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| Title | Study the Impact of Green Synthesized Silver Nanoparticles on Bio-voltaic Cell | | |
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| Abstract |  |
| Bio-voltaic cell is a cell where plant extract is used as electrolyte. In this report, a bio-voltaic cell is proposed where silver nanoparticles (Ag NPs) have been used to accelerate the performances of voltaic cell. The role of Ag NPs on cell was investigated by monitoring the voltage, current, capacity, and voltage regulation of bio-voltaic cell. Ag NPs were synthesized through a rapid green approach by using the Bryophyllum.pinnatum (B. pinnatum) leaves extract and the formation of NPs is confirmed by the UV–visible spectrometer, XRD, FTIR, and FESEM analyses. The Ag NPs were applied on the bio-voltaic cell to examine the electrical performances of the cell. The Ag NPs showed significant role to reduce the voltage regulation, and increase the capacity of voltaic cell. The electrical performances of bio-voltaic cell were significantly improved after using NPs on cell. This study will serve as a promising platform to integrate the efficiency of the bio-voltaic cell. | |