



## SDI Review Form 1.6

### **PART 1:**

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|--------------------------|--------------------------------------------------------------------------------|
| Journal Name:            | <a href="#">British Journal of Applied Science &amp; Technology</a>            |
| Manuscript Number:       | MS: 2012/BJAST/1888                                                            |
| Title of the Manuscript: | Experimental Determination and Modelling of the Sorption Isotherms of Kilishi. |

**General guideline: Reviewers are requested to follow these guidelines during review:** *(Note: Title of different sections as proposed below may differ in case of review paper / case reports)*

- Introduction *(Is the problem/objective of this study original, important and well defined?)*
- Materials & methods *(Kindly comment on the suitability of the methods. Sufficient details of the methods should be provided to allow peers to evaluate and/or replicate the work)*
- Results & discussion *(Kindly comment on: 1. Are the data well controlled and robust? 2. Authors should provide relevant references during discussion. 3. Discussion and conclusions should be based on actual facts and figures. Biased claims should be pointed out. 4. Are statistical analyses must for this paper? If yes, have sufficient and appropriate statistical analyses been carried out?)*
- Conclusion *(Is the conclusion supported by the data, discussed inside the manuscript? Conclusions should not be biased and should be based on the data, presented inside the manuscript only)*
- Are all the references cited relevant, adequate? Are there any other suitable current references authors need to cite?
- This form has total 10 parts. Kindly note that you should use all the parts of this review form.



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### **PART 2: Review Comments**

|                                            | <b>Reviewer's comment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>COMPULSORY REVISION</u></b> comments | <p>There are some sections of the paper which are difficult to follow due to poor english. Some of them are detailed as comments.</p> <p><b>Material and Methods</b></p> <p>I think it could be of interest for the reader to know the details about the elaboration and composition of the product under study.</p> <p>I think there are missing information about the methods used for determining some physico-chemical properties of the product, such as water content, density determination</p> <p>Lines 140-147</p> <p>Why did you select 30°C, 40°C and 50°C for determining the sorption isotherms?</p> | <p><b>Material and Methods</b></p> <p><b>Kilishi is first obtained using beef cutout in fine thin strap (1 to 3 mm), then dried and seasoned with local spices and of the groundnut paste.</b></p> <p><b>Three samples of this product, previously dehydrated at 60°C, were set in each of the ten recipients containing the ten saturated salts solutions.</b></p> <p>The main objective later is to develop a dryer for suitable drying of Kilishi. The maximum temperature recommended for drying biological product is 50 to 60°C</p> |
| <b><u>Minor</u></b> REVISION comments      | <p>Line 22.<br/>"This product was degraded". I think you should present instead of past.</p> <p>Line 32<br/>I do not understand the following sentence<br/>"significant source of incomes for the saving"</p> <p>Lines 33-34<br/>Why do you use <math>\theta</math> for temperature instead of T?</p> <p>Line 38<br/>For me is not clear the meaning of the following sentence</p>                                                                                                                                                                                                                                | <p>Line 22.<br/>"<b>This product degrades</b>".</p> <p>Line 32<br/>The market of kilishi is thus promising in the future and will be <b>a source of incomes for the saving in this area of Africa.</b></p> <p>Lines 33-34<br/>I prefer to use <math>\theta</math> for temperature on the Celsius scale and T for temperature on the absolute scale.</p>                                                                                                                                                                                   |



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|                                 | <p>"will be the limit of the product water content at the end of the drying"</p> <p>Lines 47-58</p> <p>The two paragraphs could be merged into one. Sorption isotherms of kilishi is mentioned twice.</p> <p>Line 64</p> <p>I think "uneasy" is not the right word.</p> <p>Lines 74-75</p> <p>"Moreover, the GAB model takes into account the temperature effect"</p> <p>I think BET can also take into account the temperature effect.</p> | <p>Line 38</p> <p>The sorption isotherm enables the calculation of the equilibrium water content <math>X_{eq}</math> depending on air conditions. This parameter will be the limit of the product water content at the end of the drying</p> <p>Lines 47-58</p> <p>Those two paragraphs are merged into one.</p> <p>Line 64</p> <p>"not easy"</p> <p>Lines 74-75</p> <p>It is true, but generally in the range of the water activities lower than 0,6 for the biological products</p> |
| <b><u>Optional</u></b> comments | <p>It seems to me that using the same samples for determining sorption isotherms at different temperatures is not an standard method. There can be errors when manipulating the samples and they can accumulate each time they are weighted. Can you say something about it?</p> <p>I think the results and bibliography are OK. However, english should be improved.</p>                                                                   | <p>It true. But the advantage of using the same samples is the certitude to have the same composition of product. ¶We took precautions to minimize the errors when manipulating the samples.</p>                                                                                                                                                                                                                                                                                      |