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PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	**2013_BJAST_4668**
Title of the Manuscript:	**Carcinogens: Polycyclic Aromatic Hydrocarbons and Heavy Metal Content in Some Locally Processed Foods in South Eastern Nigeria**
Type of the Article	**Research paper**

General guideline for Peer Review process is available in this link:
(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.

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PART 2: 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	-It is well known that high temperature cooking of meats produces plenty of heterocyclic and aromatic amines all of which are potent carcinogens as well. However, the authors do not measure any carcinogens of this class of compounds nor allude to them anywhere in the manuscript (in the Introduction, Discussion etc. and provide some justification as to why this obvious class car was not measured). -The authors claim that most of the PAHs are generated due to the manner in which the meats are processed (heating/high temperature cooking). This certainly seems reasonable. However, having said that it would have been informative to provide information on the 'basal' levels of these compounds, in unprocessed foods (prior to subjecting them to any form of heat treatment). This would strengthen the argument that the higher levels of PAHs and metals in processed foods are a result of heat treatment. They authors employ sensitive techniques such as GC-FID and AAS to examine the levels of PAHs and heavy metals, respectively. Information from such studies would be helpful to local health risk	The review has made important observation but this work measured PAH and heavy metals only…..the content of heterocyclic and aromatic amines may be measured in other studies. This comment on the base line content is noted …..however the results obtained from the present study will precipitate further study which will encompass these observations.

	assessment and regulatory personnel alike. It could aid in better educating the local population about the potential health risks of certain classes of locally available/processed foods along with ways to potentially mitigate the levels of 'cooking-induced' carcinogens, by modifying cooking and/or dietary practices. Here are some general comments about the study: • The fact that long processed (LP) foods possess higher levels of PAHs relative to fresh processed (FP) foods seems rather obvious and not a 'novel' finding. The study only helps to buttress an obvious and well-known argument by providing specific numbers. • It is well known that high temperature cooking of meats produces plenty of heterocyclic and aromatic amines all of which are potent carcinogens as well. However, the authors do not measure any carcinogens of this class of compounds nor allude to them anywhere in the manuscript (in the Introduction, Discussion etc. and provide some justification as to why this obvious class car was not measured.) • The authors claim that most of the PAHs are generated due to the manner in which the meats are processed (heating/high temperature cooking). This seems reasonable. However, having said that it	

	would have been informative to provide information on the 'basal' levels of these compounds, in unprocessed foods as well (prior to subjecting them to any form of heat treatment). This would strengthen the argument that the higher levels of PAHs and metals in processed foods are a result of heat treatment. • Suggestion: In the Tables it might be useful to highlight (say by underlining) specific classes of potent carcinogens or heavy metals whose levels appear to be enhanced in particular classes of food (eg: seafood vs. other classes of meat) or by particular cooking methods. • The IARC classification of some carcinogens such as benzo(a)pyrene has changed. It has been elevated to Group 1A. Please check for such changes in case of the other carcinogens as well. • There appear to be minor grammatical or formatting errors throughout the manuscript. Some of these are indicated in the PDF version. Please fix these and other errors as well.	Observation taken Observation taken

Minor REVISION comments	-The IARC classification of some carcinogens such as benzo(a)pyrene has changed. It has been elevated to Group 1A. Please check for such changes in case of the other carcinogens as well. -There appear to be minor grammatical or formatting errors throughout the manuscript. Some of these are indicated in the PDF version. Please fix these and other errors as well.	
Optional/General comments	Suggestion: In the Tables it might be useful to highlight (say by underlining) specific classes of potent carcinogens or heavy metals whose levels appear to be enhanced in particular classes of food (eg: seafood vs. other classes of meat) or by particular cooking methods.	