

Chemical Reviews

Volume 74, Number 2 April 1974

Chemical Reviews. A Fiftieth Anniversary

HAROLD HART

Department of Chemistry, Michigan State University, East Lansing, Michigan 48824

With this issue, *Chemical Reviews* celebrates its fiftieth anniversary, providing an occasion to look back upon its history¹ and to look forward to its future.

The first issue of *Chemical Reviews* appeared in April 1924, under the editorship of Professor William A. Noyes, then professor of chemistry and director of the chemical laboratory at the University of Illinois. The journal received an auspicious send-off, with four articles by some of the most distinguished chemists of the time: "Atomic Weights and Isotopes" by T. W. Richards, "The Constitution of Polysaccharides" by J. C. Irvine, "The Theory of Membrane Equilibria" by F. G. Donnan, and "Organic Radicals" by M. Gomberg. Chemistry has developed to such an extent during the past fifty years that these topics would now more likely appear as the subjects of monographs rather than review articles. Yet the original goal of the journal, to provide a medium for the publication of comprehensive and critical reviews on topics of interest to chemists, has remained useful over the years.

Chemical Reviews has had five editors during its first fifty years. Professor Noyes edited the first four volumes, then retired in favor of Dr. Gerald Wendt, Dean of the School of Chemistry and Physics at Pennsylvania State College (now University). At that time the journal was a quarterly. In 1931 manuscript pressure resulted in a decision to publish two volumes per year instead of one, and the following year the publication frequency was increased to its present bimonthly rate. Dr. Louise Kelley, then head of the chemistry department at Goucher College in Baltimore, became assistant editor, a position she held for thirty years. Dr. Wendt served for eleven years (Volumes 5–23) and was succeeded in 1939 by Professor W. Albert Noyes, Jr., then head of the chemistry department at the University of Rochester. Professor Noyes, Jr., also served for eleven years, resigning at the end of 1949 (Volumes 24–45) to become editor of the *Journal of the American Chemical Society*. Professor Ralph Shriner, then professor of organic chemistry at the State University of Iowa, served the longest term as editor, from 1950 through 1966 (Volumes 46–66).² In 1954, with Volume 54, *Chemical Reviews* returned to publishing just one vol-

ume a year, with the volume and year numbers in correspondence. This accounts for the rather odd situation that the journal begins its fifty-first publication year with Volume 74. In 1962 Professor Allen D. Bliss of Simmons College (Boston) succeeded Professor Kelley as assistant editor, but served in this capacity for only one year. Since 1963 the journal has functioned without an assistant editor, the technical aspects of the editing now being handled by Ms. Eileen Segal, Production Editor. The author of this article succeeded Professor Shriner as editor, in 1967.

The ACS Board of Directors minutes of April 21, 1924, contain the item that the Board "voted to approve the proposition of the Williams and Wilkins Company for the publication of *Chemical Reviews*"; the ACS incurred no financial responsibility for the journal but maintained ownership and editorial control. This arrangement lasted for thirty-six years, but in 1960 the Society assumed full responsibility and since that time all business matters and subscriptions have been handled in the same manner as for other ACS journals. Current subscriptions are over 5500, which enables *Chemical Reviews* to provide some net revenue to the ACS publication program.

In 1968 the American Chemical Society launched a second review journal, *Accounts of Chemical Research*, to contain concise reviews of research areas under active investigation by their authors. Close cooperation between the editors of the two journals has ensured the complementary nature and success of each.

What are the prospects for the future of review journals? As a consequence of the general literature growth, there has been a dramatic increase in the number and variety of review media. In addition to the leading review journals (such as *Chemical Reviews*, *Chemical Society Reviews*, *Angewandte Chemie*, *Russian Chemical Reviews*, and *Accounts of Chemical Research*) and more specialized reviews (such as *Annual Review of Physical Chemistry* or *Annual Review of Biochemistry*), we have seen the rise of numerous hard bound, monograph-like series which usually carry titles such as "Advances in . . .," or "Progress in" Such series have become attractive to authors and editors for several reasons. That they are hard may, in the author's mind, lend some feeling of permanence to his contribution, more perhaps than if the same chapter were to appear as an article in a review journal. The author also has the prestige of association—his article is included with those of his esteemed peers. Finally, the author receives some financial return

(1) A more detailed description of the founding of *Chemical Reviews* than is presented here can be found in an article by R. L. Shriner which appeared on pages 406–409 of a "History of the American Chemical Society," published on the occasion of the 75th birthday of the ACS.

(2) An appreciation to Professor Shriner, prepared by his long-time colleague Professor R. C. Fuson, appears at the beginning of Volume 67 of *Chemical Reviews*.

for his effort, although this is usually far from commensurate with the time and energy expended.

Although such monographs have sometimes provided an excellent medium for specialized reviews, I believe that they are not without some serious drawbacks that can be avoided by the review journals. For one, they are extremely expensive. An article in *Chemical Reviews* or one of the other major review journals may cost the subscriber as little as one-fifth the cost of the same length article bound in an *Advances in . . .* series. The difference is partly due to printing costs and partly to the requirement that commercial publishers make a profit; only a small fraction of the added cost is due to the editor's or author's royalties. Yet these royalties are an attraction to the author, and it is now the policy of *Chemical Reviews* and several other review journals to present their authors with a modest honorarium as a token of appreciation for their service to the profession.

Review journals are usually subscribed to by most libraries where they will be used. Frequently the same libraries will fail to secure one or another of the review monograph series—this is particularly true of smaller libraries—partly through oversight in ordering and partly because of cost. There can be little doubt that an author's critical review will have a wider circulation and a greater chance for a permanent home in the world's libraries if it appears in a well-established review journal.

Finally, publication time can be much shorter in review journals than in bound volumes. One does not have to wait for tardy authors, and journal issues appear at regular intervals. The time saved varies from 6 to 15 months, an important factor if the review is not to be dated or lose its impact before it appears in print.

For these reasons, there is much to be gained both by authors and by subscribers who preferentially patronize review journals as media for publishing critical reviews.

The need for critical reviews is greater now than ever before. Choice of subject, author, and publication medium have an important influence on how effective a critical review will be in its impact on the scientific community. Important criteria in selecting a subject are timeliness, breadth of interest, and a new view or unconventional organization which will cut across usual disciplines. Authors preferably should be established investigators familiar with the nuances of the subject, or bright young investigators just initiating research in the topic being reviewed.³ Reviews can be published faster, less expensively, and distributed more widely in review journals than in bound monograph series.

If these guidelines continue to be followed, surely *Chemical Reviews* can look forward to a healthy future.

(3) H. Hart, *J. Chem. Doc.*, **8**, 241 (1968).