

Publication Delays in the Chemical Engineering Literature

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The average elapsed time between submission of a paper by the author and its appearance in print has been computed for four prominent chemical engineering journals for the years 1960 to 1966. These four journals all require approximately ten to 12 months for publication, compared to an average of approximately five months for the *Journal of the American Chemical Society* and the *Journal of Chemical Physics*.

Authors submitting papers to any of the standard chemical engineering journals in recent years may have had the suspicion that they wait an inordinately long time to see the papers finally in print. In order to examine whether this impression had any basis in fact, the average time interval between the submission of the paper and its appearance in print has been analyzed for four chemical engineering journals. As a basis for comparison, computations were also made of the publication interval for papers submitted to the *Journal of the American Chemical Society* and the *Journal of Chemical Physics*.

We inspected the publication records for the *American Institute of Chemical Engineers Journal*, *Chemical Engineering Science*, and the *Journal of Chemical and Engineering Data* for the years 1960 through 1965, and for the first half of 1966. The *Industrial and Engineering Chemistry Fundamentals Quarterly* was also included beginning with 1962, the year publication was initiated. There are other journals to which the chemical engineer submits papers, but no attempt was made in this analysis to cover all of these possibilities. The four journals surveyed certainly carry a major portion of articles published in chemical engineering. If there is delay in the handling of papers by these four journals, the profession has a serious problem, regardless of what the performance record may be of journals not included in this survey.

Three of the journals considered are managed by professional societies. One of the journals is run by a commercial publishing house.

METHOD OF DATA ANALYSIS

For each of the four chemical engineering journals all full papers published during the periods covered were considered. Notes, comments, communications to the editor, book reviews, errata, etc., were not included. This, then, essentially constitutes the analysis of "regular articles." All such articles carried some indication of the date of initial receipt at the editor's office. For each article a computation was made of the elapsed time to the appearance of the article in print. For these purposes it was assumed that the article was in print as of the

first day of the month corresponding to the labeling of the issue in which the article was printed. This gives the journal system the benefit of any doubt; on occasion some of these journals are not received until late in the month indicated or even early into the following month.

Time intervals for each paper were estimated to the nearest half month. Arithmetic averages were then obtained for each publication year (first six months only for 1966). A note was made also of the shortest and longest time involved in the handling of the manuscript for each journal for each year. The results of this analysis are shown in Figures 1 through 4. Each figure displays for a particular journal the average number of months required to get a paper into print on a year-by-year basis; the symbols S and L in these figures are indicators of the shortest and longest intervals involved in a given year.

Figure 1 also includes for reference purposes the computations that were made for the *Journal of the American Chemical Society* and the *Journal of Chemical Physics*, both only for the first six months of 1965. These control computations are admittedly for a much shorter time interval than considered for the chemical engineering journals. However, in the case of both these journals, the six-month analysis involved a large number of papers and the answers are certainly statistically significant.

The figures should be largely self-explanatory. However, several trends and facts might be noted. There is a systematic year-by-year improvement in the publication record of the *American Institute of Chemical Engineers Journal*, the average elapsed time having dropped by more than 30% in the six-year period. It is rather disappointing on the other hand to see the publication delay for the *Industrial and Engineering Chemistry Fundamentals Quarterly* slowly increasing. (It should be remembered, incidentally, with respect to the latter publication that it is a quarterly; therefore, the average publication length might be reasonably expected to be a month or two longer than for a journal published every month.)

Regardless of the trends, there is one inescapable conclusion—namely, that for this entire six-year period the average time for publication is of the order of magnitude of twice as long as that required for first-rate chemistry and chemical physics journals.

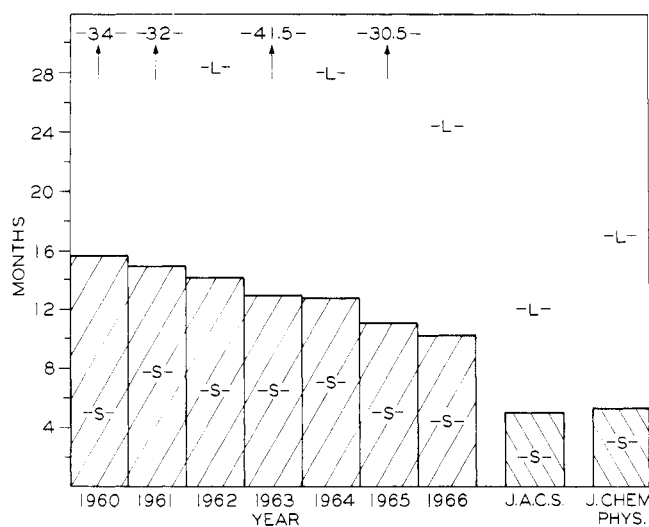


Figure 1. Average time interval in months for publication of papers submitted to the *American Institute of Chemical Engineers*

The S and L symbols denote the shortest and longest time interval for any manuscript in a given year. The comparison data shown for the *Journal of the American Chemical Society* and the *Journal of Chemical Physics* are for the first six months of 1965

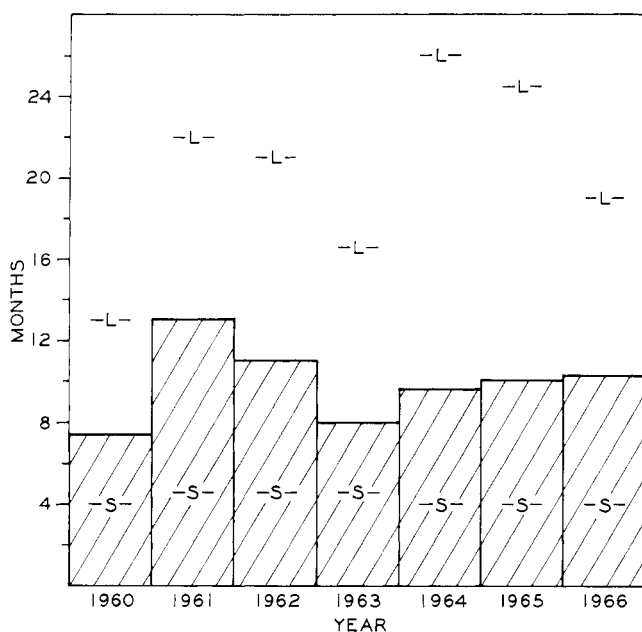


Figure 2. Average time interval in months for publication of papers submitted to *Chemical Engineering Science*

COMMENT

The objective of the present paper is to present a few facts in a form adequate to confirm the concept that there is a serious delay in the handling of papers submitted to the prominent chemical engineering journals. Whether such a delay is unnecessary might best be discussed elsewhere.

There may be various reasons for delay in publication of a paper: an inefficient and time-consuming referee system, inefficient handling of manuscripts in an editorial office, slow movement of the manuscript after it is turned

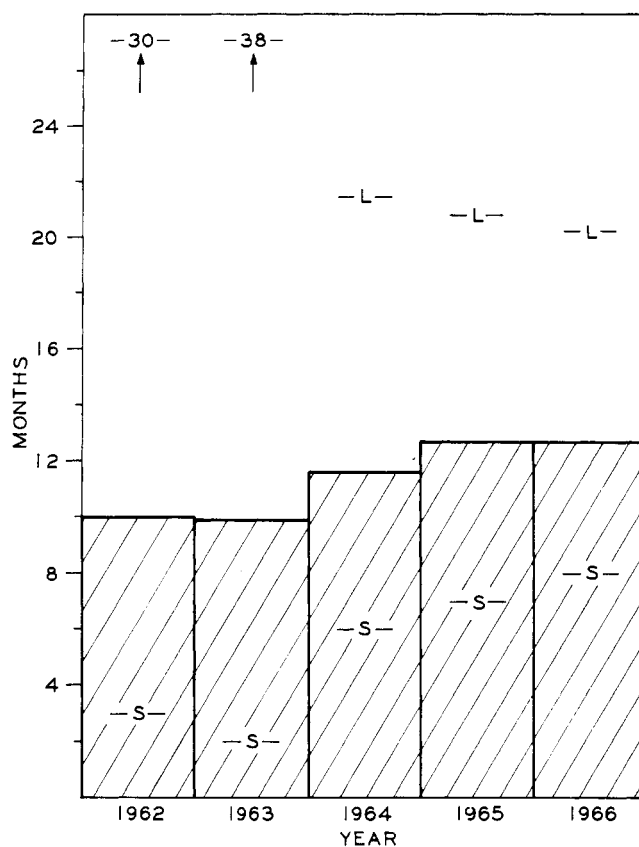


Figure 3. Average time interval in months for publication of papers submitted to *Industrial and Engineering Chemistry Fundamentals Quarterly*

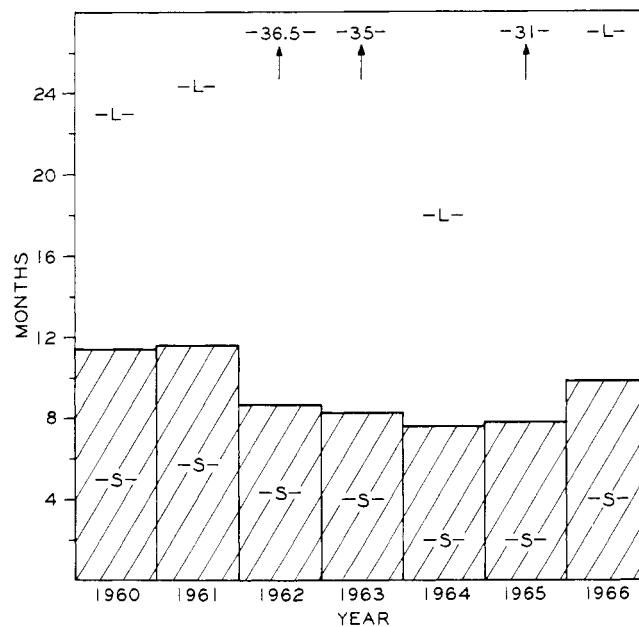


Figure 4. Average time interval in months for publication of papers submitted to the *Journal of Chemical and Engineering Data*

over to the printer, and delays on the part of the author when manuscripts are returned for revision. In this context one further point might be made: In the six-and-a-half year period reviewed for the *American Institute of Chemical*

MEETING

Engineers Journal, approximately 390 papers were published. Of that total we could only find two papers that were printed as originally submitted by the author without being returned for revision! This represents approximately 0.5% of the papers printed as submitted, compared to approximately 47% of the papers printed in the form submitted by the author to the *Physical Review* during 1965 (1).

In summary, the data indicate that an author presenting a paper to one of these standard chemical engineering journals can expect a delay on the average of ten to 12 months before his paper appears in print. This is more than twice the average time interval for the *Journal of Chemical Physics* and the *Journal of the American Chemi-*

cal Society. Also, there are indications that there is some risk that a paper submitted to the chemical engineering journals may be delayed for intervals ranging between two and three years before finally appearing in print.

ACKNOWLEDGMENT

Mrs. Margot Jenner and Mr. Ping Sheng assisted in the collection and analysis of data.

LITERATURE CITED

- (1) Pasternack, S., *Physics Today* **19**, No. 5, p. 38 (1966).

Division of Chemical Literature Program

154th National ACS Meeting, Chicago, Ill., September 10-15, 1967

MONDAY MORNING

Symposium on Microforms in Information Storage and Retrieval

H. M. Kissman, Presiding

- 9:00- H. M. Kissman. Introductory Remarks.
9:20- 1. J. E. Crow. Microfiche and Technical Information.
9:50- 2. H. M. Rodell. Conversion of U. S. Patents to Microfilm.
10:20- 3. T. F. Connolly. Information Retrieval with Indexed Microfilm—The Research Materials Information Center.
10:50- 4. J. D. Furlong. Future Developments in Microform Storage, Retrieval and Micropublishing.

MONDAY AFTERNOON

General

J. H. Clark, Presiding

- 2:00- J. H. Clark. Introductory Remarks.
2:05- 5. N. B. Rainer. Foreign Patent Filing—Decision-Making Factors and a System of Analysis.
2:20- 6. J. PINZELIK, L. Howland. A User Study of *Chemical Titles* in a University Setting.
2:40- 7. M. K. PARK, K. Kenny, P. E. Swartzentruber. Automatic Editing of Chemical Nomenclature.
3:10- 8. C. C. Langham, K. L. LOENING, D. J. Whittingham. A New Guide to the Naming and Indexing of Chemical Compounds by *Chemical Abstracts*.
3:30- 9. L. H. Leighner, D. P. LEITER, JR. A Statistical Analysis of the Structure Registry at Chemical Abstracts Service.
3:45-10. H. F. GINSBERG, R. F. Schmitz, W. K. Holman, M. D. Hall. Computer Aids in the Evaluation of Indexing Terminology.

TUESDAY MORNING

Preliminary Symposium on Scientific Meetings: Considerations about Present and Future Communication within the Chemical Literature Division

C. K. Schultz, Presiding

- 9:00- C. K. Schultz. Introductory Remarks.
9:10-11. C. K. Schultz. Present and Future Communication of the Chemical Literature Division—Some Considerations
12:00

TUESDAY MORNING (Continued)

12. P. L. Garwig. The Relation of the Division of Chemical Literature to Other Documentation Groups.
13. R. S. Tannehill, Jr. How the Chemical Literature Division Communicates.

TUESDAY AFTERNOON

General

J. H. Clark, Presiding

- 2:00- J. H. Clark. Introductory Remarks.
2:05-14. D. O. Myatt. Formal Chemical and Chemical Engineering Data Efforts of National Significance—An Interim Report on the Cosati Data Census Project.

Open Meeting of the Committee on Chemical Documentation

H. Kissman, Presiding

- 2:35- H. M. Kissman. Introductory Remarks.
3:45- Divisional Business Meeting.
5:30- Divisional Social Hour.

WEDNESDAY MORNING

Symposium on Advances in Handling and Searching Chemical Structures and Properties

D. Gould, Presiding

- 9:00- D. Gould. Introductory Remarks.
9:10-15. W. S. Hoffman. An Integrated Chemical Structure Storage and Search System Operating at Du Pont.
9:40-16. R. E. STOBACH, W. H. Powell, R. J. Zalac. Systems for Registering and Naming Polymers at Chemical Abstracts Service.
10:00-17. D. P. JACOBUS, E. Neuschatz, L. Schultz, W. C. Hoida. Experience with the Mechanized Biological Information Service.
10:30-18. D. P. JACOBUS, D. E. Davidson, Jr., A. Feldman, J. A. Schafer. Experience with the Mechanized Chemical and Biological Information Retrieval System.
11:00-19. C. H. Hansch. Some Notes on the Use of Computers in Drug Research.