

Peer Review

Review of: "Polycyclic Aromatic Hydrocarbons in Brazilian Food: A Critical Review of Levels, Human Health Risk Assessment, and Potential Gaps in the Recent Literature"

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Specific Comments

Manuscript ID: doi.org/10.32388/9UA4UF

Title: Advancements in Polycyclic Aromatic Hydrocarbons Pollution Treatment Technologies for Soil.

The manuscript offers valuable insights into environmental pollution but requires significant revisions before it can be considered for publication in the Journal of Qeios. The manuscript should be organized well, and the current format and available data are not suitable for publication. Below are detailed comments and suggestions for improvement:

General Issues:

- The manuscript contains numerous typographical and grammatical errors.
- What is the novelty of the manuscript?

Abstract:

- The presentation is good, but refresh this section for better clarity.

Introduction:

- The introduction is not well-organized and needs rephrasing.
- I found a few references in this section, and you need to add more recent citations.
- There is a lack of citations in the first paragraph.
- These compounds have been extensively documented for their adverse biological effects, including carcinogenic, mutagenic, and teratogenic properties [1][2][3][4]. Remove such clusters of citations in the text and arrange them appropriately within the text.
- Provide the main aims of the study at the end of the introduction. This paragraph is too short.

Search strategy

- Change this title according to the text. For example, Methodology.

Results

- Results are generally used in research articles, but I found this as a review article. How did you get the results?
- This section is too long and should be split into relevant subtopics instead of results and discussion.
- I would like to suggest that you refresh this section.

Role of Disparities in Research Infrastructure Across the States, Food Regulation in Brazil, PAH Studies, and Human Health Risk Characterization

- These sections are lengthy, and readers may find it tedious to follow your article, so make them concise or split into relevant subtopics. If the same happens to the other topics, please follow the same rule.

Table 2. Levels of reported polycyclic aromatic hydrocarbons in different food samples from all Brazilian regions in the last ten years. It is not clear, and many cells are empty. For example, Various Brazilian regions and Cocoa Beans (ug/kg)/ Merge the consequent cells for better clarity.

- This table is too long. Apply the same to the other tables.
- Follow and add the following in the main manuscript.

1. Performance and potential of bacterial biodegradation of polycyclic aromatic hydrocarbons from micellar solutions. *Environmental Technology Reviews*. <https://doi.org/10.1080/21622515.2021.19890>.
2. 2.
Advances in biosorption of polycyclic aromatic hydrocarbons from aqueous solutions using natural biosorbents. *ASCE's Journal of Environmental Engineering*, 10.1061/(ASCE)EE.1943-7870.000185.
3. Biodegradation and kinetics of phenanthrene and pyrene in the presence of non-ionic surfactants by *Arthrobacter* strain Sphe3, *Water, Air and Soil Pollution*, 224 (2013), 1426. <https://doi.org/10.1007/s11270-012-1426-8>.

Conclusion: This section should cover the findings of the study.

References: Check all references to ensure they comply with the journal's format and add the recent publications.

Overall Presentation: The results are promising, but the presentation needs to be more formal and organized. The current format is not suitable for publication, and thorough revision is necessary.

I hope these comments help improve the manuscript to meet the standards for publication.

Declarations

Potential competing interests: No potential competing interests to declare.