Review of: "Evaluation of Ambient Air Quality Levels at Various Locations within Lead City University, Ibadan"

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Potential competing interests: No potential competing interests to declare.

Page 1 – Abstract

…..over a two-week period. *This period should be specified if it has climate specific parameters! How representative is this period to whole year?*

Page 2 – Introduction

…..nitrogen dioxide (NO2), sulfur dioxide (SO2), carbon monoxide (CO), ozone (O3),…..*Correct the lower index for chemical compounds.*

Page 3 – Introduction

Carbon monoxide (CO_2) is a toxic gas that can cause headaches, dizziness, and nausea. It is produced by the incomplete combustion of fossil fuels, such as in vehicles and generators. ~~Ozone is a reactive gas that can cause respiratory problems and aggravate asthma. It is formed when nitrogen oxides and volatile organic compounds (VOCs) react in the presence of sunlight.~~

Correct the carbon monoxide (CO) / carbon dioxide (CO_2) – correct text for each chemical compounds!!!! Correct text for ozone – the information is doubled – see text above.

Lead (Pb) is a heavy metal that can cause neurological and developmental problems in children. It comes from sources such as leaded gasoline and industrial emissions.

Divide the text into 2 paragraphs. Is it true about gasoline? In Europe the lead is not used in gasoline for decades.

Volatile organic compounds (VOCs) are organic chemicals that can have both short- and long-term health effects, such as eye, nose, and throat irritation, headaches, and damage to the liver, kidneys, and central nervous system. They come from sources such as paints, solvents, and cleaning products (World Health Organization. (2019).

Also some building materials used in indoor environments may be source of VOC as adhesive from laminated wood, etc..

Page 5 – 2.1 Study area

Specify the area of Lead City University – m^2 or similar information. Give percentage of build and open areas. Give number of people (students, staff, etc.) attended the University.

Lead City University occupies a sizable campus with well-maintained facilities. The campus encompasses various academic buildings, administrative offices, lecture halls, laboratories, libraries, and student hostels. ~~The university offers a wide range of undergraduate and postgraduate programs across multiple disciplines, including arts, sciences, social sciences, management sciences, and engineering.~~

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~~The campus is designed to provide a conducive learning environment for students. It incorporates green spaces, walkways, and recreational areas, fostering a pleasant atmosphere. The university also prioritizes the provision of modern amenities and resources to support teaching, research, and student life.~~

Delete these sentence – this is scientific paper not advertisement of University life.

Page 6 – 2.2.1 Locations

Include maps with indication of each locality in the university area.

Page 7 – 2.4 Equipment used

Specify the type of air quality detector – volume of analysed air ……..and other characteristics.

Page 8 – 2.7 Parameters measured

Doubled information – delete or rewrite into clause 2.3

The same for 2.7.1 Procedure for parameter´s measurement which double 2.2.4.

Page 8 – 2.7.2 Materials Required

From this clause keep only the first sentence from Preparation and move it to 2.2.5, all other text delete because the information is very trivial and double the previous text.

Page 9

From this page keep only the sentence from clause 2.7.4 b and move it to clause 2.2.4 and clause 2.8 which moved to 2.2.5. All remaining text is trivial and well known to people which focus on this topic.

Page 10

Delete the first bullet and note.

Sentence from 2.8.1 move to 2.2.5.

Page 12 Table 1

Give the map of localities here of on page before. Indicate which localities are outdoor and indoor – it is evident from text

but in this Table it should be evident from the first look. Given new columns or use different colors.

Tables 2 – 16

*The same comments – change the title because in Table are also other parameters than pollution concentration. Add units for each parameters, especially for pollutions. Delete the penultimate row in each table – this row does not any sence. Change the indication TOTAL in the last row for AVERAGE – I think it is average!!!!!! There is not clear what means S/N and numbers 1 to 11 in each Table (numbers of measurements ? – in such case give explanation to time or another characteristcs).*Table 17 and 18*Add units for each parameters, especially for pollutions. In text there is no discussion to extreme values – reason, … In Tables 2 – 16 the values are given as integer but in these two Tables are given decimal numbers – correct for integer (average is usually calculate as decimal numbers, but it does give sence). The values in Table 18 are very stange.*Figure 1*Change the title because in Figure are also other parameters than pollution concentration. In Figure title correct the lower index for chemical formula.*Figure 2*In Figure title correct the lower index for chemical formula.*

Page 22-23 summary /Conclusion

Give some correlation between typical indoor/outdoor parameters not only in large text but in Table of graph. Give specific value for acceptable ranges for all measured parameters.