



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	Ms_ACSJ_26972
Title of the Manuscript:	ANALYSIS OF EDIBLE CLAY FROM ENYIGBA IN EBONYI STATE, NIGERIA, FOR ESSENTIAL NUTRIENT METALLIC ELEMENTS AND ANALYSIS OF TISSUES AND ORGANS OF RABBITS FOR THE CLAY CONSTITUENTS, FOLLOWING ORAL ADMINISTRATION OF THE CLAY
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>)



SDI Review Form 1.6

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	MATERIALS AND METHODS: Section "Sample Area And Sample Collection": It is required better describe about the soil in the study area. I suggest adding a figure of the area, signaling the collection points through their geographic coordinates. Section "Preparation of clay sample for analysis": the sample preparation procedure is well described, requiring only inform the purity of the reagent and analytical solutions. The use of aqua regia is well established for soil sample opening. However, the authors must present a table of AAS experimental conditions for the determination of Na, K, Ca and Mg in terms of: flow of gas / gas type / opening slot / type of lamp (Hollow Cathode Lamp - HCL or electric discharge lamp - EDL cathode) and whether spectroscopic buffer was used. RESULTS AND DISCUSSION: Section "Concentrations of metals in edible tissues and blood": for whole elements analyzed the concentration of reducing components in tissues were found. In this sense, it is suggested that the authors conduct a parallel study of physicochemical and molecular characterization of the edible clay, since this sample can present a number of chelant compounds	NOTED AND EFFECTED NOTED AND EFFECTED NOTED AND EFFECTED NOTED AND EFFECTED

	that are 'abducting' these metallic elements along the digestive tract and subsequent excretion.	
	Section "Elimination rate constant and half lives of essential metallic nutrient elements from edible clay in various tissues": The elimination constant values are scattering data. Thus, authors must remake the figures 1, 2, 3 and 4 without the lines. Moreover, the tables provide enough data for that elimination analysis of metallic elements. Section "The Half Life ($t_{1/2}$) Of Elimination Of Metals Present In The Edible Clay In The Various Organs And Tissues Of Treated Rabbits": The graphics and results of the half-life complement the observations made in section "Concentrations of metals in edible tissues and blood". However, I disagree with the authors in reporting that there is accumulation of the metallic elements, especially that takes place in the liver. Authors should revise this interpretation, as does not correspond to the results presented throughout the previous sections. Ethical issue: Yes. There are animal experiments. Authors should submit the authorization number for animal experiments of the responsible agency. Plagiarism issue: There is the suspicion of self-plagiarism. There are a number of results that have been published by the following authors on these journals: OGAH, S. P. I.; IKELLE, I. I. The determination of the amount of some heavy metals in edible clay of Enygba village in Abakaliki Ebonyi State, Nigeria. Der Pharma Chemica, v. 7, n. 11, p. 264-267, 2015.	NOTED AND EFFECTED
		NOTED AND EFFECTED
		NOTED AND EFFECTED
		NOTED AND EFFECTED



SDI Review Form 1.6

	OGAH, S. P. I.; IKELLE, I. I.; NGELE, S. O.; ELOM, N. I. Comparative study of the brain and heart of rabbits after administration of edible clay for heavy metals. Der Pharma Chemica, v. 7, n. 12, p. 258-263, 2015. OGAH, S. P. I.; IKELLE, I. I. The analysis of the kidney and blood of rabbits for some metals following the administration of edible clay. Journal of Chemical and Pharmaceutical Research, v. 7, n. 11 p. 406-410, 2015	
--	--	--



SDI Review Form 1.6

<u>Minor</u> REVISION comments	INTRODUCTION: In general, the manuscript is well written. Presents reports about the consumption of clay on various parts of the world nutritional and therapeutic purposes. However, it is not clear the limitations of the use of clay as a mineral source, as the authors mention a few events of food poisoning related to the ingestion of clay. In this sense, it is necessary that the authors do more quotes work and highlight the need to monitor the use of clay as a mineral supplement in the study region, highlighting the cultural, economic and social aspects. Finally, authors should end the introduction presenting the main objective of the present study. MATERIALS AND METHODS: Standardize the volumetric units. I suggest the use of 'mL' instead of 'cm³'.	NOTED AND EFFECTED
<u>Optional/General</u> comments	The manuscript brings interesting results about the nutritional aspects of the edible clay that can be directly related to malnutrition events that are occurring in the study area. In this sense is suggested, as future work, the authors perform chemical speciation studies to determine the bioavailability of the investigated metals and other macro and micro nutrients required for the human diet. Furthermore, in order to solve some problems with plagiarism, the authors should properly cite those studies conducted and published in other journals as cited below.	NOTED AND EFFECTED