Peer Review Report

Review Report on Stability in biosensors derived from Domain Map Analysis of bibliometric data

Systematic Review, Acta Biochim. Pol.

Reviewer: Alexandra Virginia Bounegru
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EVALUATION

Q 1 **Please list your revision requests for the authors and provide your detailed comments, including highlighting limitations and strengths of the study and evaluating the validity of the results, and data interpretation. If you have additional comments based on Q2 and Q3 you can add them as well.**

The author employed advanced methods of analysis and visualization to compile trends and patterns in scientific literature, focusing on relevant information for biosensor stability. Key-based clustering was applied to identify the most significant publications and analyze their evolution over time. By utilizing the CiteSpace tool, the author conducted an analysis of cooperation and collaboration networks among countries in the field of biosensors. Additionally, emphasis was placed on identifying scientific leaders based on their country of origin. This approach involved an advanced analysis method based on the frequency of keywords in titles and abstracts, providing a detailed perspective on current trends and scientific networks in this field. The idea of the article is innovative and highly useful but there are also more oversights. I have provided some suggestions below.

1. The author can provide a more concise presentation of the CiteSpace tool, focusing on its role as a specialized Java application for bibliometric analysis. Emphasis should be placed on its capability to identify trends and patterns in the scientific literature related to biosensor stability. A shorter and more direct description could enhance clarity and accessibility for the reader.
2. Section 3.1. How were these keywords, for which clusters were created, chosen? Some of them may not necessarily be related to biosensor stability. Were the words simply chosen randomly? Additionally, it would be helpful to enhance the diagram (Fig 2) so that the authors and keywords are more easily visible and highlighted.
3. Fig 3 is not clear at all. Improve the resolution and enlarge the text.
4. In Fig 4, where is the count of citations for these 4 publications?
5. However, it is understandable that a paper from 2004 may have more citations than one from 2022; this does not necessarily mean that the method used is more efficient. A paper from 2022 could cite the one from 2004, but it is highly likely that the biosensor stability has been improved. Why is this comparison so relevant? Moreover, when writing an article, it is recommended to consider only articles from the last 5 years to be informed about the latest methods. Wouldn't a comparison between articles from the same year be more relevant? Or bring up this idea as well?
6. The Discussion section is more of a Conclusions section. Modify and reassess the sections.
7. There is no critical approach to this application, such as its limitations or possibilities for improving the use of this tool. It is clear that it has significant potential, but there are certainly some inconsistencies or irrelevancies. Address this topic as well. We are very interested in interpretations of these results and the relevance of the application of the software, being a Biochemistry journal.
8. The references are quite old, probably exactly those highlighted by the tool.
9. Improve the manuscript with clear and personal interpretations, especially regarding the potential of the software in the future or research perspectives.

Q 2 **Check List**

a. Is the quality of the figures and tables satisfactory?

No.

b. Does the reference list cover the relevant literature adequately and in an unbiased manner?
Yes.

c. If the manuscript includes original data, are the methods sufficiently documented to allow replication studies?
Yes.

d. Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)
Yes.

e. Is a statistician required to evaluate this study?
Yes.

QUALITY ASSESSMENT

Q 3	Rigor	
Q 4	Quality of the writing	
Q 5	Overall quality of the content	
Q 6	Interest to a general audience