

Meta-Review of Scholarly Publications on Biosensors: A Bibliometric Study

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Abstract : With over 70,000 scholarly publications on the topic of biosensors, an overview of the field has become a challenge. To facilitate, there are currently over 700 expert-reviews of publications on biosensors and related topics. This study focuses on these review papers in order to provide a Meta-Review of the area. This paper provides a statistical analysis and overview of biosensor-related review papers. Comprehensive searches are conducted in the Web of Science, and PubMed databases and the resulting empirical material are analyzed using bibliometric methods and tools. The study finds that the biosensor-related review papers can be categorized in five related subgroups, broadly denoted by (i) properties of materials and particles, (ii) analysis and indicators, (iii) diagnostics, (iv) pollutant and analytical devices, and (v) treatment/ application. For an easy and clear access to the findings visualization of clusters and networks of connections are presented. The study includes a temporal dimension and identifies the trends over the years with an emphasis on the most recent developments. This paper provides useful insights for those who wish to form a better understanding of the research trends in the area of biosensors.

Keywords : bibliometrics, biosensors, meta-review, statistical analysis, trends visualization

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