

Electricity Generation from Organic Sludge using Microbial Fuel Cell

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Microbial fuel cells (MFC) have been developed that can generate electricity directly from marine sediments, anaerobically digested sludge, food wastewater, and domestic wastewater. The amount of power produced varies depending on the type of reactor and the specific source of the organic matter. Experiments using a two-chambered MFC with a cathode indicated that electricity could be generated from organic sludge wastewater containing 2800 mg/L of soluble chemical oxygen demand (SCOD). Over a period of a few weeks, electricity generation gradually increased to a maximum power density of 400 mW/m² (100 Ω resistor).