



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">British Journal of Applied Science &amp; Technology</a>                                                               |
| Manuscript Number:       | 2015_BJAST_17834                                                                                                                  |
| Title of the Manuscript: | MEASUREMENT OF THERMAL CONDUCTIVITY AND SPECIFIC HEAT CAPACITY OF THREE MAJOR GEOMORPHOLOGICAL UNITS IN AKWA IBOM STATE, NIGERIA. |
| Type of the 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:

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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)                       |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>This article deals with measurement of specific heat and thermal conductivity for three samples from three different lands. The article is interesting but the presentation of results needs to be improved.</p> <p><b>1. Introduction</b><br/>Authors describe conduction as the results of molecular collisions. Electron motion also enhances conductive heat transfer.</p> <p><b>2. Theory</b><br/>The solution of equation (1) is expressed for the case of a semi-infinite medium. Please mention this point and indicate the temporal validity of the solution (defined for long times).</p> <p><b>3. Sample collection and preparation</b><br/>The humidity is important regarding thermal properties. Could the authors provide the humidity concentration in the samples?</p> | <p><b>Noted.</b></p> <p><b>1. Corrected. Few things also added.</b></p> <p><b>2. The Equation has been re-simplified by using energy balance equation for more explanation.</b></p> <p><b>3. Noted</b></p> |



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|                                         | <p>4. Measurement of specific heat capacity and thermal conductivity</p> <p>4.1. For the Lee's disc method, authors are requested to give more information: expression giving k, thickness of sample, temperature difference across the sample, cooling rate of the metal disc...</p> <p>4.2. What is the exactness (uncertainty) on the measured results?</p> <p>4.3. The temperature ranges of the specific heats and conductivities have to be indicated.</p> <p>4.4. The conclusion regarding dependency between both the variables C and k should be clearer.</p> <p><b>5. Conclusions</b></p> <p>5.1. First paragraph commenting equation 7 should be put at the end of the theory section.</p> <p>5.2. Potential applications for these materials should be given.</p> | <p>4.1 it has been added</p> <p>4.2 the results is shown in table 4 and 5.</p> <p>4.3 it has been show in the table 2.</p> <p>4.4 noted</p> <p>5.1 corrected.</p> <p>5.2 noted and added.</p> |
| <b><u>Minor</u></b> REVISION comments   | <p>Please check and improve the text:</p> <ul style="list-style-type: none"> <li>- line 16: Soil is the uppermost...</li> <li>- line 87: K is an absolute unit</li> </ul> <p>Table 2: the weight could be written in mg in this case. Temperature headings are illegible.</p> <p>Table 4: the headings are illegible.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>All has been corrected.</p>                                                                                                                                                                |
| <b><u>Optional/General</u></b> comments | <p>The outline of the paper could be improved.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Noted/ corrected.</p>                                                                                                                                                                      |