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Journal Name:	Journal of Advances in Microbiology
Manuscript Number:	Ms_JAMB_44635
Title of the Manuscript:	ELECTRICITY PRODUCTION POTENTIAL OF DECAYED Tectona grandis USING MICROBIAL FUEL CELL
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Abstract: 1) It also showed that there was a continuous increase in the current generated which was within the range from (0.032±0.00 to 0.441±0.02) mA. The highest voltage was generated on day 12 with the value (0.369±0.02) mV. It was shown that there was a progressive increase in the voltage generated from 1 to day 12 with the range of values from (0.023±0.01 to 0.369±0.02) mV.</p> <p>1. Introduction: 1) Microbial fuel cell technology is a new type of renewable and sustainable method for the production of electric energy from the microbial breakdown of organic matter (put reference); 2) A Microbial Fuel Cell (MFC) is a device that converts chemical energy from bio-convertible organic substrate, directly into electrical energy through the metabolic activity of microorganisms (put reference). Fuel cells are able to generate electricity from many different chemicals by oxidation of the chemicals at the anode and reduction at the cathode (put reference); 3) ...as future economic growth crucially depends on this. (put dot); 4) However, (put comma) this study attempts to isolate the organisms present in decayed wood and determine the feasibility of using <i>Tectona grandis</i> wood to produce current and voltage generation in a microbial fuel cell.. (excess dot); 5) careful with words repeated in same phrase; 6) Observe the write of English language in all the paper; 7) Observe the missing of commas, spaces in some sentences in all text.</p> <p>2. Experiments and Methods: 1) 2.1 Collection and preparation of samples; 2) Show in the paper, images of the forest plantation; 3) Show images of the Petri plate, containing bacteria and fungi, which were grown for production of this paper; 4) Nutrient agar plates were incubated at 37 °C for 24 hours for bacteria and 28 °C from 3 to 5 days for fungi on potato dextrose agar plates, respectively in duplicate before examination for microbial growth – To cite or reference the standard used to make the bacteria and fungi isolate; 5) Colony counting was carried out on plates (in duplicates) by using colony counter (put more technical details, e.g., brand, model, counting range, etc). Colony counting was expressed as cfu (write full) x 10⁵ and sfu (write full) x 10⁴ per gramme of decayed wood for bacteria and fungi, respectively (put reference); 6) The bacteria isolate was subjected to various biochemical test, while the fungi isolates were identified by viewing under a microscope (put more technical details, e.g., brand, model, amplitude, reading range, etc) (Samson and Varga, 2007); 7) To show some of the bacteria and fungi images obtained in microscope for this paper; 8) What the material that anodes and cathodes were fabricated? 9) Put a image or scheme (identify the main parts) of the microbial fuel cell constructed for this work; 10) in chemical elements presented in text, put also the full name or chemical formula; 11) A multimeter (put more technical details, e.g., brand, model, amplitude, frequency, reading range, etc) was connected to the copper wires and it was used to read the current and voltage produced.</p>	<p>The corrections have been effected and has been highlighted yellow in colour. Thanks you.</p> <p>The corrections have been effected and has been highlighted yellow in colour. Thank you.</p> <p>All corrections have been effected and has been highlighted in yellow. Thank you.</p> <p>All corrections have been effected and highlighted yellow. Thank you</p>



	<p>3. Results</p> <p>1) All the isolates showed different biochemical reactions and were morphologically characterized. – Suggestion: to present in the paper some images interesting obtained by this technique;</p> <p>2) In Table 1, was not possible identify all symbols/codes used by authors, example: +, -, NA, A, AG (what is??), indicate them as a sub-caption of the Table;</p> <p>3) Table 2 is well interesting, however present the microscopy images in the paper, would make it easier to see and understood;</p> <p>4) The lengths of amplified products were 1412, 1000, 1499, 1425, 1512, 1419, 1525... How the authors reached these values?? What they mean??</p> <p>5) Plate 1, image quality is bad, was difficult identify/observe what the authors wanted to show;</p> <p>6) How was the DNA analysis done?? This technique no appear in the methodology;</p> <p>7) The authors no described the methodology used for the Gel Electrophoresis analysis;</p> <p>8) The image quality of the Plate 2 is not good. Improve for better visualization;</p> <p>9) None comment was made in the paper about Plate 2, some comments about Plate 2 would be interesting;</p> <p>10) This value (KT997475.1) is not agree with the Phylogenetic tree presented in Plate 2;</p> <p>11) The voltage generated from the decayed wood during the period of 14 days is represented in Figure 1. The voltages produced were within the range from (0.023± 0.01 to 0.369±0.02) mV. The current produced were within the range from (0.032±0.00 to 0.441±0.02) mA.</p> <p>12) I Suggest add in Figure 1 a tendency line, as well as linear adjust equation;</p> <p>13) Idem for the Figure 2;</p> <p>4. Discussion</p> <p>1) However, there were differences in total counts viable bacterial and fungal of <i>Tectona Grandis</i>.</p> <p>2) It was observed that bacteria counts were higher than fungal counts (put the values for bacteria and fungi and compare them). High microbial counts in the decayed woods could be attributed to high (value??) moisture content and nutrients (which are??) present in the soil where the woods are fallen.</p> <p>3) However, the presence of <i>Pseudomonas putida</i> and <i>Acinetobacter iwoffii</i> is highly uncommon and could have been as a result of contamination or environmental factors (which are??) as reported by Chenhui <i>et al.</i> (2017), who confirmed that the microbial community compositions of fallen logs are affected by both physicochemical wood properties (which are??) and environmental factors.</p> <p>4) In addition most of the isolated microorganisms (which are??) from the decayed wood owned their origin from air and soils (Why??), this is in agreement with the findings of Singh <i>et al.</i> (2014);</p> <p>5) Polymerase Chain Reaction revealed that the molecular weight of the genomic DNA of sequenced bacteria in this study is 1500 bp. How the authors arrived in this value??</p> <p>6) According to the 16S rDNA analyses, selected bacteria showed more than 80% similarity in the NCBI (write full) Gene Bank by BLASTn (What is it??);</p> <p>7) ...allowing specific and efficient identification of microorganisms as against cultural method that is probable. How the authors can affirm such situation??</p> <p>8) This could be as a result of low proton transfer between the anode and cathode, when the decayed woods were immersed in water and kept in the same position throughout the experiment which limited power generation;</p> <p>9) This is in agreement with the findings of Liu <i>et al.</i> (2005) who reported the same (remove);</p> <p>10) The highest current (value??) generated from the decayed <i>Tectona grandis</i> was recorded on day (12) twelve (Figure 2) after which it started decreasing gradually. Why this occur??</p> <p>11) This is similar with the finding of Sonal and Prakash (2013), who used waste water to generate current and had the highest current generated on day 8, after which there was a</p>	<p>All corrections have been effected and highlighted yellow. Thank you</p> <p>All corrections have been effected and highlighted yellow. Thank you</p>
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	<p>decrease in current generated. 12) The maximum voltage generated within 14 days was on day (11) eleven (Figure 1), after this was noticed a definitive decrease – What is the explanation for this?? 13) The result obtained is comparable with of Parkash (2016), who reported a similar result, for example, initially the voltage raised rapidly, but after started falling down.</p> <p>5. Conclusion 1) The paper present many results interesting and promising, therefore, the conclusions can be improved and enlarged.</p>	
Minor REVISION comments	<p>1) Observe in all text the correct way of the citations and references, according to journal template. 2) Chonde, S., Mishra, A. and Raut P. (2013). Bioelectricity production from wastewater using Microbial Fuel Cell (MFC) – reference no cited in text; 3) Sonal and Prakash (2013) – citation no referenced. 4) Consult others references about the subject, for example: Abiola and Oyetayo (2016), Res. J. Microbiol., vol. 11 (2-3): 47-55 or Tahira <i>et al.</i> (2017), Int. J. Pharma. Sci. Res., vol. 8 (7): 3107-3112.</p>	All corrections have been effected and highlighted yellow. Thank you
Optional/General comments	<p>Congratulations! This paper is good, present innovation trends and promising, using decayed wood for electricity production potential, using microbial fuel cell. Results also were interesting for microorganisms isolating.</p>	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	NO