

Organic Reactions

VOLUME 35

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PREFACE TO THE SERIES

In the course of nearly every program of research in organic chemistry the investigator finds it necessary to use several of the better-known synthetic reactions. To discover the optimum conditions for the application of even the most familiar one to a compound not previously subjected to the reaction often requires an extensive search of the literature; even then a series of experiments may be necessary. When the results of the investigation are published, the synthesis, which may have required months of work, is usually described without comment. The background of knowledge and experience gained in the literature search and experimentation is thus lost to those who subsequently have occasion to apply the general method. The student of preparative organic chemistry faces similar difficulties. The textbooks and laboratory manuals furnish numerous examples of the application of various syntheses, but only rarely do they convey an accurate conception of the scope and usefulness of the processes.

For many years American organic chemists have discussed these problems. The plan of compiling critical discussions of the more important reactions thus was evolved. The volumes of *Organic Reactions* are collections of chapters each devoted to a single reaction, or a definite phase of a reaction, of wide applicability. The authors have had experience with the processes surveyed. The subjects are presented from the preparative viewpoint, and particular attention is given to limitations, interfering influences, effects of structure, and the selection of experimental techniques. Each chapter includes several detailed procedures illustrating the significant modifications of the method. Most of these procedures have been found satisfactory by the author or one of the editors, but unlike those in *Organic Syntheses* they have not been subjected to careful testing in two or more laboratories.

Each chapter contains tables that include all the examples of the reaction under consideration that the author has been able to find. It is inevitable, however, that in the search of the literature some examples will be missed, especially when the reaction is used as one step in an extended synthesis. Nevertheless, the investigator will be able to use the tables and their accompanying bibliographies in place of most or all of the literature search so often required.

Because of the systematic arrangement of the material in the chapters and the entries in the table, users of the books will be able to find information desired by reference to the table of contents of the appropriate chapter. In the in-

terest of economy the entries in the indices have been kept to a minimum, and, in particular, the compounds listed in the tables are not repeated in the indices.

The success of this publication, which will appear periodically, depends upon the cooperation of organic chemists and their willingness to devote time and effort to the preparation of the chapters. They have manifested their interest already by the almost unanimous acceptance of invitations to contribute to the work. The editors will welcome their continued interest and their suggestions for improvements in *Organic Reactions*.

Chemists who are considering the preparation of a manuscript for submission to *Organic Reactions* are urged to write either secretary before they begin work.

A. HAROLD BLATT
January 9, 1903–March 19, 1986

A. Harold Blatt, long-time Secretary to the Editorial Board of *Organic Reactions* and Treasurer of *Organic Reactions, Inc.*, died on March 19, 1986 in Melbourne, Florida at the age of 83 as a result of a stroke.

Harold Blatt was born in Cincinnati, Ohio and received his academic training at Harvard University; he was awarded the B.S. degree in 1923, the M.A. degree in 1925, and the Ph.D. degree in 1926. After stays at the Collège de France in Paris, Harvard University, and the University of Buffalo as a research associate, Professor Blatt joined the faculty at Howard University as Associate Professor in 1932. In 1939 he went to the newly formed Queens College (now part of The City University of New York), where he left a lasting imprint with respect to the appreciation of quality in education and scholarly activity. His teaching and research efforts were interrupted during World War II, when he worked in the Office of Scientific Research and Development. His work on projects related to the war effort was recognized by the awarding of the Presidential Certificate of Merit and the Naval Ordinance Award. Harold Blatt's book with James Bryant Conant, *The Chemistry of Organic Compounds*, was widely used as an introductory text in the 1940s and 1950s and was reprinted in Spanish and French. Professor Blatt was elected Chairman of the Chemistry Department at Queens College for three consecutive terms beginning in 1961. He retired in 1971 after 32 years of distinguished service, and he received the Distinguished Teacher of the Year Award in 1972 from the Alumni Association. His students and colleagues remember him fondly as a scientist whose enthusiasm for continued learning in chemistry was inspiring. Many of his scientific contributions are still being cited; notable examples are his work in the field of oxime chemistry and his review of the Fries reaction in Volume 1 of *Organic Reactions*.

After he retired from Queens College, Harold Blatt moved to Melbourne, Florida, where he helped to organize the new Chemistry Department at the Florida Institute of Technology.

Harold Blatt's work with *Organic Syntheses* and *Organic Reactions* began in 1937 and 1944, respectively. His colleagues on the Editorial and Advisory Boards of *Organic Reactions* and *Organic Syntheses* remember him for his highly dedicated work, sharp editorial eye, and the magnificent wit with which he in-

duced authors of errant phrases to mend their ways. Many of the younger editors relied on Harold Blatt's advice and even acquired part of his clear, concise writing style from their work with him. Since Harold Blatt was primarily responsible for establishing how the detailed tabular surveys of *Organic Reactions* chapters should be set up, he has left us with a heritage to follow in terms of editorial style and format.

Professor Blatt is survived by his son, Dr. Joel Blatt, and a sister.

ROBERT BITTMAN

FRANK C. MCGREW

January 28, 1914–November 20, 1986

Frank C. McGrew, member of the Advisory Board of *Organic Reactions*, died on November 20, 1986 in San Francisco, California at the age of 72 while undergoing surgery for an aneurysm.

Frank was born in Seward, Nebraska. He attended the University of Nebraska, receiving a B.S. degree in 1933 and an M.S. degree in 1934 under Professor Cliff S. Hamilton. In 1937 he was awarded a Ph.D. degree in organic chemistry at the University of Illinois under Professor Roger Adams. He joined the Chemical Department (later the Central Research Department) of Du Pont at the Experimental Station outside Wilmington, Delaware, where his research interests turned to polymer chemistry. In 1950 he was transferred to Du Pont's Polychemicals Department, which was responsible for a significant share of Du Pont's synthetic polymer business, as assistant director of research, and became its director of research in 1958. He moved to Geneva, Switzerland, in 1964 as director of technical and business analysis for Du Pont's International Department. He retired in 1972 and entered the consulting business. He remained in Geneva until moving to Kennett Square, Pennsylvania, in 1986.

Frank served on the Science Advisory Panel for the Army from 1958 to 1964, and was a civilian associate with the Office for Scientific Research and Development. Frank had what Kipling called "satiabile curiosity"; he dug deeply into any subject that intrigued him, always wanting to satisfy himself that he understood why things were so. His deep interest in the relationships between chemical structure and properties of polymers led him to establish in the Polychemicals Department an outstanding program of research in fundamental polymer science. He had a keen eye for technical talent, and some of the people he put into that program became world-recognized experts in their branches of polymer science. Frank also had a strong practical streak. His department made the nylon intermediates adipic acid and hexamethylenediamine, the latter from the former. Frank figured that hexamethylenediamine could be made at lower cost by anti-Markownikov addition of hydrogen cyanide to butadiene, followed by hydrogenation of the 1,4-dicyano-2-butene. He initiated a project that eventually succeeded in accomplishing this unusual addition and that became the basis for a low-cost commercial process.

Frank served on the Editorial Board of *Organic Reactions* from 1950 to 1959. After moving to the Advisory Board, he maintained an active interest in *Organic Reactions*, even after moving to Geneva.

Frank is survived by his wife Helga, of Geneva; two sons, Michael A. of Columbus, Ohio, and Patrick F. of Geneva; two daughters, Carol P. Getty of Kansas City, Missouri and Mary M. Lee of Rehoboth Beach, Delaware; three sisters, Betty Shroeder of Edwards, Missouri, Nelda Chrisman of Lodi, California, and Carol Jones of Seward, Nebraska; and eight grandchildren.

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