

Executive Summary

Importance of this study

In Science and particularly in Chemistry there is no such comprehensive bibliometric study available **SO FAR**, which can give any idea about the share of ‘Green Chemistry’ in Indian Chemistry journals. That’s why I found this topic of proposal quite apt and important. I am sure, it will be a unique type of research and very interesting results are anticipated from it.

Based on the topics mentioned by NSTMIS, DST in the invitation for proposals, we found a strong need of this study. The need of Green Chemistry and its systematic implementation and study is very important for the students, research scholars and faculty actively involved in research.

Increasing industrialization is a big threat to the sustainability of the environment. In such circumstances, such studies will motivate researchers and scientists to carry out their research as per the ‘12 principals of the Green Chemistry’ and also motivate them to publish their finding in good research journals.

Ultimately, its all related with the Sustainability of environment, the growth and well-being of the mankind.

Objectives of the Study

The following objectives will be addressed in the present study:

1. To determine the geographical distributions of contributions in the journal
2. To find out Authorship Pattern
3. To find out the degree of Collaboration
4. To find out volume wise contributions
5. To find out the statistics of distributions in various fields of ‘Green Chemistry’
6. To find out the statistics of distributions of 12 Principles of ‘Green Chemistry’
7. To find out the author self-citation ratio
8. To display volume wise dispersion of references

Methodology Details

- The Indian Journals published during **1999-2020** will be taken for this study, where pure as well as applied chemistry is involved. Since, the beginning of the ‘Green Chemistry’

(i.e. 1999) till today, whatever published in Indian journals will be covered in this study to find out the share of 'Green Chemistry' on the research papers published so far.

- The details regarding each published article such as title of the article, number of authors, their institutional affiliations and addresses, number of references with list, page number, number of tables and figures etc., were recorded and analyzed for making observations.
- The data has been calculated and represented in tables. The citation analysis conducted by using various statistical tools and techniques.
- Data Analysis and Interpretation will be based on detailed study of :
 - Distribution of Contributions
 - Authorship Pattern
 - Degree of Collaboration
 - Subject wise distribution
 - Geographical Distribution
 - Citation Analysis
 - Distribution of Citation (Volume wise)
 - Average Citation per Paper (ACP)
 - Author Self- Citation Analysis

Results and Discussion

On the basis of the given methodology, the study carried out comprehensively and the details have been provided in a separate Chapter.

Policy Implications, Suggestions and Recommendations

1. Green Chemistry is a very new area of chemistry and relatively not much popular in higher educational institutions, therefore its required to first make people aware about this subject and its importance. Because this subject is directly related to our environment and its sustainability, which is a topic of the global concern.
2. Secondly, from this research it has been revealed that very less number of research papers have been published in Indian journals based on green chemistry. Reason is quite obvious and mentioned in point no. 1. To overcome this situation, we should motivate people to

pursue research in the area of green chemistry and encourage them to publish their work in good Indian journals. And, if they publish, it should be rightly appraised.

3. The beauty of such studies is , that it theoretical research based on your analytical skill and approach. Therefore, such bibliometric studies open a door of interdisciplinary research as well. Such type of work should be encouraged at institution level.
4. Library science may be a great helping department in such studies. We can encourage qualified librarians available in HEIs to be associated in such studies, so that they could also improve their profile and grow in their career.
5. HEIs can take help from NGOs working in the area of Environmental sustainability for better execution.
6. Such studies may be carried out on Institutional collaborative mode. So that resources could be optimizing utilized and all the stakeholders get benefited from the outcome of the study.
7. Last but not least, outcome of such studies must be published either in form of journal's articles or in form of brief book, as we published the present study from CRC Press Taylor & Francis, UK.