

Effects of pH on Phosphorus Recovery from Different Composition of Food Waste Using Anaerobic Batch Digestion

ABSTRACT

Anaerobic digestion is a process by which microorganisms break down biodegradable material in the absence of oxygen. The process involves hydrolysis, acidogenesis and methanogenesis stages. Anaerobic digestion of food waste has been widely investigated for biogas recovery but limited study was performed on phosphorus recovery, which is reported depleting. Food waste is produced every day and dumped on landfill for final disposal which may lead to environmental issues such as odour problems and greenhouse gases release, due to decomposing of food waste, hence impacts global climate change. In anaerobic digestion pH is a very crucial parameter in an attempt to recover phosphorus as it highly influences the production of organic acids during acidogenesis.