

Chapter: 6

Recent progress in electrogenic microbial communities in microbial fuel cells

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Abstract

The depletion of non-renewable energy has led to the development of pollution free energy resources. Combustion of fossil fuels emits a lot of greenhouse gas like carbon dioxide, which has shown alarming consequences to the environment. Wastewater treatment and electricity generation have been the major concerns for the last few years [1][2]. Microbial fuel cells (MFCs) is lauded for its potentials to solve both energy crisis and environmental pollution [3]. MFCs are energy conversion devices that simultaneously produce electricity while degrading the wastewater's organic materials[4]. MFCs harvests energy through the oxidation of organic substrates and transform into the electric current with the aid of electrogenic microbes [2]. The recent progress in electrogenic microbial communities in microbial fuel cells is discussed and reported.

Keywords:Microbial fuel cells (MFCs), Electrogenic microbes, Energy generation, Environmental pollution.