The Journals of Chemical History, Education, and Documentation

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Section 1 of *Chemical Abstracts* was searched for the period 1962 through 1969 to locate all papers related to chemical history, education, and documentation. A tabulation was made of the number of papers published in each area by journal and language of publication. A comparison was made of the changing patterns of publication.

The growth of the literature of chemistry has been rapid in the last 10 years. This growth has led to changes in the scope of journals and the addition of new journals and languages in which papers are being published. The purposes of this paper are to present base line data on the number of papers published by journals that relate to chemical history, education, and documentation and to determine the languages in which papers are being published.

A search was made of each Section 1 of *Chemical Abstracts* (*CA*) for the period 1962 (Volume 56) through 1969 (Volume 71) to locate abstracts of all papers related to chemical history, education, and documentation that had appeared in journals. A tabulation was made of the journal sources by area (history, education, or documentation) in which papers were written and the languages in which they were published. All papers, with the exception of those related to education and documentation, that were of a news nature—i.e., the announcement of the presentation of an award, a discovery of significance to the profession as a whole, or similar items—were classified as history. Abstracts of books, reports, dissertations, etc., and cross references in *CA* were not included in this study. The data were summarized by area and by chronological period in which the abstract appeared in *CA*—i.e., 1962–65 (Volumes 56–63) and 1966–69 (Volumes 64–71). This separation was made in order to compare the changing patterns of publication in various journals and languages.

Table I. Journals of Chemical History

Journal	1962-65 No. articles	1962-65 %	1966-69 No. articles	1966-69 %	Total No. articles	Total %
Chem. Eng. News	282	20.4	359	21.5	641	21.0
J. Chem. Educ.	29	2.1	39	2.3	68	2.3
Chymia	20	1.5	43	2.6	63	2.1
Kagaku No Ryoiki	17	1.2	21	1.3	38	1.2
Chem. Weekblad.	10	0.8	21	1.3	31	1.0
Ann. Sci.	9	0.7	19	1.1	28	0.9
Isis	8	0.6	17	1.0	25	0.8
Khim. Shk.	9	0.7	14	0.8	23	0.8
Stud. Conserv.	9	0.7	11	0.7	20	0.7
Zh. Obshch. Khim.	5	0.4	8	0.5	13	0.4
Other	976	70.9	1121	66.9	2097	68.8
Total	1374		1673		3047	

Abstracts of 6910 papers were published in Section 1 of *CA* during the period 1962 through 1969. Of this number, 44.1% (3047) relate to history; 38.1% (2635) to education, and 17.8% (1228) to documentation.

Table I presents a summary of the number and percentage of papers that relate to the history of chemistry that appeared in 10 journals during the period under study. *Chemical and Engineering News* published 21.0% of the articles related to chemical history with no significant differences between the two time periods. The high percentage of papers in this journal is the result of the large number of news articles that are published. The other nine journals listed in Table I account for an additional 10.2% of the papers with the remaining 68.5% appearing in a broad spectrum of journals. For example, Volume 70 (January through June, 1969) of *CA* contained a total of 162 abstracts related to chemical history. *Chemical and Engineering News* contained 40 of these papers; the remaining 122 papers appeared in 101 different journals.

Table II. Journals of Chemical Education

Journal	1962–65 No. articles	1962–65 %	1966–69 No. articles	1966–69 %	Total No. articles	Total %
J. Chem. Educ.	438	47.1	674	39.5	1112	42.3
Sch. Sci. Rev.	138	14.8	192	11.2	330	12.5
Khim. Shk.	29	3.1	97	5.7	126	4.8
Chem. Eng. News	77	8.4	27	1.6	104	3.9
Educ. Chem.	19	2.0	73	4.3	92	3.5
Chemistry	25	2.7	46	2.7	71	2.7
Am. J. Pharm. Educ.	15	1.6	37	2.2	52	2.0
Chem. Szk.	0	0.0	46	2.7	46	1.7
Amer. J. Phys.	3	0.3	27	1.6	30	1.1
Chem. Sch.	0	0.0	25	1.5	25	0.9
Other	187	20.0	460	27.0	647	24.6
Total	931		1704		2635	

Table III. Journals of Chemical Documentation

Journal	1962–65 No. articles	1962–65 %	1966–69 No. articles	1966–69 %	Total No. articles	Total %
J. Chem. Doc.	229	44.8	217	30.2	446	36.3
Am. Doc.	43	8.4	21	2.9	64	5.2
Advan. Chem. Ser.	10	2.0	19	2.6	29	2.4
Nachr Dok.	8	1.6	10	1.4	18	1.5
Chem. Eng. News	10	2.0	1	0.1	11	0.9
Other	210	41.2	450	62.8	660	53.7
Total	510		718		1228	

Table II presents a summary of the 10 leading journals, in terms of the number of papers published, during the period 1962 through 1969. The *Journal of Chemical Education* published 42.3% of all articles related to chemical education during the eight-year period. There was a 9.6% decrease in the number of papers appearing in this journal from the first to the second four-year period. During these same two periods, there were significant decreases in the percentage of articles appearing in *Chemical and Engineering News* and *School Science Review*. In contrast, there were significant increases in the percentage of articles appearing in *Chemia w Szkole*, *Chemie in der Schule*, and the *American Journal of Physics*. The 10 journals cited in Table II account for 75.4% of all papers published during the eight-year period. During the first four-year period, 80.0% of the papers appeared in eight journals. However, during the second period, 73.0% of the papers appeared in ten journals. It appears there is a growing tendency for authors to publish chemical education papers in a wider variety of journals.

Table III presents a summary of the number of papers published during the period 1962 through 1969 that relate to chemical documentation. Five journals contained a total of 46.3% of all papers published. During the first four-year period, these five journals accounted for 58.5% of the papers as compared with only 37.2% during the second period. It appears that papers related to chemical documentation are also being published in a wider variety of journals. However, the majority of papers are published in English language journals, with the *Journal of Chemical Documentation* being the most popular.

Table IV. Per cent of Articles in Various Languages

Language	History 1962–65	History 1966–69	Education 1962–65	Education 1966–69	Documentation 1962–65	Documentation 1966–69	Total 1962–65	Total 1966–69
English	53.2	64.1	88.7	76.5	85.0	65.1	70.8	69.4
German	12.6	9.9	2.3	4.9	6.2	6.6	8.0	7.3
Russian	10.2	5.6	4.1	7.5	3.1	12.8	6.8	7.7
French	6.2	4.5	1.0	1.5	0.2	4.6	3.4	3.2
Japanese	4.7	2.9	1.0	1.8	2.0	0.3	3.0	2.0
Other	13.1	13.0	2.9	7.8	3.5	10.6	8.0	10.4

A summary of the number of papers published in English, German, Russian, French, and Japanese is presented in Table IV. A comparison of the two periods under study shows that there was an increase in the percentage of papers in chemical history published in English with a decrease in the other languages. Approximately 87% of all papers were published in the five languages with the remaining 13% being published primarily in other European languages. English is the principal language in which papers related to chemical education are published. A comparison of the two periods shows a decrease in the percentage of papers published in English with a substantial increase in the percentage published in German and Russian. During the first four-year period, 97.1% of all papers were published in the five languages as compared with 92.2% in the second time period. English is also the principal language in which papers related to chemical documentation are published. A comparison of the two time periods shows a substantial decrease in the percentage of papers published in English (85.0% to 65.1%) with increases in German, French, and Russian. During the first four-year period, 96.5% of the papers were published in the five languages as compared with 89.4% during the second period.

It can be concluded from this study that there is a growing tendency for authors of papers related to chemical history, education, and documentation to publish their papers in a wider variety of journals. It further appears that a greater number of papers are being published in a wider variety of languages. However, about 70.0% of all papers in these areas are published in English.