

## ORIGINAL ARTICLE

## A Bibliometric Study of Bulletin of Pure and Applied Science-C

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## ABSTRACT

The periodicals are the primary source of information and are an important medium for communication. They play a major role in communicating the latest research findings and publishing articles containing current development in any field of knowledge. The present bibliometric study is focused on an examination of 30 articles/research papers that were published in the Bulletin of Pure and Sciences: Section C, a good journal in chemistry by taking into consideration its last two-year issues in 02 volumes from 2022 to 2023. In addition to discussing the average length of an article and the number of references per article, the study also covers the year and volume-wise number of articles, authorship patterns, most productive authors of the journal, state-wise contribution of the articles, and foreign contribution to the journal.

## KEYWORDS

• Authorship pattern • Bibliometric Study • Chemistry

## INTRODUCTION

Bibliometrics is a relatively new branch of information science and has now become a standard tool of science policy and research management in the last few decades. Allen Prichard was the first who coined the term “bibliometrics,” which refers to the “application of mathematics and statistical methodologies to books and other media of communication” (Pitchard, 1969). This phrase bears similarities to the terms “Informetrics” by Nace (1979), “Librametry” by Ranganathan (1949), and

“Scientometrics” by Nalimov and Mulchenko (1969).

Since its inception, bibliometrics has evolved into a scientific method for evaluating literature that is used to quantitatively analyse academic resources and analyse publications for their significance and influence. Using both theoretical and applied research approaches as well as scholarship, bibliometricians and scholars employ bibliometrics to comprehend their particular literatures and to provide light on the development of disciplines and

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the phenomenon of scholarly communication (Hérubel, 1999). It makes possible to map out and increase the understanding of a specific topic of study by showing links between the major works, writers, organizations, themes, and other aspects of the subject matter.

## EARLIER STUDIES

Many bibliometric studies are conducted for different subjects by the library scientists. A summary of some of the significant bibliometric research that has been done in the domain of chemistry and related fields is given below.

Thanuskodi (2011) has studied the Indian Journal of Chemistry Section - B that has published 974 articles during the period of study. The study presents that the maximum number of articles (26.80 percent) were published in the year 2005. Further, the maximum number of contributors is joint authors with 90.25 percent. Similarly, most of the contributions are from India with 90.96 percent, while foreign contributions are very less. Majority of the authors preferred journals as the source of information providing the highest number of citations (45.23 percent) to them. However, the maximum numbers of contributions have the length of 5-8 pages with 38.20 percent.

Nagarkar (2014) has carried out a study on the bibliometric analysis of publications of the Chemistry Department of University of Pune from 1999-2012 using Web of Science as source of data collection. The study reveals that 30 faculty members have published 811 papers in 258 journals with 8948 citations. Most of the papers are published in peer-reviewed international journals having high impact factors. These are core journals in the field of chemistry being published in the countries like USA, UK and Germany, etc. The study also reveals that there is a continuous growth in publications. About 30 percent of the papers were published during 2010-2012. The average number of citations received per paper is 11.03. The highest number of citations (905) was received for 41 papers published in the Journal of Physical Chemistry-A. This study indicates that majority of the papers published are in the area of physical chemistry. Authorship pattern indicates that the highest number of citations is received for papers written by four authors in collaboration.

Salini *et al* (2014) have carried out a study on the bibliometric analysis of organic chemistry research activity by using the Web of Science as the source for collecting the data for the 2004 to 2013 with special emphasis on the Indian contribution. The Indian output is compared with that of world's leading countries using exergy that is an indicator which combines quantity and quality of publications. A three-dimensional approach combining quantity, quality and consistency is used for analyzing the performance of various institutions and authors. It is noted that organic chemistry research activity in India during 2004-2013 is equal to the world average and its growth pattern is positive and similar to the worldwide research growth. India ranks at the 9th position based on the Exergy (X), the performance indicator while USA, Germany and China occupy first, second and third positions.

Dhiman (2015) also examined "Bibliometrics of Ethnobotany," where he analyzed numerous publications relevant to various domains of bibliometrics, discussed the history of bibliometrics, and conducted citation analysis. Furthermore, based on the 20 years' worth of yearly volumes of the Ethnobotany journal, ranking lists for the most popular journals, authors, publications, etc. are listed in this work.

Gogoi (2016) has analyzed the references provided at the end of each article contributed in Indian Journal of Chemistry Section-B in its volume 52 of 2013. The results of the study indicate that a team authorship trend is seen as working rather than isolation. Most of the publications cited are articles in journals; the number of references in other kinds of documents such as books/monographs, conference proceedings, theses/dissertation etc. are small. Among the citations from journal literature, majority are from foreign journals though the journals of Indian origin have also extensively used by the researchers. The most frequently cited journal titles were Tetrahedron Letter, Journal of Medicinal Chemistry, and Journal of Organic Chemistry.

Sudhler and Dileepkumar (2022) have studied the scientometric profile of Biochemistry Research in India that is based on Web of Science. The paper examines 25,132 biochemistry research contributions of Indian scientists covered in the Web of Science for a period of 10 years (2004-2013). It was noted

that the biochemistry research is gradually growing and average annual growth rate was 36.84 percent. The solo research was not prevalent and team research is more in the Indian biochemistry research and 97.46 percent publications were contributed by multi- authors. It was observed that the value of co-authorship index was generally increasing and it varied from 93 to 105 during the period of study. Further, the journal articles contribute 89.43 percent of the total output followed by reviews (7.14 percent). Indian researchers collaborate largely with the researchers of USA (2.49 percent). The state wise geographical distribution shows that Tamil Nadu, Uttar Pradesh and Delhi lead the list and C. Abdul Jaleel (58) and L. Pai (37) are the top ranked authors in the field. 'Plos One' is the top ranked journal with 296 published papers during the study period. Academic institutions were noted to contribute more number of papers (50.26 percent) followed by research institutions (28.24 percent). However, the Lotka's law was not found fit with the observed author productivity distribution of Indian biochemistry research.

A citation-based bibliometric analysis was carried out by Dhiman and Rehman (2022) using two issues of 2020 of Bulletin of Pure and Applied Science Section-B (Botany). Current study shows that 97.20 percent of botanists publish their articles and research papers in English. The majority of authors (43.86 percent) prefer to write research papers and articles as a single author; however, 24.86 percent of authors prefer to write in collaboration. Additionally, as journals are cited more frequently from the 2001–2010 decade than books from the earlier 1981–1990 decade, they wish to highlight newer journals more frequently. However, they do also identify texts that are 41–50 years old.

Malge, Jaspal and Jadhav (2021) have conducted a bibliometric study for the different publication trends in waste water treatment by using Scopus and Web of Science Databases for the year 2000–2019. The results of the study show that a percentage distribution of 56.25 percent, 39.58 percent and 4.17% for research articles, review papers and conference publications is found in Scopus database, whereas 73.53 percent, 25.00 percent and 1.47 percent in Web of Science database, in the period ranging from 2000 to 2019. India shows

almost 35.29 percent of these publications whereas China 22.06 percent out of all the publications in the mentioned period.

Dhiman (2022) looked at the sources that the Pteridologists want to cite by carrying out a bibliometric study of the Indian Fern Journal, a groundbreaking journal in the botany subfield by selecting its volume 33 (2016) to number 37 (2020), from which data were used for the research. The study's findings indicate that while single authors contribute very little to the overall number of articles, two-authored publications (39), which account for 30.70 percent of the total, make the largest contribution. Additionally, the largest number of articles (58), or 45.66 percent of all articles, ends in the 06–10 range of the paper. The maximum range of the length of the papers with 11–15 articles, including 18.11 percent and 23 articles. However, the smallest number of articles that is one only, with a paper length range of 41–45. Furthermore, the majority of research papers and publications are completed within the 11–20 and 21–30 reference boundaries. They are total 28 and 33, and when the average is computed, it comes out to 61 out of 127 articles, or roughly 48.03 percent. Therefore, it can be argued that the bulk of the articles published in the journal are based on primary research; nonetheless, there are also a large number of papers that are of a review type.

Garg and Suresh Kumar (2022) have conducted a bibliometric analysis of the papers published in Indian Journal of Chemistry-Section-A (IJCA) and B (IJCB) during 2015–2020. Academic institutions from India and abroad were the major contributors to both the journals; however, their share varied in the two journals. India and China were the major contributors to IJCA, while India and Iran were the major contributors to IJCB. The value of CPP for Indian and foreign authored papers was almost the same for both the journals. The highest value of CPP among the prolific countries, was for Bangladesh for papers published in IJCA and no significant difference was observed in the values of CPP for prolific countries in IJCB. Islamic Azad University (Iran) contributed the highest number of papers in IJCA, while CSIR-Indian Institute of Chemical Technology (CSIR-IICT) topped the list of institutions in IJCB. Among the prolific institutions, CSIR-CSMCRI (Bhavnagar) had the highest value of CPP for

IJCA. In case of IJCB, Gujarat University and Maharaja Krishnakumarsinhji Bhavnagar University had the highest value of CPP. The proportion of uncited papers was slightly more in IJCA as compared to IJCB. Of the 12 highly cited papers in IJCA five papers were written in domestic collaboration and one in international collaboration, while of the nine highly cited papers in IJCB four papers were written in domestic collaboration and none in international collaboration.

## NEED FOR THE STUDY

The periodicals are essential resources for carrying out research and teaching in bibliometrics. The faculty, research scholars and the students depend heavily on these resources. But the costs of journals are more than books and number titles of journals are many and the collections also grow rapidly. Sometimes, they double in short period of time. So, in library proper policy should be adopted for journal collection. The bibliometric analysis will help in deciding titles of journals to be acquired, to continue or discontinue a subscription, to weed or not to weed a backset.

## OBJECTIVES OF THE STUDY

**The major objectives of the present study are:**

- To ascertain year wise and volume wise number of articles
- To ascertain authorship patterns of contribution
- To ascertain volume wise authorship pattern of contribution
- To ascertain year and volume wise degree of collaboration of authors
- To ascertain country wise foreign distribution of the articles
- To know the state wise distribution of the articles
- To know the most productive authors of the journal
- To ascertain the average length of the articles
- To ascertain the average number of references per article

## SOURCE JOURNAL FOR PRESENT STUDY

Bulletin of Pure and Applied Science Section

– C that is devoted to Chemistry subject is published by BPAS, Shahdara. Its frequency is half yearly and issues came out in the month of June and December every year. It is indexed in many of the abstracting journals, such as Google Scholar, GALE group, Indian Science Abstract, EBSCO Information Services, SCOPE Database, Indian Citation Index etc.

The major aim of this journal is to publish original research/ review papers/ book reviews/ reports on conferences/ seminars/ important events, news of interest/ information on forthcoming seminar/ books on the chemistry related aspects as shown in table 1.

**Table 1:** Various Subjects Covered in the Journal

Chemistry	Materials Science
Analytical Chemistry	Spectroscopy
Inorganic Chemistry	Chemical Physics
Organic Chemistry	Biological Physics
Industrial Chemistry	Medicinal Chemistry
Physical Chemistry	Environmental Chemistry
Applied Sciences	Applied Chemistry
Pure Chemistry	Physical Sciences

Its two-year volumes consisting of four issues are taken as the source journal for study for the year 2022-2023. Its ISSN is 0973-564X.

## RESEARCH METHODOLOGY

The data are collected from the last two volumes (41 and 42) published in Bulletin of Pure and Applied Sciences Section – C during the period from 2022 to 2023. The data comprises of 30 (26 primary contribution, 03 review articles and 01 short communication) articles published in this journal's four issues. All the articles and its references are scanned and the data thus, obtained are tabulated and analyzed as per the objectives of the study.

## DATA ANALYSIS

The data collected from the source journal i.e., Bulletin of Pure and Applied Sciences Section – C during the period from 2022 to 2023 as per the objectives are tabulated and analyzed. The major findings are given at the end as obtained from the results of the present analysis.



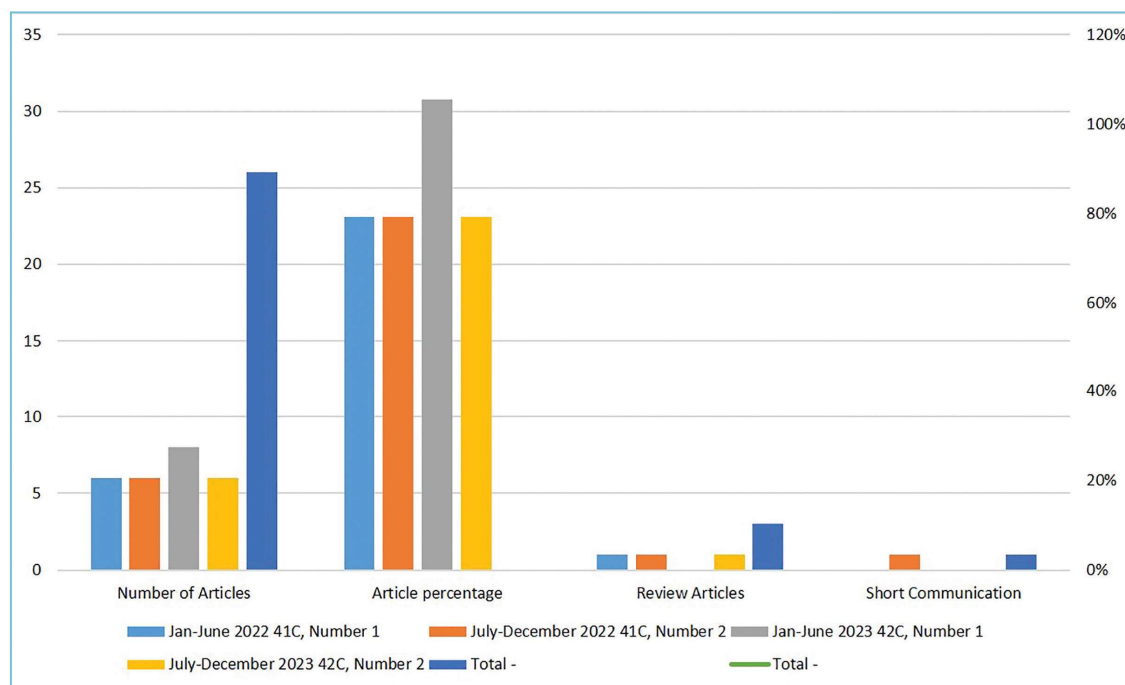
### Year Wise and Volume Wise Number of Articles

Table 2 shows the number of articles published in each volume of the Bulletin of Pure and Applied Science Section-B during 2022 to 2023. It is clear that a total of 30 articles were published in its last four issues. The maximum number of articles 08 in its volume 42 C that was published in the year first issue (Jan-

June) 2023 that constitutes 30.76% to total contribution made in the last two years in this journal. It is followed by rest 06 articles each published in 41 C issues 1-2 and 42 C issues -1 respectively. There is no review article published in Jan-June 2023 issue and no short communication except. Thus, the maximum number of articles is 08 that second issue of 41 C and minimum number is 06 each in four issues of the journal.

**Table 2:** Year and Volume Wise Number of Articles

Year	Volume	Number of Articles	Article percentage	Review Articles	Short Communication
Jan-June 2022	41C, Number 1	06	23.07	01	-
July-December 2022	41C, Number 2	06	23.07	01	01
Jan-June 2023	42C, Number 1	08	30.76	-	-
July-December 2023	42C, Number 2	06	23.07	01	-
<b>Total</b>	<b>-</b>	<b>26</b>	<b>99.97 = 100%</b>	<b>03</b>	<b>01</b>



**Figure 1:** Year and Volume Wise Number of Articles

Figure 1 also depicts the details more clearly.

### Authorship Pattern of Contribution

Table 3 gives the details of the authorship patterns of the article contribution made by the different categories of author time to time. It may be seen very well from the table that 06 authors have contributed solely 20.00 percent of the total contribution.

It is followed by 08 contributions by two-authors, three authors and multi-author contributions that is 26.67 percent respectively. It means this field comprises more than one aspect because the articles come from either dual authorship or in multi-author category.

**Table 3:** Authorship Pattern of Contribution

Number of Authors	Article Contribution	Percentage
Single Author	06	20.00
Two Authors	08	26.67
Three Authors	08	26.67
More than Three Authors	08	26.67
Total	30	100.01=100%

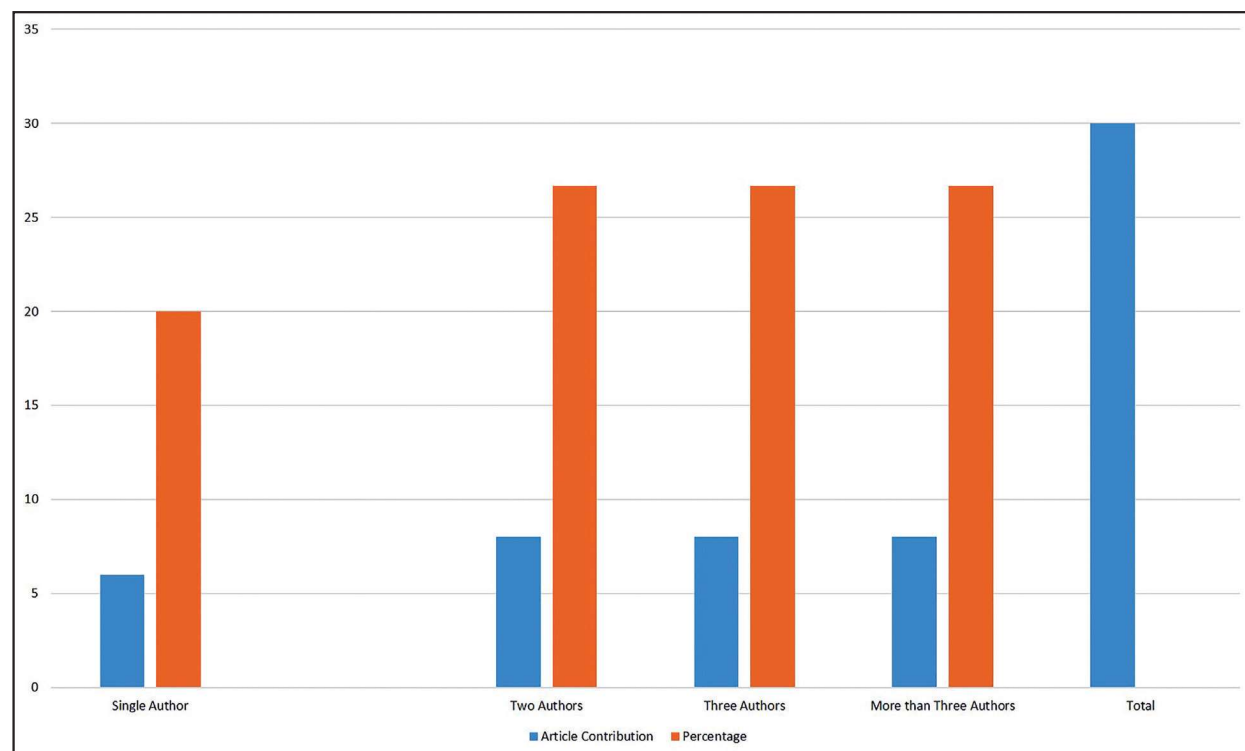
**Figure 2:** Authorship Pattern of Contribution

Figure 2 also clarifies the situation more clearly.

### Volume Wise Authorship Pattern of Contribution

Table 4 shows volume wise authorship pattern of contribution. It is clear that maximum 06 articles are contributed by single author in two issues of the journal during 2022 and 2023. It is followed by 08 each contribution by two, three- and more than three author contribution.

If volume wise data are analyzed it is seen that out of 07 articles published in first issue of 41 C (2022) 02 (33.33%) has contributed more than that of 01 by three author publication. However, 04 articles come from 04 authors

leading to 50.00 percent total contribution in this issue. Likewise, in its second issue, out of 08 articles 03 came from single author and 03 from two authors. It is followed by 01 contribution each by three author and multi-author contribution that makes 12.5% respectively.

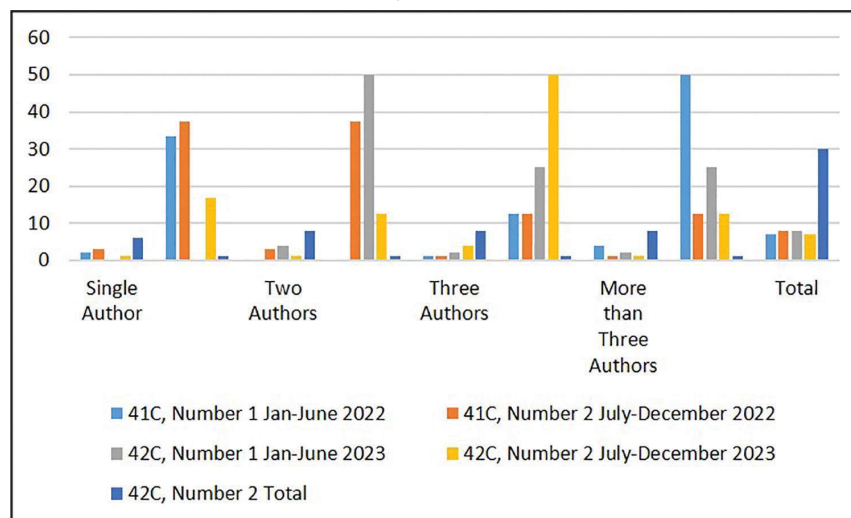
Further, the first issue (Jan-June 2022-23) reveals that there is no single author's contribution in this journal issue. Only 04 (50.00%) two-authors, 02 each by three authors and more than 03 authors came in this issue. In 42 C second issue, maximum article contribution came from three authors that is 04 in number and 50.00 percent in total.

**Table 4:** Volume Wise Authorship Pattern of Contribution

Volume Number	Year	Single Author		Two Authors		Three Authors		More than Three Authors		Total Articles
		No.	%	No.	%	No.	%	No.	%	
41C, Number 1	Jan-June 2022	02	33.33	-	-	01	12.50	04	50.00	07
41C, Number 2	July-December 2022	03	37.50	03	37.50	01	12.50	01	12.50	08
42C, Number 1	Jan-June 2023	-	-	04	50.00	02	25.00	02	25.00	08
42C, Number 2	July-December 2023	01	16.67	01	12.50	04	50.00	01	12.50	07
Total		06	100%	08	100%	08	100%	08	100%	30

Thus, the maximum number of articles came from multiple authorship consisting of two-, three and more than three authorships. So, it can be concluded that this field of study

is multi-subject filed where scientists from different subjects participate in writing their articles.

**Figure 3:** Volume wise Authorship Pattern of Contribution

### Year Wise Degree of Collaboration of Authors

The 'Degree of Collaboration' is known as the ratio of the number of collaborative research papers to the total number of research papers in the discipline during a certain period of time (Subramanyam, 1983). Table 5 depicts

year-wise degree of collaboration among the authors. It is seen from the table that it ranges from 23.33 to 26.67 that is seen in the year first and last issues of 2022 & 2023 and second and first issues of 2022 & 2023 respectively.

Further, year wise degree of collaboration is clearly shown through figure 4.

**Table 5:** Year Wise Degree of Collaboration among Authors

S. no.	Year	Single Author	Two Author	Three Author	Multiple (Two+ Three Author)	Total	Degree of Collaboration
1	Jan-June 2022	02	-	01	04	07	23.33
2	July-December 2022	03	03	01	01	08	26.67
3	Jan-June 2023	-	04	02	02	08	26.67
4	July-December 2023	01	01	04	01	07	23.33
Total		06	08	08	08	30	100

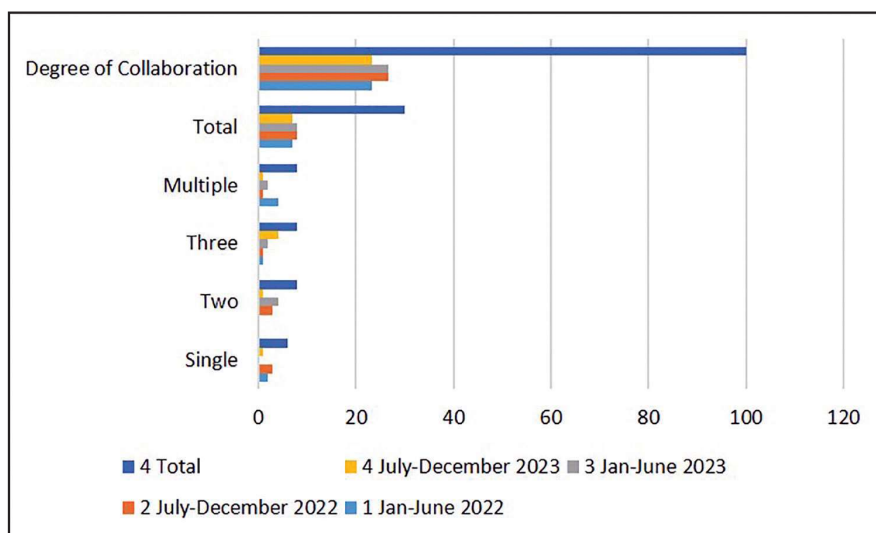


Figure 4: Year Wise Degree of Collaboration

### Country Wise Distribution of Articles

The journal also publishes articles from foreign countries. Table 7 describes the details of the country from where the articles were published in the journal.

It may be noted that Nigeria tops the list with 12.67 percent contribution that is followed by USA which stands second in the list of foreign contribution. Third position is occupied by Indonesia, ST. Petersburg (Russia) and Mexico with 02 contributions each. Rest Brazil contribution is 01 article. However, 69.01 percent share is shared by Indian authors.

Table 6: Country Wise Distribution of the Articles

S.N.	Name of the Country	No. of Articles	Percentage
1	Nigeria	9	12.67
2	USA	6	8.45
3	Indonesia	2	2.81
4	St. Petersburg (Russia)	2	2.81
5	Mexico	2	2.81
6	Brazil	1	1.40
7	India	49	69.01

Thus, foreign contribution is 30.95 percent, and Indian contribution is 69.01 percent.

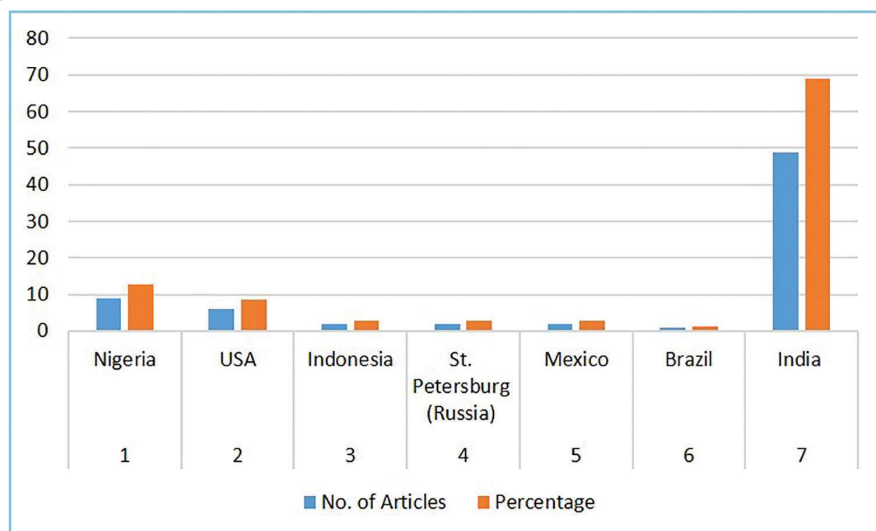


Figure 5: Country Wise Distribution of the Articles

Figure 5 also shows the details of countries who contributed articles in this journal.



### State wise Distribution of the Articles

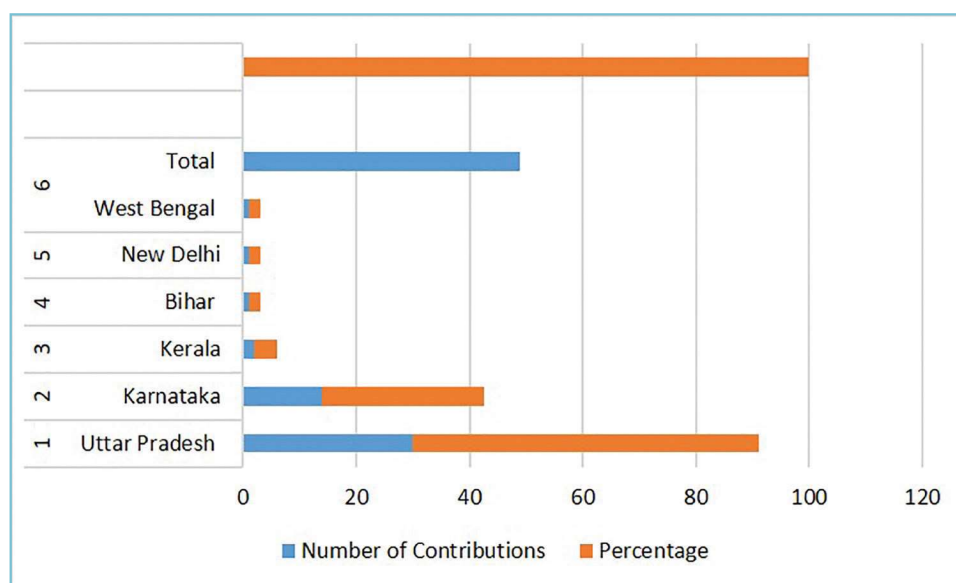
India consists of 28 states and 08 union territories. Thus, next it was ascertained how much contribution is coming from which state in this journal from Chemists or chemical scientists and other field scientists.

**Table 7:** State wise Distribution of the Articles

S. no.	Name of State	Number of Contributions	Percentage
1	Uttar Pradesh	30	61.22
2	Karnataka	14	28.57
3	Kerala	02	4.08

S. no.	Name of State	Number of Contributions	Percentage
4	Bihar	01	2.04
5	New Delhi	01	2.04
6	West Bengal	01	2.04
Total		49	99.99 = 100.00

It may be noted that out of 49 authors who contributed to this journal, 30 came from Uttar Pradesh that consists of 61.22 percent of the total Indian contribution. It is followed by Karnataka with 28.57 percent contribution and Kerala with 4.08 percent contribution.



**Figure 6:** State Wise Distribution of the Articles

Least contribution is from West Bengal (Calcutta) and Bihar with 01 contribution each that forms 2.04 percent to the total contribution in the journal.

### Most Productive Authors of the Journal

It was noted in the study that a total of 30 articles were contributed by 71 authors

(49 from India and 22 authors from foreign countries.

First among the most productive authors is Pruthviraj R D with 07 articles. It is followed by 05 articles each by Navneet Kumar and Arti Deo Tripathi. UT Mamza, and Souvik Sur is on the third position with 04 contribution each.

**Table 8:** Most Productive Authors of the Journal

Name of Authors	No. of Appearances in Articles	Rank
Pruthviraj R D	7	01
Navneet Kumar	5	02
Arti Deo Tripathi	5	02
Mamza U T	4	03
Souvik Sur	4	03

Name of Authors	No. of Appearances in Articles	Rank
03 articles by 03 authors	09	
01 articles by 11 authors	11	
01 article each by 39 authors	26	
Total	71	

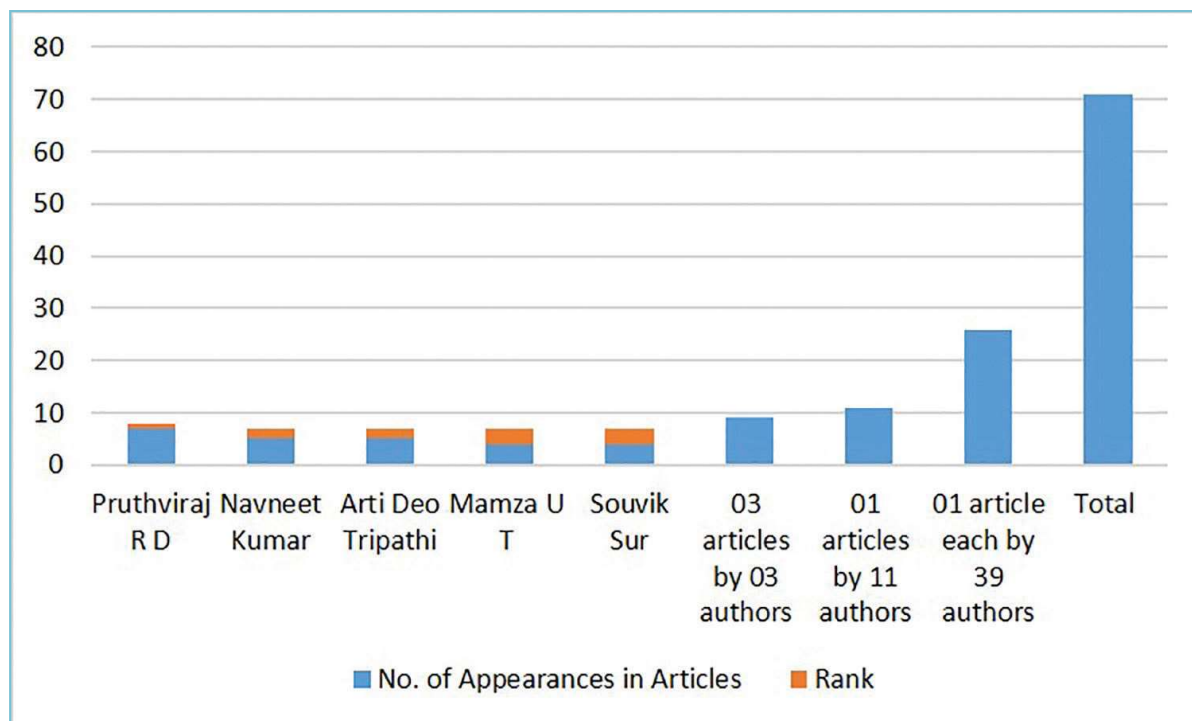


Figure 7: Most Productive Authors of the Journal

However, there are the articles which are contributed by 03 by 03 authors, 01 articles by 11 authors and 01 each by 26 authors.

#### Average Length of the Articles

Table 9 describes the length of articles that

have been divided into the four categories, viz., 00-5, 05-10, 10-15 and 15-20 pages during the period of 2022-2023. It is observed that the maximum number of articles 13 out of 30, comprising 43.33% is published in 5-10 pages of length.

Table 9: Average Length of Articles

Range of the Pages	Jan-June 2022	July-December 2022	Jan-June 2023	July-December 2023	Total	Percentage
00-05	2	5	4	1	12	40.00
05-10	3	2	4	4	13	43.33
10-15	2	-	-	1	03	10.00
15-20	-	1	-	1	02	06.67
Total	07	08	08	07	30	100

Further, 12 (40.00%) articles each are finished in 0-5 pages and 03 articles (10.00%) in 10-15 pages length respectively. However,

the minimum number of articles that is 02 is published in 15-20 pages that constitute to 06.67% only.

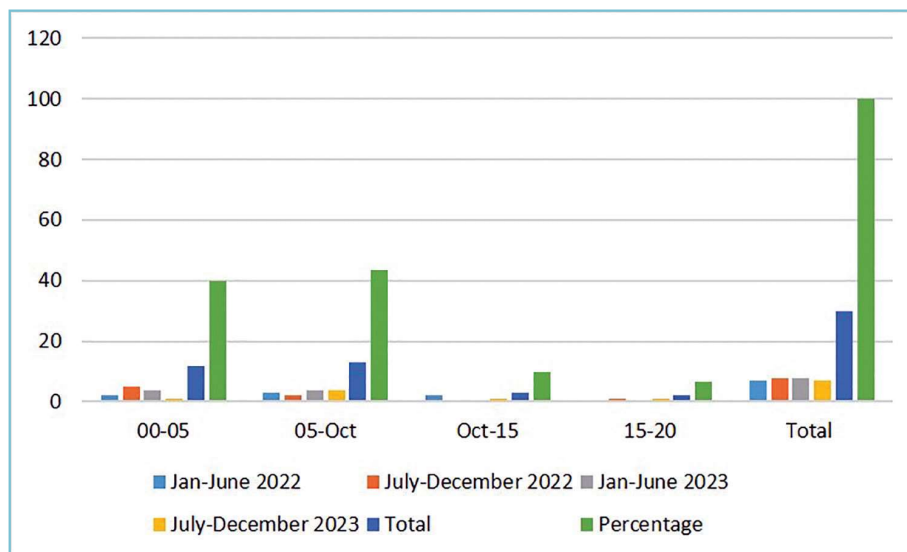


Figure 8: Average length of Articles

### Average Number of References per Article

Table 10 depicts the average number of the references per article published in the last two-year issues of Bulletin of Pure and Applied

Science Section-C. It is very clear that most of the articles (14) consisting of 48.27% have 10-20 references per article; followed by 08 articles (27.58%) with 0-10 references per article.

Table 10: Average number of References per Article

Range of the Pages	Jan-June 2022	July-December 2022	Jan-June 2023	July-December 2023	Total	Percentage
0-10	2	3	2	1	08	27.58
10-20	2	3	6	3	14	48.27
20-30	1	-	-	2	03	10.34
30-40	2	-	-	-	02	06.89
40-50	-	-	-	1	01	03.44
50-60	-	1	-	-	01	03.44
<b>Total</b>	<b>07</b>	<b>07</b>	<b>08</b>	<b>07</b>	<b>29</b>	<b>99.96 = 100.00</b>

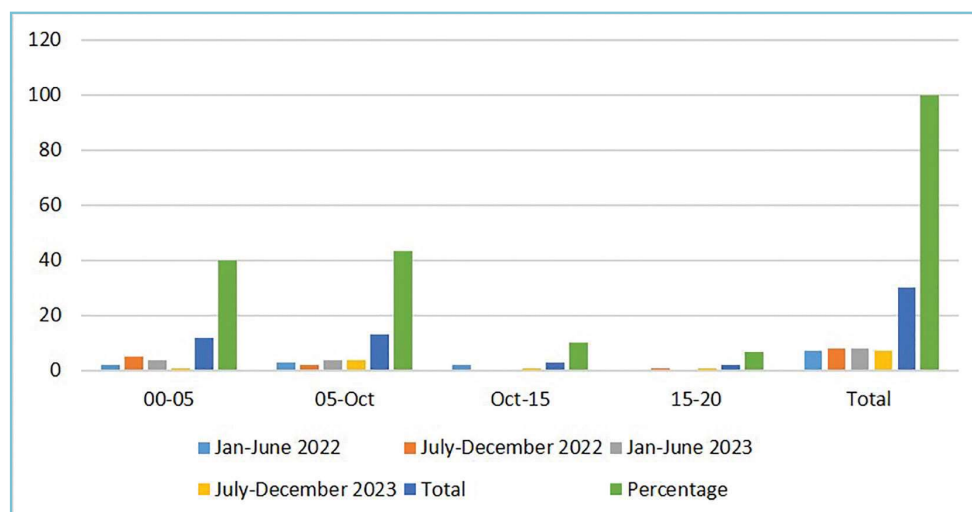


Figure 9: Average Number of References

However, it is seen that the least numbers of 01 each article are 40-50 and 50-60 references per article. It means primary articles with a smaller number of references are majority of the publication and 02 review articles out of 03 have having a greater number of references. So, it is confirmed that primary articles have a smaller number of references as compared to review articles with the highest number of references.

## MAJOR FINDINGS OF THE STUDY

The major findings of the study are:

1. A total of 30 articles were published in its last four issues. The maximum number of articles 08 in its volume 42 C that was published in the year first issue (Jan-June) 2023 that constitutes 30.76% to total contribution made in the last two years in this journal. It is followed by the remaining 06 articles each published in 41 C issues 1-2 and 42 C issues-1 respectively.
2. 06 authors contributed solely 20.00 percent of the total contribution. It is followed by 08 contributions by two-authors, three authors and multi-author contributions that is 26.67 percent respectively.
3. The maximum number of articles came from multiple authorships that consisted of two, three and more than three authors. So, it can be concluded that this field of study is multi-subject field where scientists from different subjects participate in writing their articles.
4. Collaboration among the authors ranges from 23.33 to 26.67 that is seen in the first and last issues of 2022 & 2023 and second and first issues of 2022 & 2023 respectively.
5. In country wise distribution of the articles, Nigeria tops the list with 12.67 percent contribution that is followed by USA which stands second in the list of foreign contribution. Third position is occupied by Indonesia, ST. Petersburg (Russia) and Mexico with 02 contributions each. Rest Brazil contribution is 01 article. However, 69.01 percent share is shared by Indian authors.
6. It may be noted that out of 49 Indian contributions, 30 came from Uttar Pradesh that consists of 61.22 percent of the total Indian contribution. It is followed by Karnataka with 28.57 percent contribution and Kerala with 4.08 percent contribution.
7. Among the most productive authors is Pruthviraj R D with 07 articles. It is followed by 05 articles each by Navneet Kumar and Arti Deo Tripathi. UT Mamza, and Souvik Sur is on the third position with 04 contribution each.
8. It is observed that the maximum number of articles 13 out of 30, comprising 43.33% is published in 5-10 pages of length.

Further, 12 (40.00%) articles each are finished in 0-5 pages and 03 articles (10.00%) in 10-15 pages length respectively. However, minimum number of articles that is 02 is published in 15-20 pages that constitute to 06.67% only.

It is also seen that the least numbers for 01 each article are 40-50 and 50-60 references per articles. It means primary articles with less number of references are majority of the publication and 02 review articles out of 03 have more number of references.

## CONCLUSION

Thus the present bibliometric study presents an overview on the author's collaboration, number of references given at the end of each paper and ranges of the references per article in writing the articles by Chemists and Chemical Scientists. On the basis of the results of the study, it can be concluded that Bulletin of Pure and Applied Science, Section-C seems to be a pioneer journal in the field of chemistry that is publishing articles on different sub-fields of chemistry and related fields. It is seen that most of the articles are written in collaboration as they are contributed by two, three and more than three authors. Further, the journal publishes research articles as 00-05 pages with 10-20 references per article seem to be good for a research article because original contributions possess less references and finish in less number of pages. It is a good journal that is indexed in Google Scholar, GALE group, Indian Science Abstract, EBSCO Information Services, SCOPE Database, Indian Citation Index etc. Thus, it can be ascertained that this journal is publishing original and research articles continuously.

It is hoped this journal is and will be of immense value for Chemists, Chemical Scientists and Chemistry people in particular and for the students, professionals and the

teaching fraternity in general for science and other related fields of study.

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