



**SDI Review Form 1.6**

Journal Name:	<a href="#">Microbiology Research Journal International</a>
Manuscript Number:	Ms_MRJI_49238
Title of the Manuscript:	FLOCCULATING PROPERTIES OF A BIOFLOCCULANT PURIFIED FROM BACILLUS SUBTILIS ISOLATED FROM THE STREAM SEDIMENTS OF ONYEARUGBULEM MARKET, AKURE.
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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<p><b>Compulsory</b> REVISION comments</p>	<p>Add the country in the title</p> <p><b>Abstract</b></p> <p>Line 7. Add the country after state</p> <p>Line 9 Al has 3 positive charges (Al<sup>3+</sup>)</p> <p>Line 11 replace bacterium by isolate</p> <p>“Six bacterial isolates producing flocculating substances were isolated and the bacterium with the best flocculating property was selected.” Rewrite that sentence.</p> <p>Line 13 the coma is not after Streptomyces, check</p> <p>Authors have to precise the method used for strain identification.</p> <p>Line 14, authors have to precise the yield of bioflocculant obtained with <i>B. subtilis</i></p> <p>Authors must add one concluding sentence at the end of abstract.</p> <p><b>Introduction</b></p> <p>Subsection in introduction is not good. Authors have to remove that subsection and find transition word to link the two paragraphs.</p> <p>Line 26 remove the full stop after “et”</p> <p>Line 31 are you sure that bioflocculant are “inorganic” macromolecule meaning that they did not contained carbon? check again</p> <p>Again, according to your definition flocculating biopolymers derived from plants can not consider as bioflocculants.</p> <p>Line 36 why that double bracket? “(<i>Chlamydomonas reinhardtii</i>, <i>Chlorella minutissima</i>) (<i>Arcobacter</i>, <i>Cellulosimicrobium Cellulans</i>, <i>Aeromobacter xylofidans</i>.)”</p> <p>Line 41 add full stop after al</p> <p>Line 45. Authors have to add the objective of their study</p> <p><b>Materials and methods</b></p> <p>Line 51, meter not metres</p> <p>In the description of your study area, there are no reference of the state or country which are very important for such kind of study. It would be better of you provide the map of the sampling site.</p> <p>Liter (L) not litre</p> <p>Period of study? (dry or rainy season?), Soil sample size?</p> <p>Do you means 50 L of water per collecting site (upstream, mid-stream and downstream) or 50 L of the mixture of upstream, mid-stream and downstream water?</p> <p>Line 61, remove “Determination of” and leave only “Physicochemical Properties of the Soil and Water Samples”</p>	



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	<p>Line 62 precise which physicochemical parameters were determined?</p> <p>Line 63 to 64, the reference citation style is not good choose only one ref</p> <p>Line 68 milliliters not millilitres</p> <p>Line 70 stirring at which speed? provide that information otherwise your experiment could not be reproducible</p> <p>Line 75 were added not was</p> <p>Line 76, rewrite that sentence "This was left to stand overnight"</p> <p>Line 79 precise pore size of Whatman paper</p> <p>Line 85, this sentence seems incomplete "The results obtained for both Ca<sup>2+</sup> and Mg<sup>2+</sup> ions present together in the sample solution"</p> <p>Authors must harmonize the way of writing unit, either with space after number (correct one) or without space</p> <p>Line 93 to 95 authors must use equation editor</p> <p>Line 109 stirred at which speed?</p> <p>Line 114 to 119, where is the formula?</p> <p>Line 131 to 133 authors must use equation editor</p> <p>Line 136 what is the concentration of the extracting solution?</p> <p>Line 61 you are talking about soil and water samples, but in your methodology only soil sample are developed, what about water sample?</p> <p>Line 151, is it 20 mL of concentrated sulphuric acid or distilled water? Check</p> <p>Line 160 precise the concentration of baric acid</p> <p>Line 166, the "distillate was titrated" not distilled water</p> <p>Line 167, 0.5 M not 0.5m</p> <p>Line 169 to 176 use equation editor</p> <p>Line 178 between 350 and 440°C, the temperature gap is too high, be more precise on the value of temperature you had used.</p> <p>Line 180 and 185, the formula is not complete</p> <p>Line 195 to 199 use equation editor</p> <p>Line 201 one gramme of.... was weighed and transferred</p> <p>Line 208 to 211 use equation editor</p> <p>Where is statistical analyses section ?</p> <p><b>Results and discussion</b></p> <p>Line 212, before that you need to show isolation of microorganisms, their identification, screening of biofloculant production, method of production of the flocculant by microorganisms. Which inoculum size was used? which temperature? and many other details related to production process?</p> <p>Line 213 to 225 authors must provide some brief details on the method used despite the</p>	
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	<p>reference</p> <p>Line 228 authors must provide details on the method used to perform microbial analyses, what is treatment that authors are talking about? in the methodology authors did not mentioned any treatment.</p> <p>Results and discussion</p> <p>This section must be separate in sub section with the first one entitled physiochemical parameters of soil and water samples and the next one isolation of bioflocculant producing bacteria, then screening for bioflocculant production with precision on what is measured to assess production of bioflocculant</p> <p>Line 232 to 239 authors must rewrite this section and added ranged values for each parameter assessed followed with interpretation of results and discussion.</p> <p>Line 240, start with the number of strains isolated per sites, and the number of strains which were positive after screening process, and identification of these positive strains.</p> <p>Line 268, pH definition is not correct.</p> <p>Table 1, 2 and 3 must be redraw.</p> <p>Line 332 to 339 remove the letter in superscript on strain name's and add codification after strain name</p> <p>Where are the yield of bioflocculant? you must use it to compare strain. How did authors have purified their bioflocculant?</p> <p>Line 341 explain why there is a "progressive decline in the flocculating activities with increased dosage level"</p> <p>Line 343, why did you decide to carry out effect of minerals? use that reason as transition to reach this part.</p> <p>Line 343 to 350, when you start with effect of mineral complete that section with interpretation, and discussion and added the graph before going to the next effect of pH and other</p> <p>The position and footnotes of your figures are not good, correct them.</p> <p>What is error bar? why for the fig 1 it is give as percentage of CI and for fig 2 it's as SE?</p> <p>Line 402 of not ot</p> <p>Line 406, etc. not e.t.c.</p> <p>Line 407 to 408, sentence is meaningless, rewrite</p> <p>Line 408, "the" highest</p> <p>Line 409 to 410, did you perform growth kinetic? how can you affirm that it is the dead phase?</p> <p>Line 411, rewrite that sentence "<i>Bacillus</i> sp isolated in this research had their bioflocculants produced in less than 72 hours of production which increased with time for all at 144 hours but decreased after 216 hours of production in the case of <i>Bacillus thuringiensis</i> and <i>B.</i></p>	
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	<p><i>subtilis.</i>"</p> <p>Line 415, it is better to not introduce inoculum size here because you didn't perform it. You can't talk about inoculum because you precise that you used purified bioflocculant</p> <p>Line 424 to 425, rewrite that sentence "The quantity of the bioflocculant taken at varying quantities per milliliter reflects the ability of that bioflocculant to bioflocculate" and use synonym to avoid word repetition.</p> <p>Line 434 to 435, "The variation in the flocculating activity recorded could be because of the fact that the bioflocculants were produced from different organisms and this therefore justifies the disparity in the effect Na<sup>+</sup> and K<sup>+</sup> has on the bioflocculating activity". Do you mix the bioflocculant before carrying out test? there are too many details like that which not appears in the methodology. Again, when I look the title of fig it seems like you use bioflocculant of only one organisms</p> <p>Line 463 to 4689 what could explain the thermal resistance of your bioflocculant? do you characterize it?</p> <p><b>Conclusion</b> This section is poorly written, it has to be completely rewrite.</p> <p>Line 478, check reference style</p> <p>Line 503, complete reference with page number</p> <p>Line 506, add comma after journal name</p> <p>Line 509, 519, 522, 525 after journal issue it is ":" not ","</p> <p>Line 512 and 516, check reference again</p>	
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	



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**Reviewer Details:**

Name:	<b><i>Mouafo Tene</i></b>
Department, University & Country	<b><i>Cameroon</i></b>