THE MICROBIAL FUEL CELL (MFC)

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ABSTRACT:

The demand for energy is accelerating day by day and this is triggering the global energy crisis and environmental pollution. In order to meet these high demands relying on fossil fuels is definitely not approachable as these fuels are depleting supplies and contribute to the environmental pollution. So, to overcome this problem the researchers have come up with a fuel cell that produces energy from microorganisms and this none other than the microbial fuel cell.

The microbial fuel cell is a bi-electrochemical device that harnesses the power of respiring microbes to convert organic substrates directly into electrical energy. This is completely based on oxidation and reduction reactions.

The use of this fuel cell is mainly pertaining to, power generation without any impact on the environment. In MFCs, oxidation of organic carbon sources does not contribute net carbon dioxide to the atmosphere, and there is no need for extensive pre-processing of the fuel or expensive catalysts .All of these are added advantages to this fuel cell.

The MFC’s find their applications in various fields like industries, space, waste water treatment etc.

Our presentation mainly deals with the detailed working of the MFC and a detailed description of its role in waste water treatment and power generation .Also, the working of this MFC in combination with photoelectrical chemical cell would be highlighted.