Title: **A Study on Zn/Cu-Based Pandan Leaf (Pandanus Amaryllifolius) Electrochemical Cell(Conference Paper)**

- Rasel, S.R.,
- Khan, K.A.,
- Hossain, M.S.,
- Islam, S.,
- Hazrat Ali, M.,
- Khatun, R.

Abstract

At present, there is a dire need of electricity around the world. There are a lot of remote areas where grid electricity is absent. So that some innovations are needed there for electricity production. The nonrenewable energy sources are limited. But we have a plenty of renewable energy sources. Although renewable energy sources are more safer for use in human life and the environmental pollutions. After finishing the renewable energy sources, people can use sun and plants for electricity generation. In our research paper, an idea has been taken for electricity production from pandan leaves because plants and leaves grow everywhere. The current and voltage have been generated from the pandan leaves which have been further used to light the LED lamp. Lighting the LED bulb proved that the idea was successful for electricity generation from pandan leaf. It is not limited to LED bulb; further, this idea will be used for other electric appliances. Pandan leaf (PL) has been used for getting electricity. The scientific name of the pandan leaf is Pandanus amaryllifolius. The pandan leaf extract has been used for electricity production. A comparative study has been done for both with and without secondary salt. $CuSO_4$ has been used as a secondary salt. It has been studied the several parameters like open circuit voltage, load voltage, short circuit current, load current, maximum power, load power, and internal resistance. These parameters have been developed for both with and without

secondary salt. It is shown that the performance for with secondary salt is better than the without secondary salt. The internal resistance was less for using the secondary salt. After doing this research work, it can be concluded that result is positive for electricity generation from pandan leaf.

Author keywords

ElectricityPandan leaf (Pandanus amaryllifolius)Pandan leaf extractSecondary saltZn/Cu electrodes

- **ISBN:** 978-981990411-2
- **Source Type:** Book Series
- **Original language:** English
- **DOI:** 10.1007/978-981-99-0412-9_5
- **Document Type:** Conference Paper
- **Volume Editors:** Biswas A.,Islam A.,Chaujar R.,Jaksic O.
- **Publisher:** Springer Science and Business Media Deutschland GmbH