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Journal Name:	Chemical Science International Journal
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)																											
Compulsory REVISION comments	Background correction method for the determination of l-ascorbic acid in samples of different nature using direct ultraviolet spectrophotometry is well known. The paper is really an application of a known method, instead of a method development. It should be corrected in the manuscript. It is very badly written. It definitely deserves to be revised in order to be a valuable contribution to the Chemical Science International Journal and in order to make it more readily accessible. NB. English is not my first language but many mistakes are easily observable in the manuscript (please see the last page of this document where some reviewer's comments are given). The major weakness of the paper is its English edition. However, it is my belief that the main purpose of the paper as an application could be useful by correcting some items, e.g. significant figures and providing spectra of the analysis. Detail comments (thoughtful comments and constructive suggestions, which help to improve the quality of this manuscript) <table border="1"> <thead> <tr> <th>Line</th> <th>Actual</th> <th>Comments/Remarks</th> </tr> </thead> <tbody> <tr> <td>13</td> <td>... correlation coefficient (R2 =</td> <td>Determination coefficient</td> </tr> <tr> <td>15</td> <td>... 236.66 ± 18.31</td> <td>Significant figures depends on SD, Since the SD is an entire number, the result must be expressed without decimal places: 237 ± 18</td> </tr> <tr> <td>15</td> <td>...250 ± 14.62</td> <td>Idem 250 ± 15</td> </tr> <tr> <td>17</td> <td>...revealed no significant different in precisions</td> <td>...revealed no significant difference in precision</td> </tr> <tr> <td>19</td> <td>...valid</td> <td>The method was not full validated. ...viable or acceptable</td> </tr> <tr> <td>27</td> <td>Baobab fruits are differ in shape</td> <td>...Baobab fruits are different in shape</td> </tr> <tr> <td>29</td> <td>...Baobab fruit pulp has been used as food ingredients in</td> <td>...Baobab fruit pulp has been used as a food ingredient in</td> </tr> <tr> <td>32-38</td> <td>Proximate analysis of ripe fruit points to an average of 8.7% moisture with 2.7% protein, 0.2% fat, 73.7% carbohydrate, 8.9% fibres and 5.8% ash [10]. Concerning minerals, Baobab Fruit Company (2002) [11] reported high Ca, Mg and P contents (4310, 2090</td> <td>It could be deleted because the information is not important for the purpose of the manuscript.</td> </tr> </tbody> </table>	Line	Actual	Comments/Remarks	13	... correlation coefficient (R2 =	Determination coefficient	15	... 236.66 ± 18.31	Significant figures depends on SD, Since the SD is an entire number, the result must be expressed without decimal places: 237 ± 18	15	...250 ± 14.62	Idem 250 ± 15	17	...revealed no significant different in precisions	...revealed no significant difference in precision	19	...valid	The method was not full validated. ...viable or acceptable	27	Baobab fruits are differ in shape	...Baobab fruits are different in shape	29	...Baobab fruit pulp has been used as food ingredients in	...Baobab fruit pulp has been used as a food ingredient in	32-38	Proximate analysis of ripe fruit points to an average of 8.7% moisture with 2.7% protein, 0.2% fat, 73.7% carbohydrate, 8.9% fibres and 5.8% ash [10]. Concerning minerals, Baobab Fruit Company (2002) [11] reported high Ca, Mg and P contents (4310, 2090	It could be deleted because the information is not important for the purpose of the manuscript.	We thank the reviewer very much for his carefully reading our manuscript, and the valuable comments. The English of the manuscript is carefully revised. And the required corrections were done in the revised manuscript.
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		and 733 mg/100g, respectively) and moderate Fe, Zn and Na contents (17, 10.4 and 54.6 mg/100g, respectively). Fruit pulp proved to be rich in pectin, most of it being water soluble with a low content of propectin, low degree of esterification and intrinsic viscosity values of about one fifth of those of commercial apple pectin [12].		
	43	...the best source of ascorbic acid approximately six times more than the content of an orange	... the best source of ascorbic acid, approximately six times more than the content of an orange	
	15	mg/100g	Separation of the unit from the figure or number: mg/100 g Correction of the whole manuscript is recommended.	
	18	95%	Separation of the unit from the figure or number: 95 % Correction of the whole manuscript is recommended.	
	44-45	...recorded 337 mg ascorbic acid/100g pulp for fruits in Nigeria, the Baobab Fruit Company...recorded 34 - 200mg/100g	...recorded 337 mg ascorbic acid/100g pulp for fruits in Nigeria and the Baobab Fruit Company...recorded 34 – 200 mg/100 g Or ...recorded 337 mg ascorbic acid/100g pulp for fruits in Nigeria. The Baobab Fruit Company...recorded 34 – 200 mg/100 g	
	52	...numerous food uses of various plant parts,	...food do not use. Maybe: Various plant parts are used as food ingredients... ...	
	53	and bark fibres that used for a variety of purposes	...and bark fibres are used for a variety of purposes.	
	54	pulp is used in the treatment of fevers,	...pulp is used in the treatment of fever,	
	54	ample	...high	
	58	...2,6-dichloroindophenol...	...2,6-dichloroindophenol... Correction of the whole manuscript is recommended.	
	62	µg/ml	µg/ml vs. µg ml ⁻¹ Correction of the whole manuscript is recommended. Uniformity is needed.	
	71-72	There are various methods available in the	There are various methods available in the literature to correct background absorption	



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		literature to correct for background absorption in the UV región...	in the UV región...
81	...	~~was to develop,~~	This method was not developed. They used a known method for a particular application. Please see line 114: The ascorbic acid ~~contents~~ was determined using previous reported method. [20]
81-82	...	based on the metal-catalyzed oxidation of ascorbic acid was to developed to estimate the content	... based on the metal-catalyzed oxidation of ascorbic acid was developed to estimate the content...
89	U. K.	U. K.	U.K.
92	2.2	Indophenols	2.2. Indophenols
99	has been	"had been" or "was"	"had been" or "was"
106	...acid in mg/100 g. of	...acid in mg/100 g. of	...acid in mg/100 g. of
114	...The ascorbic acid contents s was determined	...The ascorbic acid content was determined	...The ascorbic acid content was determined
119	5.0 ml of Cu (II)-EDTA solution.		
121	2.3.3. Real S ample A nalysis	2.3.3. Real sample analysis	
122	...western kordofan state...	... W estern K ordofan S tate...	
127	1.0 g of baobab pulp powder were pulverized	a sentence should not begin with a number	
127	1.0 g of baobab pulp powder were pulverized	1.0 g of baobab pulp powder was pulverized	
127-128	1.0 g of baobab pulp powder were pulverized by gentle grinding, and triturated with distilled water, ...	..., and triturated with distilled water, ...and triturated in presence of distilled water, ...?????	
129	... Then 5.0 ml of Cu (II) EDTA solution were added	... Then 5.0 ml of Cu (II) EDTA solution was added	
131	...Then 4.0 mL. of ...	...Then 4.0 mL. of...	
131	 Then 4.0 ml. of 5 µg ml-1 CuSO4 solution were added to	 Then 4.0 ml. of 5 µg ml-1 CuSO4 solution was added to	
132	...min. then	...min. Then...	
133	...then 1.0 ml of 5 × 10-4M EDTA...	...then 1.0 ml of 5 × 10-4 M EDTA...	
142	...The ascorbic acid content of ten baobab fruit pulp samples were determined using the two	was	
143	...Firstly, the ascorbic acid content were obtained using...	was	
144	..., and the results were shown in table...	are	
149	..., and was found to be	..., and was found to be 250 ± 15 mg/ 100 g.	



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		250.00 ± 14.62 mg/ 100g.	
149-150	Although the method is rapid, but the reagent itself is unstable and must be standardized before used.	The sentence must be restructured for their understanding. Although the method is rapid, but the reagent itself is unstable and must be standardized before used.	
154	Table 1: 250.00 ± 14.62	Table 1: 250 ± 15	
155	Secondly, the acid contents were determined	Secondly, the acid content was determined	
155-157	In order to select λ _{max} and the suitable pH value, the values were tested at different values of pH and the results were shown in table	are	
174	correlation coefficient R ²	determination coefficient R ²	
175	...to be 1.52	... to be 1.52	
177	Figure 1: Calibration curve for ascorbic acid (Abs. versus concentration, at λ _{max} 267)	Figure 1: Calibration curve for ascorbic acid (Abs. versus concentration, at λ _{max} 267)	
178	...The ascorbic acid contents of...were	...The ascorbic acid content of...was	
179	...were	...was	
180-181		Significant figures must be checked	
187-188	Suggesting that the two results were agreed with each other within experimental error.	English language correction required. Suggesting that the two results agree ... within the experimental error.	
194	Table 4: 236.66 ± 18.31	Table 4: 236 ± 18	
The form of expressing the concentration must be uniform throughout the manuscript.			



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<u>Minor REVISION</u> comments	Some scientific data are erroneous, e.g. they assigned r^2 as the correlation coefficient (r) instead of determination correlation. One important point is that they have selected the pH value in one of the extremes of the selected range (6 - 10). They selected 6 as the ideal pH value. From the point of view of a robust method, the pH value should be selected in the middle of the selected range (plateau) in order to avoid significant changes in the measured signal. At pH 6, any small change in pH of the sample (e.g. at pH 5.5) could generate a representative change in the signal measurement. Various parameters required in the method validation are missing. Authors used a reference method. However, an experimental assay using the standard addition technique could be useful in order to ensure the accuracy of the method.	The corrections were made in the revised manuscript.
<u>Optional/General</u> comments		