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Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2014_BJAST_15154
Title of the Manuscript:	Proximate and Ultimate Analyses of Biocoal Briquettes of Nigerian's Ogboyaga and Okaba Sub-bituminous Coal
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:

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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	I am of the strongest opinion that the result of the proximate analysis for the pure and mixed materials should be presented on one table or graph to allow for easy comparison. This should also be done for the result of the ultimate analysis.	I am looking at the effects of blending on the individual raw coal deposits; hence putting the proximate and ultimate analyses on their own may not be adequate for analysis. However, if the author insists, I could put the tables of proximate and ultimate if the volume of the write up will not be too much.
Minor REVISION comments	Lines 11 -14 should be corrected to read as follows: the optimum biomass composition for use as composite domestic fuel. Coal samples from 2 coal mines and sites of Ogboyaga and Okaba in Kogi state of Nigeria were collected. The samples were pulverized and blended with sawdust at various constituent ratios of 0:100, 10:90, 20:80, 30:70, 40:60, 50:50 and 100:0 (Sawdust: Coal). Please, the authors should provide a conclusion for the abstract. Lines 30-33 could be modify to read – “..... blending coal and biomass gives rise to biocoal briquettes which has better fuel and	Corrected. Modified



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	environmental properties compared to the conventional coal briquettes[3]. Most of the coal deposits in Nigeria have not been utilized well due to availability of petroleum. Some of these coals are now being investigated and densified with biomass to produce biocoal briquettes [6]”. Lines 51-53 could be modified to read – “The present research is aimed at investigating the properties of biocoal briquettes for varying proportions of sawdust with the aim of determining the optimum composition using Nigeria’s Ogboyaga and Okaba coal deposits.” Line 58 could be modified to read – “.....Coal samples were collected from identified and accessed coal mine sites of Ogboyoga -Odu and Okaba in Kogi State in North Central Nigeria. Sawdust was collected from a saw mill in Akure, South-west Nigeria while starch used as binder was gotten from an open market. Calcium.....” Section 2.2 (lines 64-67) should be deleted since it is redundant. Line 71 – “..... sawdust sample was screened of impurities like sand, metallic objects and chips of wood”. How was this done?	Modified Modified Deleted By sieving through 10mm sieve size Modified
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	Line 72 & 73 could be modified to read – “.....Six samples each from the two coal samples were blended with sawdust at various mixing percentages of 0%,10%, 20%, 30%, 40% and 50% while 100% sawdust was also prepared for comparison”. Line 80 could be modified to read – “.....under a total load of 57.4N. Biocoal briquettes of different mixing proportions as well as pure coal and sawdust.....” Lines 87 & 88 - Please, authors should provide source/reference for the statement; “The fixed carbon was obtained by subtracting the percentage of ash, moisture content and volatile matter from 100.....” Section 2.5 Calorific Value determination Please, authors must provide the standard used for the determination of the calorific value. I also think that there were unnecessary over elaboration of the experimental procedure. It should be summarized. Line 111. Please, authors must define the symbols in equation (1).	Modified Done Okay, done Done Done
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	Section 2.6, Lines 119 & 120 Please, authors must provide source, reference for the statement; “The oxygen was obtained by subtracting the percentage of ash, carbon, hydrogen, nitrogen and sulphur from 100”. Line 118, Is ash content proximate analysis or ultimate analysis? Section 2.8, line 139 could be modified to read – “The nitrogen content was determined using ASTM- D3179 standard”. Section 2.9: Determination of Sulphur by the Eschka Method – The experimental procedure is too long. I suggest it is summarized. Line 175, Equation (3) – “S_t” should be written in full and the units provided. Section 3.0, Result and discussion By the structure of the write-up there should be a sub-heading “Results, numbered 3.1” and “Discussion, numbered 3.2” after Result and discussion.	Both(even though the ash content is same for proximate and ultimate but it has to reflect in both analyses). Modified Done Done Effectuated Effectuated
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	Line 196-198. Figure 3 shows the relationship not effect. This is wide spread throughout the manuscript including the titles of the graphs and needs to be corrected. Additionally, was the process of briquetting a variable? Please, Check lines 196 and 197. This is also wide spread in the manuscript. Please, Author(s) must check. The result of ash content appears in both tables 1 &2. Generally, the authors must improve their table titles. Figure 3 should have a legend Please, the authors should check. The discussions are full of grammatical errors.	It is not a variable but it has effect on the particle size. The compactment or densification has added advantage on loose particle size, hence, the effect of briquetting. Yes, it should appear in both proximate and ultimate. Effectuated effectuated Corrected Effectuated
<u>Optional/General</u> comments	The paper is relevant. However, authors need to work on the grammer and address the issues raised.	Addressed and corrected the relevant portions. Thank you.