

Studies on the Feasibility of Cow's Urine as Non-Conventional Energy Sources

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Abstract : Bio-batteries represent an entirely new long-term, reasonable, reachable, and eco-friendly approach to generation of sustainable energy. In the present experimental work, we have studied the effect of the generation of power by bio-battery using different electrode pairs. The tests show that it is possible to generate electricity using cow's urine as an electrolyte. C-Mg electrode pair shows maximum Voltage and Short Circuit Current (SCC), while C-Zn electrode pair shows less Open Circuit Voltage (OCV) and SCC. By the studies of cow urine and different electrodes, it is found that C-Zn electrode battery is more economical. The cow urine battery with C-Zn electrode provides maximum power (707.4 mW) and durability (up to 145 h). This result shows that the bio-batteries have the potency to full fill the need of electricity demand for lower energy equipment.

Keywords : bio-batteries, cow's urine, electrodes, non-conventional

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