

Anaerobic digestion of food waste

Abstract

The rationale of study of anaerobic digestion systems is considered, providing details of the working principles of anaerobic digestion systems for methane production as well as management of municipal solid waste, mainly kitchen waste. Background studies on the design of different types of biodigesters and theories of the production of methane gas from food waste are also discussed. The physical and chemical operating parameters for the process of methane gas production are also deliberated in this chapter since it is an essential part to be considered during design of an anaerobic biodigester. The environmental factors that have a major influence on production of methane gas from food waste and previous research work are analysed. Baseline design information is discussed to develop a suitable portable household food waste biodigester.