Abstract Submitted
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Performance of Electricity Generation from Bryophyllum Leaf for Practical Utilisation[1] PROF. DR. MD. KAMRUL ALAM KHAN, professor — Constructing an affordable cost, environment friendly simplified electrical energy source with Pathor Kuchi Leaf (PKL) for power electrifications which will significantly upgrade the life style of 1.6 billion people especially, who live in rural areas of Bangladesh. However, one fifth of the world's population still lack access to electricity-well, mainly in Sub-Saharan Africa and South Asia (Bangladesh, India, Sri Lanka, Pakistan, Nepal and Bhutan). This innovative technology will meet essential requirements as lighting, telecommunication as well as information access. Electrodes are put into the *Bryophyllum Pinnatum* Leaf (BPL) or Pathor Kuchi Leaf (PKL) sap and they produce substantially sufficient amount of electricity to power energy consumed electronics and electrical appliances. $CuSO_4.5H_2O$ solution is used as a secondary salt. The role of $CuSO_4.5H_2O$ solution has been studied. The electrical and chemical properties, a very important factor for PKL electricity generation device have been studied in this research work. The electrical properties are: internal resistance, voltage regulation, energy efficiency, pulse performance, self discharge characteristics, discharge characteristics with load, capacity of the PKL cell, temperature characteristics and life cycle of the PKL cell. The chemical properties are: variation of voltage, current with the variation of $[Zn^{2+}]$, $[Cu^{2+}]$ and time. The performance of the production of the two bi-products (fertilizer and hydrogen gas production) has been studied. Variation of concentration of Zn^{2+} and Cu^{2+} with the variation of percentage of the

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