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MAPPING OF INORGANIC CHEMISTRY PUBLICATIONS: A STUDY BASED ON SCIMAGO JOURNAL AND COUNTRY RANK DATABASE

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ABSTRACT

This paper discusses about the Inorganic Chemistry publications and its citation available in the Scimago Journal and Country Rank data base by the authors from top 15 countries (based on publications). The relevant data are collected from Scimago Journal and Country Rank data base and it was analyzed. It shows among the Inorganic Chemistry publications totally 299639 articles were published which are indexed in Scimago database. Among the publications, maximum of 55206(18.42%) articles published by China and followed by United States with 49814(16.63%) publications during the study period.

Keywords: Inorganic Chemistry, Scimago Journal and Country Rank, Citations, Citable Documents, Self Citations, H- Index.

INTRODUCTION

The true barometer of assessing the quality and quantity of a journal is the Citation Index. While discussing citation, one needs to understand the citation. Simply, when another refers other works in his/her article, we call the article referred is cited. In other words the citation is called as the

previous work which is referred in the present work. The quality of a given work can rightly be adjudged through the number of citations that it gets. Therefore, a certain piece of article or research paper is carrying more number of citations get more impact than the work carrying less citation. Therefore, we always refer to some indexing

and abstracting databases like Scopus, Web of Science, or even Google Scholars to know the impact of a journal, a particular article or a particular author. Scimago Journal and Country Rank database developed by Scimago Lab and powered by Scopus.

Nicholas and Ritchie (1978) view that, “study of bibliometrics concept provides information, knowledge and how it is communicated”. Moreover, bibliometric studies are normally employed to evaluate the academic research output, the quality of the journal, impact and influence of articles, authors, and assorted parameters. Though there has been substantial growth of literature on bibliometric studies during the last decade,

the authors focus on some of the pertinent literature that relate to the present study. Potter (1981) defines bibliometric analysis as “the calculation and study of the research publication patterns of all types of written communication and their authorship nature”. In a most interesting study Mooghali, et al.(2011) analyzed records of three premiere indexes known as , “SSCI”, “SCI”, and “AHCI”, and it is projected in the field of “scientometrics” evolved between 1980 to 2009. The pattern of growth of literature in the field of Nanoscience during 1990 to 2009 was reported by Karpagam et al. (2011) .In the similar vein, Abramo (2011) exercised bibliometric techniques on some

national level research assessment. Lapon-Kandeishein and Prebor (2011) bibliographical research on Hebrew printing also needs mention. In the similar light bibliometric studies by veterans like Krampen, Eye and Schui (2011) , Kumar Suchetan(2012) and others also presented findings on different directions. Dhanavandan and Tamizhchelvan (2014) studied citations and research productivity of south Tamil Nadu universities from 2009 to 2013 based on Indian Citation Index (ICI).

RESULTS AND DISCUSSIONS

This study aims to discuss about the Inorganic Chemistry publications and its citation available in the Scimago Journal and Country Rank data base by the top 15 countries (based on publications). The relevant data are collected from Scimago Journal and Country Rank database. Based on the available sources, the following discussions are made. The distributions of the Inorganic Chemistry publications by the top 15 countries that is available in Scimago Journal and Country Rank data base which were analyzed in the table 1.

**COUNTRY-WISE INORGANIC CHEMISTRY PUBLICATIONS
(TOP 15 COUNTRIES)**

Table 1: Country- wise Inorganic Chemistry Publications (Top15 Countries)

S.NO	Country	Inorganic Chemistry Publication	%
1	China	55206	18.42
2	United States	49814	16.63
3	Germany	36444	12.16
4	Japan	23462	7.83
5	India	22073	7.37
6	Russian Federation	19206	6.41
7	France	17871	5.96
8	United Kingdom	16624	5.55
9	Spain	13444	4.49
10	Italy	11659	3.89
11	Poland	8732	2.91
12	Canada	8060	2.69
13	South Korea	5725	1.91
14	Australia	5665	1.89
15	Switzerland	5654	1.89
	Total	299639	100

The above Table 1 shows that the country-wise distribution of Inorganic Chemistry publications from top 15 countries. From 1996 to 2015, totally 299639 articles were published which are indexed in Scimago database. Among the publications, maximum of 55206(18.42%) articles published by China and followed by United States with 49814(16.63%) publications.

COUNTRY- WISE DISTRIBUTION OF INORGANIC CHEMISTRY CITABLE DOCUMENTS:

Table 2: Country- wise Distribution of Inorganic Chemistry Citable Documents

S.NO	Country	Inorganic Chemistry Citable Documents	%
1	China	55000	18.49
2	United States	49259	16.55
3	Germany	36166	12.16
4	Japan	23285	7.83
5	India	21948	7.38
6	Russian Federation	19174	6.45
7	France	17743	5.97
8	United Kingdom	16398	5.51
9	Spain	13365	4.49
10	Italy	11568	3.89
11	Poland	8673	2.91
12	Canada	7989	2.69
13	South Korea	5685	1.91
14	Australia	5635	1.89
15	Switzerland	5585	1.88
	Total	297473	100

The above Table 2 presents the country-wise distribution of Inorganic Chemistry citable documents (includes articles, reviews and conferences papers), from top 15 countries from 1996 to 2015, 297473 citable documents were available which are indexed in Scimago database. Among the citable documents maximum of 55000(18.49%) by China followed by United States with 49259(16.55%) and India contributed 21948(7.38%) citable documents.

COUNTRY- WISE DISTRIBUTION OF INORGANIC CHEMISTRY CITATIONS:

Table 3: Country -wise Distribution of Inorganic Chemistry Citations

S.NO	Country	Inorganic Chemistry Citations	%
1	China	611389	12.18
2	United States	1218375	24.28
3	Germany	603413	12.02
4	Japan	449397	8.96
5	India	225506	4.49
6	Russian Federation	125474	2.50
7	France	361495	7.20
8	United Kingdom	333449	6.64
9	Spain	251899	5.02
10	Italy	217480	4.33
11	Poland	96079	1.91
12	Canada	182112	3.63
13	South Korea	96199	1.92
14	Australia	115911	2.31
15	Switzerland	130830	2.61
	Total	5019008	100

COUNTRY -WISE DISTRIBUTION OF SELF CITATIONS:**Table 4: Country- wise Distribution of Self Citations**

S.NO	Country	Inorganic Chemistry Self Citations	%
1	China	362789	21.00
2	United States	428171	24.78
3	Germany	201464	11.66
4	Japan	143433	8.30
5	India	107167	6.20
6	Russian Federation	47417	2.74
7	France	91606	5.30
8	United Kingdom	73954	4.28
9	Spain	76376	4.42
10	Italy	54043	3.13
11	Poland	32079	1.86
12	Canada	37540	2.17
13	South Korea	22853	1.32
14	Australia	24292	1.41
15	Switzerland	24750	1.43
	Total	1727934	100

The Table 4 reveals that the country -wise distribution of Inorganic Chemistry self citations, from top 15 countries from 1996 to 2015. Among the 1727934 Inorganic Chemistry self citations maximum of 428171(24.78%) by United States followed by china with 362789(21.00%) and Germany self citation is 201464(11.66%).

RANKING OF COUNTRY- WISE CITATIONS PER DOCUMENT:**Table 5: Ranking of Country -wise Citations per Document**

S.NO	Country	Citations Per Document	Ranking
1	China	11.07	XII
2	United States	24.46	I
3	Germany	16.56	XI
4	Japan	19.15	VII
5	India	10.22	XIV
6	Russian Federation	6.53	XV
7	France	20.23	V
8	United Kingdom	20.06	VI
9	Spain	18.74	VIII
10	Italy	18.65	IX
11	Poland	11	XIII
12	Canada	22.59	III
13	South Korea	16.8	X
14	Australia	20.46	IV
15	Switzerland	23.14	II

The Table 5 depicts that the ranking of country- wise distribution of citations per document (Average citations to documents published during 1996-2015), from top 15 countries. Among the citations per document study United States is in first rank with 24.46 followed by Switzerland is in second rank with 23.14 and Canada is in third rank with 22.59 citations per document used.

RANKING OF COUNTRY -WISE DISTRIBUTION OF H INDEX:

Table 6: Ranking of Country- wise Distribution of H Index

S.NO	Country	H Index	Ranking
1	China	160	II
2	United States	248	I
3	Germany	160	II
4	Japan	157	III
5	India	104	XI
6	Russian Federation	89	XIII
7	France	149	IV
8	United Kingdom	146	V
9	Spain	122	VII
10	Italy	117	VIII
11	Poland	79	XIV
12	Canada	125	VI
13	South Korea	98	XII
14	Australia	106	X
15	Switzerland	111	IX

The data presented in the Table 6 shows that the ranking of country- wise distribution of H Index (country's number of articles (h) that have received at least h citations) the United States is in the first rank with 248 H indexes followed by China and Germany with 160H indexes and Japan is in third rank with 157 H indexes.

CONCLUSION

The quality and quantity of research are made available through indexing journals

with citations of various articles. There is lacking, for providing citations to other articles which authors cite. For reviewing the previous articles which are very much important for supporting your article value added point for publishing. It is a good practice to give self citation for their previous works and it follows up of the previous one and improved one. In the Table 1, totally 299639 articles were published and maximum of 55206(18.42%) articles published by China and followed by United States with 49814(16.63%)

publications. The present study proves that in the (Table 2) totally 297473 citable documents were available, the maximum number of Citable documents 55000(18.49%) by China followed by United States with 49259(16.55%) and India contributed 21948(7.38%) citable documents. The citations study depicts that in the Table 3 maximum number of citations 12183759(24.28) by United States followed by China with 611389(12.18%) and Germany citation is 603413(12.02%). The self citations study reveals that in the Table 4 the maximum of 428171(24.78%) by United States followed by china with 362789(21.00%) and Germany self citation is 201464(11.66%). The Table 5 shows the ranking of countries based on the citations per document used by the countries United States is in first rank with 24.46 followed by Switzerland is in second rank with 23.14 citations. The H Index study Table 6 shows that United States is in the first rank with 248 H indexes followed by China and Germany with 160H indexes and Japan is in third rank with 157 H indexes. It is concluded that the maximum number of Inorganic Chemistry citations, self citations, citations per document and H index are from United States.

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