SPEED OF ABSTRACTING AND COUNTRY OF ORIGIN OF ABSTRACTS PUBLISHED IN SECTION 8 (MINERALOGICAL AND GEOLOGICAL CHEMISTRY) OF "CHEMICAL ABSTRACTS"

BY MICHAEL FLEISCHER
U. S. Geological Survey, Washington, D. C.

Data on speed of abstracting and country of origin of the chemical literature are scanty. Crane and Heumann[1] gave percentages for countries of origin of papers published in Chemical Abstracts for 1956 and for eleven other years back to 1909. Perhaps similar figures for the last few years for Section 8 of Chemical Abstracts will be of interest.

It should be emphasized that our figures should not be construed to be representative of the whole field of chemistry. There are many reasons for believing that Section 8, Mineralogical and Geological Chemistry, is not representative. It is, of course, a borderline field, which represents a combination of laboratory work with field studies. Publication is therefore far more scattered geographically than that of purely laboratory research, as shown by the fact that in 1960 Section 8 carried abstracts of 3764 papers published in 65 different countries. These were published in hundreds of journals and in numerous government publications, most of which appear irregularly; Section 8 represents approximately 15 per cent. of the geological literature, so that coverage of the literature of chemical interest in this field is difficult.

SPEED OF ABSTRACTING

It would be desirable to have figures on the time in weeks or months that elapse between the actual date a paper appears and the abstract of it is in print. At best this would be an extremely laborious task, and for many journals it is impossible; the stated date of issue is quite often months, and for some journals years earlier than the actual date of issue. Therefore I have tabulated only a comparison of the year of publication of the abstract as compared to the date of issue. A volume marked "1958 (published 1960)" is counted as being published in 1960, but one marked "1958," and quite possibly published in 1960, is counted as published in 1958.

Most abstracts are published by Chemical Abstracts one month after being received from the abstractor. Ideally this means publication two to three months after the journal becomes available to the abstractor. The last issue of Chemical Abstracts goes to press about October 20 each year, which means that about 25 per cent. of U. S. publications and perhaps 40 per cent. of foreign publications cannot be abstracted during the calendar year of issue. Under ideal conditions, then, Table I might show 60 per cent. of abstracts published in the same calendar year as the paper appeared, 30 per cent. abstracted during the following calendar year, and 10 per cent. two calendar years later. The table shows a very different picture; the difference from the ideal might be taken as a measure of the effort needed to speed abstracting.

TABLE I

Comparison of Calendar Year of Publication of Abstract with that of the Article (by per cent. of total)

	1960	1959	1958	1957	1956	1955
Total number of abstracts	3764	3622	3069	2908	2065	1998
Article dated same year	25.5	27.8	26.3	22.6	30.8	22.5
Article dated preceding year	49.5	51.0	52.1	58.0	48.8	46.6
Article dated two years previous	14.3	12.4	13.4	12.1	14.3	18.3
Article dated three years previous	8.6	5.2	4.7	4.1	3.9	4.7
Article dated more than three years previous	2.1	3.6	3.5	3.2	2.2	7.9

It is likely that the time lag of publishing abstracts is greater for Section 8 than for other sections of Chemical Abstracts because of the geographical locations of the journals and because many of these publications, obtained by exchange, do not arrive in the United States until months, or even years, after publication. This has been partially alleviated by recruiting abstractors abroad (for example, in Japan, Poland, and Czechoslovakia). Nothing can be done, of course, about the apparent delay

[1] E. J. Crane and K. F. Heumann, "CA Measures a Nation's Research," Chem. Eng. News, Aug. 5, p. 64-66 (1958).

caused by the actual date of issue being long after the published date of issue.

The data in Table I show that the percentage of papers abstracted during the same plus the following calendar year has ranged from 69.1 to 80.6 per cent. The decrease during the past few years can fairly be attributed to the large increase in abstracts from publications of the U.S.S.R.; it has actually required a major effort to prevent the percentage from dropping further as the number of papers in languages read by few people in the United States has increased.

COUNTRY OF ORIGIN OF PAPERS ABSTRACTED

Table II summarizes data for the ten leading countries that contribute papers abstracted in Section 8, and gives for comparison the figures of Crane and Heumann for all of Chemical Abstracts in 1956. The figures for Section 8 are not consistent in that those for 1959 and 1960 are by the authors' countries, whereas the previous three years are by country of publication. A check covering about 20 per cent of 1957 indicated that the differences were minor.

The figures for any one year should not be taken too seriously. They are affected by the publication of large symposia (see Canada, 1958) and, regrettably, by the fact that abstractors sometimes fall behind in their assignments. For example, in 1956 there were backlogs in the abstracting of several U. S. and Japanese journals, which were largely cleared up in 1957. It is believed, however, that the over-all picture is significant, but even this is complicated by the fact that coverage has improved over the five-year period shown.

TABLE II
Country of Origin of Papers Abstracted in Section 8
(authors' countries in 1960 and 1959; country of publication other years)

	Section 8										All Chemical Abstracts[c]
	1960		1959		1958		1957		1956		1956
	No.	Percent.	No.	Percent.	No.	Percent.	No.	Percent.	No.	Percent.	Per cent.
U.S.S.R.	1475	39.2	1112	30.7	816	26.6	542	18.6	257	12.4	13.5
U. S. A.	622	16.5	584	16.1	482	15.7	579	19.9	420	20.3	28.4
Germany (W. and E.)	193	5.1	242	6.7	178	5.8	172	5.9	151	7.3	8.4
Japan	120	3.2	270	7.5	225	7.3	267	9.2	134	6.5	10.4
Great Britain[a]	111	2.9	118	3.3	168	5.5	217	7.5	132	6.4	9.2
France	91	2.4	116	3.2	106	3.5	118	4.1	90	4.4	6.0
Australia	91	2.4	67	1.8	47	1.5	98	3.4	Not		Not
Czechoslovakia	89	2.4	91	2.5	95	3.1	89	3.1	recorded		recorded
Canada	88	2.3	68	1.9	177	5.8	52	1.8	separately		separately
Poland	78	2.1	125	3.5	97	3.2	26	0.9			
All others	786	21.5	829	22.8	678	22.0	748	25.6	881[b]	42.7	[b]24.1
Total	3764	100.0	3622	100.0	3069	100.0	2908	100.0	2065	100.0	100.0

[a]Not including British Commonwealth or colonies.
[b]Including Australia, Czechoslovakia, Canada, Poland.
[c]From Crane and Heumann.

It is probable that the over-all rate of growth indicated (about 15 per cent. per year) is a little too high because of improved coverage, and that the rate of growth of publication in the U.S.S.R. is likewise somewhat exaggerated for the same reason. Nevertheless, there can be no doubt that there has been a real and very large increase in publication in this field in the U.S.S.R. The comparison for 1956 of the figures for Section 8 and all of Chemical Abstracts shows that the distribution in Section 8 is quite different from that in chemistry as a whole, so that extrapolations to other fields of chemistry are not justified.

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