

ABSTRACT

MFC can be termed as an environmental friendly way of generating electricity in the process of anaerobic digestion of Biowaste materials. It uses bacteria to convert chemical energy into electrical energy.

The Length, Diameter, Surface area of the Proton exchange membrane (PEM), Substrate used and Material of an electrode of a MFC play an important role in the generation of electricity.

The present work aimed to study about the Voltages generated in a microbial fuel cell by varying the length, diameter and the surface area of the Proton Exchange Membrane (PEM) with different mixture of substrate and different materials of electrode for a number of H-shaped dual chambered MFC. Further, in order to increase the voltage, two H-shaped MFC were stacked together in series to obtain a open circuit voltage range from 1V to 1.4V