

Review of: "Assessment of Quality of drinking waterbased on the water quality index method in Hawassa Zuria Woreda, Sidama Regional State, Ethiopia"

Ayejoto Daniel¹

¹ Texas Christian University

Potential competing interests: No potential competing interests to declare.

General Remarks:

1. PL Double-check and improve your English.
2. The research title/topic should be revised to include a clear description of the study's goals.
3. Make sure all references are correct and numbered (one by one in the text and in the list, please).

Abstract:

1. An abstract is often presented separately from the article, so it must be able to stand alone. Hence the problem statement, aim, novelty, and results of the study have all been included.
2. Provide numerical data in the significant findings to highlight the efficiency of the new process in the abstract section.
3. The aim of the study could come after the literature gap and before the theory.

Introduction

1. The introduction should be clarified in terms of uniqueness and advantage what is the novelty of this work over the previous related work.
2. This section should be improved and supported by more and recent references. The authors must clearly demonstrate the relevance of the subject and the problem, justify the literature gap, show the main results and the originality of the contribution.
3. There are recent works on water quality that need to be cited in the body of the introduction. Here are some:

Omeka, M. E., & Egbueri, J. C. (2022). Hydrogeochemical assessment and health-related risks due to toxic element ingestion and dermal contact within the Nnewi-Awka urban areas, Nigeria. *Environmental Geochemistry and Health*, 1-29.

Ajloon, F. H., Dong, X., Ayejoto, D. A., Ayeni, E. A., & Sabo, M. Y. (2022). Seasonal assessment of water quality and water quality index (WQI) variations, in Jiangsu Kunshan Tianfu National Wetland Park, China. *International Journal of Environmental Analytical Chemistry*, 1-20.

Egbueri, J. C., Agbasi, J. C., Ayejoto, D. A., Khan, M. I., & Khan, M. Y. A. (2023). Extent of anthropogenic influence on

groundwater quality and human health-related risks: an integrated assessment based on selected physicochemical characteristics. *Geocarto International*, (just-accepted), 1-32.

Ayejoto, D. A., Agbasi, J. C., Egbueri, J. C., & Abba, S. I. (2023). Evaluation of oral and dermal health risk exposures of contaminants in groundwater resources for nine age groups in two densely populated districts, Nigeria. *Heliyon*, 9(4).

Egbueri, J. C., Unigwe, C. O., Omeke, M. E., & Ayejoto, D. A. (2021). Urban groundwater quality assessment using pollution indicators and multivariate statistical tools: a case study in southeast Nigeria. *International journal of environmental analytical chemistry*, 1-27.

Ayejoto, D. A., Agbasi, J. C., Egbueri, J. C., & Echefu, K. I. (2022). Assessment of oral and dermal health risk exposures associated with contaminated water resources: an update in Ojoto area, southeast Nigeria. *International Journal of Environmental Analytical Chemistry*, 1-21.

1. The authors should describe the importance of their research more clearly.
2. The references cited lack articles on water quality from last year. So, add more references (2017-2021) to support the author's points of view. Last paragraph must be an outline of the complete study showing the needed and targets assumed in the paper. Hence needs minor revision. It also suggestive to add latest article in references.
3. I would recommend that the authors rewrite the study's objectives at the end of the Introduction to emphasize the article's uniqueness and importance in comparison to other existing articles.
4. More justifications and supporting references are required in the Introduction section.

Materials and Methods

1. The authors should provide some information on the quality assurance (QA) and quality control (QA) of the analysis.
2. In the physicochemical parameters, please elaborate more on these parameters (heavy metals, ions) you analyzed in this study and their concentrations compare with the standard/recommended limits.
3. In terms of materials and methods, each technique applied should appear as a subpoint of this chapter, so it would be easier to follow the results as well.

Results and Conclusion:

1. There are a few flaws in the research. The most significant of these is that the outcomes of the experimental investigation have not been matched to those found in the literature. In this regard, a significant adjustment in this study is required.
2. Please classify the heavy metal in terms of order of concentrations to know which of them poses high risk.
3. If the abbreviation is mentioned first, the complete abbreviation can be displayed. Check it out and make the necessary changes.
4. Do you consider that the topic is relevant in the research area and if so, what is it? In case of conclusions, you could explain what does it add to the subject area compared to other published material?

Additional Comments:

1. Based on the contents of the study, the authors should provide a section demonstrating "Perspectives and Prospects" on this research subject (highlighting future priority research directions).
2. To increase the quality of both the language and the organization, a native English speaker should proofread it.