

Chemical Sciences Research Output among the Universities in the State of Tamilnadu: A Scientometric Study

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Chemistry is a major subject of domain of basic sciences, the principles; the theories and applications have been involved for the use of mankind for generations in almost in all kinds of physical activities. It is also evident that a major stake of research is being carried out in chemistry and allied subjects, as one fourth of the publications output are being indexed by most popular scholarly literature across the globe, it is very much imminent for library and information professionals to identify the scholarly input growth and trend of the subject prevalence, the research applications, the research funding and opportunities, the research tools, methods, the organisations and the people engaged in research of chemical sciences and to forecast the same to the user community.

The Universities in Tamilnadu have the major stake towards contributing and orienting the academic research in India. Hence the study aimed at analysing and assessing the research output on chemical sciences from the State Government Universities of Tamilnadu through the publication output. The researcher has chosen Web of Science (WoS) database as the source of study and the study period is 1989-2014, The researcher has used the search string in the topic field "Chemistry" and Address field "Alagappa University", "Annamalai University", "Bharathidasan University", "Bharathiar University", "Madras University", "Madurai Kamaraj University", "Manonmaniam Sundarnar University", "Mother Teresa University", "Periyar University", and "Thiruvalluvar University" is used for data collection. The study found gradual growth of publication output over the years. Phenomenal growth is between 2011-2014. All the 5433 publications were received Global Citation Scores 51862. The literature published in 9 forms of documentations.

It is observed that its relative growth rate have shrunk gradually from 4.28 at 1989 to 8.61 in the year of 2014. Contrary to this, the Doubling time for publication of all sources of 0.19 research output has decreased from 1.17 in 1989 to 5.78 in 2014.

The Collaboration research between Tamilnadu State Universities had 51862 number of citations across the globe; the top three countries contributed are USA, Japan, and South Africa. There are 33 subject categories in chemical research is being carried out, which is published in 351 journals, the major output from top three journals are Indian Journal of Chemistry section B (236), Tetrahedron Letters (214), Asian Journal Chemistry (194). The researcher also applied the relevance of bibliometric laws and made a Histogrammical analysis for citations. There are 5437

number of authors were contributed this literature. The study shows that there were rich numbers of collaboration among the Indian and abroad.

Keywords: *Chemistry, Research Assessment, Scientrometrics, Bibliometrics, Universities, Tamilnadus*