ifeyinwa Rita Kanu, Thomas Aspray, Adebayo J. Adeloje

**Abstract :** As a result of the ambiguity and complexity surrounding anaerobic digester foaming, efforts have been made by various researchers to understand the process of anaerobic digester foaming so as to proffer a solution that can be universally applied rather than site specific. All attempts ranging from experimental analysis to comparative review of other process has been futile at explaining explicitly the conditions and process of foaming in anaerobic digester. Studying the available knowledge on foam formation and relating it to anaerobic digester process and operating condition, this study presents a succinct and enhanced understanding of foaming in anaerobic digesters as well as introducing a simple and novel method to identify the onset of anaerobic digester foaming based on analysis of historical data from a field scale system.

**Keywords :** anaerobic digester, foaming, biogas, surfactant, wastewater

**Conference Title :** ICEEWM 2015 : International Conference on Environment, Energy and Waste Management

**Conference Location :** Paris, France

**Conference Dates :** October 29-30, 2015