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BIOELECTRICITY PRODUCTION FROM VEGETABLEWASTE USING MICROBIALFUEL CELLS

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Abstract:

Microbial fuel cells (MFCs) are bio-electrochemical devices used to generate bioelectricity from a wide range of substrates by using bioelectrogenic microorganisms. We have a special interest to satisfy the energy demands for small devices and at the same time as a renewable energy source. In this study, a blend of soil-organic matter were tested in two configuration system such as membrane-less single chamber microbial fuel cells (SMFC) and double chamber microbial fuel cells (DMFC) devices. The bioelectricity is generated along with biotransformation of organic wastes over a testing time of 60 days and without renovation of substrate in batch mode of operation. The result of the experiment have shown the relationship among substrate and performance efficiency of output voltage in the SMFC and DMFC.

Keywords: *Microbial Fuel cells, bioelectricity, bioelectrogenic microorganisms.*

