

This, then, is the basic information which can be used to guide decision making with regard to preprint publication. The cost figures which have been used are, to the best of my knowledge, reasonable approximations of what can be achieved in today's market. In some special situation where the print order and the number of pages is much smaller than average, or where there is an unusual amount of chart and photographic material to be reproduced, the costs will run higher.

In summary, a minimum preprint program can be achieved at a cost of little more than \$1.00 per copy. To do this, concessions must be made to editorial quality and appearance, but at little sacrifice to the usefulness of a preprint as a preprint. Whether these concessions are acceptable in preprints as part of the permanent literature remains an unanswered question.

Advances in Chemistry Series as a Publication Outlet for Divisions*

By ROBERT F. GOULD

American Chemical Society, Washington 6, D. C. Received September 26, 1962

Most journals dislike printing symposia, especially when they contain review papers. Twelve years ago many ACS meeting symposia never were published as units. Selected papers might be published in various journals, but the rest fell by the wayside. Fragmentation was the general rule, and the divisions sponsoring the symposia were getting disturbed about it.

The ACS Applied Publications met this situation by founding "Advances in Chemistry Series" as an outlet for collections of papers and data that were too big or too diverse for publication in journals but were still worth preserving and publishing as units. For the ten years following 1950, volumes appeared at about the rate of two or three per year. Most of these volumes were symposia sponsored by the Division at ACS national meetings. Since the present editor assumed responsibility for this series in 1961, the rate has been accelerated. Six volumes appeared in 1961. So far in 1962 two volumes have appeared, and four others are working.

So far, volumes have been published in this series for 14 of the divisions. Ag and Food has sponsored or cosponsored eight; Chemical Literature, six; Petroleum, I&EC, and Colloid, three each; Medicinal and Inorganic, two each; Analytical, Carbohydrate, Chemical Education, Chemical Marketing, Organic, Organic Coatings, and Water have each had one volume. Eight Divisions have not taken advantage of the opportunities offered by "Advances in Chemistry Series," but of these three publish their papers as preprints.

Volume 36 is a preprint of a division symposium that has just been published in the "Advances in Chemistry Series," It is the symposium on "Free Radicals in Inorganic Chemistry" that is being sponsored by the Division of Inorganic Chemistry at this meeting. Let me tell you a little about the schedule under which this was produced. The first contact on this symposium was a letter last December 27 to Dr. Charles B. Colburn of Redstone Arsenal. In this letter I noted that Dr. Colburn was Symposium Chairman and invited him to consider "Advances" as an outlet for his papers. This is similar to the letter I send to every symposium chairman as soon as his program is announced and where there seems to be a good likelihood that the symposium would be one we could publish in "Advances in Chemistry Series." Dr. Colburn responded immediately and agreed to explore the matter with his authors. While the symposium chairman is the first point of contact, it is the authors who have to decide whether the symposium will be published one way or another.

After exploring the matter on both sides, we confirmed the agreement on March 7th to publish the symposium with a deadline for papers of May 1. The first papers arrived in my office on April 30 and the others soon afterward. All papers were reviewed at least twice by reviewers chosen in this office. Some reviewers suggested revisions, and these revisions were effected on schedule. Only one author failed to get his manuscript in on time so that the symposium as printed here represents $^{17}\!\!/_{18}$ or 95% of the symposium that will be presented during the next several days. Copies were delivered by the printer on Aug. 21 and are on sale here at the meeting.

This particular book has an index because we had the editorial time available to do it. We don't always have this time, and we are not yet certain that indexes are

^{*} Presented before the Division of Chemical Literature. ACS National Meeting. Atlantic City, N. J., September 10, 1962.

worth the expense, but this one and several others that we have published in the past several years do have indexes.

You will note that this set of preprints was published on a four months schedule. This is almost as good a schedule as the preprint books that are published with volunteer help by divisions. The main differences are that these papers are critically reviewed and that this volume represents final publication. As a result, the papers in the book will be abstracted promptly and individually in "Chemical Abstracts," just as though they were published in a journal.

All volumes in "Advances in Chemistry Series" are published on a three or four months schedule from the date of receipt of the last paper. Sometimes the papers do not come in all at once, and our schedule has dragged out more than we want it to, but if we receive all the papers very promptly, prompt publication can be assured. In addition, authors may order reprints of their articles.

Criteria by which titles are judged for "Advances in Chemistry Series" are:

- A chemical theme that is not over-populated by books that are currently available.
- 2. A relatively homogeneous collection of papers reflecting satisfying coverage of the topic embraced by the title.
- 3. Papers that have not been published elsewhere.
- Market potential that will allow the edition to break even at a reasonable price per volume.

The reason for the last criterion is that "Advances in Chemistry Series" is an unsubsidized operation. It must be self-supporting. If the funds that are invested in a volume are not returned through sales, there will be that much less to produce later volumes, and so on to bankruptcy. Prices of individual volumes vary, depending on size and market. Some volumes in the "Series" have a lower market potential than would be required by a commercial publisher, and this is reflected in their prices. But even these prices are reasonable in today's market. Prices of current volumes reflect the fact that the books were published without a guaranteed market. If a division wished to order copies of a volume for all its members, savings could be made. Bulk orders in advance of publication, which amounts to minimum guaranteed distribution, would insure lower unit prices.

In summary, "Advances in Chemistry Series" offers a medium for the divisions to publish symposia promptly as permanent literature. Publication in "Advances" is more rapid than in most journals. Papers published in the "Series" have a standing equivalent to the journals and are recognized by immediate abstracting in CA. Volumes in the "Series" are printed in a convenient and attractive format with journal-quality printing. Finally, papers and symposia published in "Advances in Chemistry Series" are readily available as part of the chemical literature because the "Series" is recognized and regularly shelved by leading academic and industrial libraries.

The Place of Preprints in the Chemical Literature*

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Received August 20, 1962

Based on a sampling of the papers presented at the September, 1955, Meeting of the American Chemical Society, 21% of the papers had not appeared in print within 5 years of the meeting dates. This agrees fairly well with a study of the April, 1957, Meeting which showed that 26% of the papers of selected divisions were neither published in ACS journals nor recorded as released for publication.

Preprints make up only a small portion of ACS Meeting papers, but the proportion is growing each year. This trend will continue as other divisions start to issue preprints. It is expected that 1962 will show the largest total yet. The size of the problem is shown by the fact that 1198 preprinted papers have been delivered at ACS

National Meetings from January, 1958, through April, 1962. During this period two more divisions started to issue preprints. However, based on some counts which we have made recently on preprints of four ACS divisions for the years 1958-60, 334 of the total of 757 papers have not yet appeared in the formal literature.

Irretrievability of so much data is a serious problem to all chemists. This paper treats one aspect of the preprint problem. The problem is, however, not limited to ACS Meetings or to meeting papers. It is more general. It relates to all informal literature including abstracts of ACS Meeting papers, governmental reports, and academic theses. Though the following remarks are directed to ACS preprints, they are generally applicable to all informal literature.

Chemical Abstracts does not offer a critical review of the world's chemical literature. It does try to cover all new technical chemistry; it does not cover economics, formulation studies (not including chemical reaction), mechanical testing, or shaping of materials. "New" is, however,

^{*} Presented before the Division of Chemical Literature, ACS National Meeting, Atlantic City, N. J., September 10, 1962.

⁽¹⁾ H. Friedman. Chemical Abstracts Service, unpublished study. This study was based on a review through CA's Author Indexes. As some of these papers would possibly not be covered by CA even if published, this figure is somewhat high.

⁽²⁾ Office of the Director of Planning, ACS Fundamental Journals, unpublished study.