



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Chemical Science International Journal</a>                                                                 |
| Manuscript Number:       | Ms_CSIJ_41080                                                                                                          |
| Title of the Manuscript: | Background Correction Method for Determination of Ascorbic Acid in Baobab Fruit Pulp Using Direct UV Spectrophotometry |
| 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)                                                                                                                                                                                                                        |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>I have some questions accuracy of the method.</p> <p>1. It is known that ascorbic acid (AA) is degraded by high temperatures. So:</p> <ul style="list-style-type: none"> <li>- Did the authors consider that the refrigerated storage would be safer in maintaining the AA content in Baobab pulps (line 126)?</li> <li>- Did the authors tested the method without heating the samples at 50°C, or even tested the lower time necessary to achieve the complete reaction (line 132)?</li> </ul> <p>Although there were no significant differences between the two methods (Cu(II)-EDTA and DCIP), the contents found by the Cu(II)-EDTA method were slightly lower, which may be due by AA degradation by the heating sample. It would be a problem if one wanted to use the method on samples with lower AA contents, even though the authors have made it very clear that the method is suitable for baobab samples.</p> <p>2. How did the authors adjust the pH? It was in the Cu(II)-EDTA solution? It is not clear in the text.</p> <p>3. Sharper intervals of pH, between pH 5.0 and pH 7.0, could be test, just to ensure in which pH the maximum absorbance at 267 nm is achieved. It is a simple test that could offer more robust results.</p> <p>4. Did the authors consider extracting the AA from baobab pulp with metaphosphoric acid solution (lines 127-128)?</p> <p>5. Did the authors consider following any validation protocol to state the terms "accurate" and "precise"?</p> | <p>This work is application of previous reported method, and for more details about the method validation please check the Lau et al. report. Ref. no. (18). But for the first time applied for the determination of AA in baobab fruit, therefore, there is no requirements to validate it.</p> <p>The extraction of AA from the real sample is written in the section of real sample analysis.</p> |
| <b>Minor</b> REVISION comments      | <p>Some textual corrections:</p> <ul style="list-style-type: none"> <li>- Line 27: (...) Baobab fruits are different in shape (...) or (...) Baobab fruits differ in the shape (...)</li> <li>- Line 39: (...) a powerful antioxidant, and dietary (...)</li> <li>- Lines 59; 98 and 153: 2,6-dichloroindophenol</li> <li>- Line 61: (...) which is a very time-consuming method. (...)</li> <li>- Lines 87; 88; 89 and 122: Proper names must be written with the first capital letter.</li> <li>- Figure 1 was not mentioned in the text.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>We thank the reviewer very much for the valuable comments.</p> <p>The English of the manuscript is carefully revised. And the required corrections were done in the revised manuscript.</p>                                                                                                                                                                                                       |
| <b>Optional/General</b> comments    | <p>The manuscript offers a considerable alternative to determine the ascorbic acid content. Some variables have to be re-analysed, but it is a good method that can be used to measure ascorbic acid in fruits other than baobab.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                      |