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A BIBLIOMETRIC ANALYSIS ON HOW ORGANIC CHEMISTRY EDUCATION RESEARCH HAS EVOLVED COLLABORATIVELY OVER TIME

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Abstract

Organic chemistry is widely regarded as a challenging topic; generally, students prefer to memorize rather than critically analyze concepts resulting in meaningful learning. In recent years, the curriculum of the organic chemistry subject has been reshaped and redefined to overcome the difficulties that students often experience while trying to understand the syllabus. The goal of this research is to illustrate the organic chemistry education's current trends, which adopted the bibliometric analysis method. A holistic review was carried out on organic chemistry education articles obtained from the Scopus database between the year 2011 up to 2020. Based on the keywords of "organic chemistry" and "education", the study has accumulated 1056 papers for further evaluation. Various tools have been implemented, for example, Microsoft Excel was used to conduct the frequency analysis, VOSviewer for data visualization, as well as Harzing's Publish or Perish in regard to citation metrics and analysis. Bibliometric indicators were employed to report the findings in this study, for instance, language, subject area, research trends by year of publication, top countries, top influential institution, active source title, citation analysis, authorship analysis and keywords analysis. The results show an increasing growth rate of literature on organic chemistry education from 2011 until 2020. The United States was the top contributor to organic chemistry education research, followed by Canada. Healthy collaboration exists across researchers, countries, and institutions. This involvement of organic chemistry education reflects a rising emphasis on Science, Technology, Engineering and Mathematics (STEM) discipline incorporated into the 21st-century curriculum to prepare the desired workforce. © 2022 Science Education Study Program FMIPA UNNES Semarang.

Author Keywords

bibliometrics; citation analysis; organic chemistry education; Scopus database

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