



SDI Review Form 1.6

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| Journal Name: | Current Journal of Applied Science and Technology |
| Manuscript Number: | Ms_CJAST_48284 |
| Title of the Manuscript: | Enhanced Biodegradation of Degreaser Using Pseudomonas and Bacillus Species in Fresh Water Ecosystem |
| 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

| | 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) |
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| Compulsory REVISION comments | <p>Abstract</p> <p>Aim: Bacillus and Pseudomonas should be italicized.</p> <p>Study design: this part did not show any kind of statistical design used by authors. it should be rewritten.</p> <p>Place and duration of studies: Where is the duration of study?</p> <p>Methodology: the bioremediation was monitored at which temperature?</p> <p>"Five species of bacteria: <i>E. coli</i> sp, <i>Micrococcus</i>, <i>Citrobacter</i>, <i>Bacillus</i>, and <i>Pseudomonas</i> species and four fungal species: <i>Penicillium</i>, <i>Mucor</i>, <i>Aspergillus</i> and <i>Rhizopus</i> species were isolated and identified as hydrocarbon utilizing bacterial and fungal" ...is a result not methodology</p> <p>This sentence also need to be rewrite as "Five bacterial' strains belonging to <i>E. coli</i>, <i>Micrococcus</i>, <i>Citrobacter</i>, <i>Bacillus</i> and <i>Pseudomonas</i> species and four fungi strains belonging to...."</p> <p>Results: give the strain who showed the best degradability percentage, the best substrate and the interaction effect of strain on degradability.</p> <p>Conclusion: should be rewrite as "The results revealed that <i>Bacillus</i> species have more degradability potential than <i>Pseudomonas</i> species for both Aquabreak and Rigwash. These results also indicated the low biodegradation potential of Rigwash in fresh Ecosystem".</p> <p>Line 44. ref style is not good. and remove capital letter on degreasers</p> <p>Line 46 to 50. added ref</p> <p>Line 57 to 58. The aim is not corrected. Because at the beginning you are not sure and you cannot affirm that only <i>Pseudomonas</i> and <i>Bacillus</i> will be active.</p> <p>Line 58. Remove capital letter of species</p> <p>Line 62. Start by presenting the study area. Then give necessary details on sample collection process in order to make the study reproducible by other researchers.</p> <p>Line 65. Why test organisms are <i>Pseudomonas</i> and <i>Bacillus</i>? if so Where do you get the other bacterial and fungal species you cite in the abstract.</p> <p>Line 66. Added full stop after ref.</p> <p>Line 67. Information on culture media used like manufacturer and others. which volume of nutrient agar was introduced in plates?</p> <p>Line 68. Added full stop after 24 hours.</p> <p>Line 73 to 74. Giving that isolation was not performed on specific culture media, authors should bring information on which biochemical test they did.</p> <p>Line 77. Which volume of nutrient broth was used in inoculation process?</p> <p>Line 81. Is 0.5 McFarland standard correspond to 30 to 300 colonies?</p> <p>Sometime there are spaces between number and unit and in other place there are no spaces, uniformize it.</p> <p>Line 84 to 88. Why authors didn't used sterile freshwater? with raw freshwater interaction with endogenous flora of water could result in improvement or reduction their potential. there is a lack of information regarding inoculation process and inoculum volume used. This experiment described like that is not reproducible.</p> <p>Line 93 to 97. You are working with a specific culture (two strain), why authors didn't follow the growth kinetic of these two strains during bioremediation? what is the interest to follow the growth of other microorganisms?</p> <p>Line 102 to 132. Protocols were poorly writing. Authors have to rewrite this part in a scientific manner. also used edit equation (line 125).</p> <p>Line 139. From 10^{-5} to which dilution???</p> <p>Line 145. Use edit equation</p> <p>Line 151. 250 mg or μg of tetracycline?</p> <p>Line 152. Why 35°C for 3 days for fungal? why not 25°C for 5 days? And why authors decide to count only fungal spores</p> | <p>All identified areas have been corrected appropriately.</p> <p>All identified areas have been corrected appropriately.</p> |



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| | <p>and not yeast colonies?</p> <p>Line 154. Use edit equation</p> <p>Line 159. Why only 10⁻² dilution not others?</p> <p>Line 161. Provide filter paper pore size</p> <p>Line 172. Where is the statistical analyses part of the work?</p> <p>Line 174. "of strains isolated from freshwater samples collected at..." is better than "of the test isolates used for the enhance biodegradation of the Degreasers (Aquabreak and Rigwash)"</p> <p>Line 177. Specify what + and – refer to, and what VP or Mr means</p> <p>Line 180. pH is poorly written</p> <p>Line 181. The pH-meter not the meter</p> <p>Line 183 to 184. Your tentative discussion is not good. rewrite</p> <p>The results regarding isolation and identification, there are not information about the number of strain isolate, the number which have shown specific characteristic belonging to a specific genus? authors have not commented their results, no interpretation, and no discussion. This section has to be rewrite.</p> <p>More important, authors cannot talk of species in this work, because identification carried out is at genus level, not at species level.</p> <p>Line 178 to 184. Same as previous, results are not commented. no interpretation, and no discussion. all this part also has to be rewrite by authors.</p> <p>Line 194 to 198. No comment of result, no interpretation, authors seem like there are no difference in activities between strains, between the two chemicals... the table 2 is poorly drawing. Authors have done two replications of tests, where are standard deviation? authors also have to perform a Duncan test in order to see the statistical significant difference between the responses measured the strain and the time.</p> <p>Line 208 to 217. where is fig 3 and 4? why directly fig 5,6 and 7? same comments as previous regarding interpretation, comparison between strain, chemical, time..., discussion of results. for fig 5,6,7 8 used Log cfu/mL to draw curves. This section has to be rewrite.</p> <p>Line 249 to 262. How authors identified Enterobacter, Micrococcus and fungi like Aspergillus, Penicillium, Rhizopus or Mucor? there are no methodology and no results regarding that identification? This section has to be rewrite.</p> <p>Line 264 to 270. same comments as previous regarding interpretation, comparison between strain, chemical, time..., discussion of results. This section also has to be rewrite.</p> <p>Line 297. not bacillus species, but isolate belonging Bacillus genera.</p> <p>Conclusion is not good. Authors have to rewrite it, and highlighted all important results obtained in the study.</p> <p>Reference 1, reference 2 and reference 4 are writing differently, choose the one recommended by the journal and harmonize.</p> | Items identified have been rectified |
| Minor REVISION comments | | |
| Optional/General 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) |
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| Are there ethical issues in this manuscript? | <u>(If yes, Kindly please write down the ethical issues here in details)</u> | |