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MICROBIAL FUEL CELL FOR ELECTRICITY PRODUCTION

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ABSTRACT

In this research paper I have tried to build the microbial fuel cell using the kitchen waste water like the rice washed water and other household waste as the biomass using the E.coli and C.sporengenes species and tried to measure their potential to produce the electricity.

I also have compared the results of the potential of both the species in production of electric current using different biomass for various incubation time periods. Initially the species were inoculated in their growth media for 24hours to grow at sufficient quantity.

Later on I built the MFC using 2 PAC bottles using the agar-salt bridge. Then I inoculated the species with different biomass separately in separate MFC set up. Further I allowed the species to respire anaerobically and completed the circuit with external connections.

I also connected a multimeter and thus after the incubation the bacterias fed on the biomass and converted the organic matter to electricity which was measured and tabulated graphically. Thus the bacterial potential of electricity production was made practical and their properties were explored.

KEYWORDS: Microbial Fuel Cell, Electricity Production, E.coli and C.sporengenes