

annual reports in organic synthesis—1975

edited by R. Bryan Miller and L.G. Wade, Jr.

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edited by

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R. Bryan Miller and L. G. Wade, Jr., Eds.

PREFACE

One of the most difficult problems facing chemists today is that of "keeping up with the literature." For several reasons, the problem is particularly severe for the synthetic organic chemist. Bits of information of potential use to the synthetic chemist are scattered throughout common chemistry journals and can be found in any paper, not just those dealing strictly with synthesis. Thus a synthetic chemist must read a large number of journals. He must organize and index what he reads to make the information available for future reference. All synthetic chemists do this; but the task is becoming more difficult each year as the flow of information increases.

The problem however is shared to some extent by all. Most organic chemists are at some time faced with the problem of synthesizing a desired material, and for many, the problems encountered are formidable. Nonspecialists faced with a synthetic problem are most likely not to have kept pace with the developments in synthetic chemistry that may well solve their problems and will not have the necessary information in their files.

Thus, we felt that an organized annual review of synthetically useful information would prove beneficial to nearly all organic chemists, both specialist and nonspecialist in synthesis. It should help relieve some of the information-storage burden of the specialist and should aid the nonspecialist who is seeking help with a specific problem to become rapidly aware of recent synthetic advances. Ideally also, such a review should be minimally priced to be within the means of potential users including graduate students, and it should appear as promptly as possible after the close of the abstracting period.

In producing *Annual Reports in Organic Synthesis-1975* we have abstracted 47 primary chemistry journals, selecting useful synthetic advances. We have tried to present the information in an organized manner, emphasizing rapid visual retrieval. Only the common journals received by our libraries have been abstracted. Any journal received after March 1, 1976 will be covered in the next volume. We have also exercised selectivity in choosing which papers to abstract. Our general guidelines have been to include all reactions and methods that are new, synthetically useful, and reasonably general. Each entry comprises primarily structures, accompanied by very few comments. The purpose of this is to aid the reader in scanning the book. The mind is capable of absorbing a whole picture in an instant, but is considerably slowed by having to read sentences. If the pictures presented catch the reader's interest, he should then seek details from the original paper.

There is no index. To include one would have greatly increased both the cost of the book and the delay time before publication. Instead, we have chosen to

PREFACE

use an extensive table of contents. The first three chapters are organized by reaction type and constitute the major part of the book. The organization of these sections is self-explanatory, and there should be no difficulty in locating a new method of oxidation or a new cyclopropanation procedure. The fourth chapter deals with methods of synthesizing heterocyclic systems. Chapter V covers the use of new protecting groups and is also self-explanatory. Chapter VI is divided into three main parts and covers those synthetically useful transformations which do not fit easily into the first three chapters. The first part deals only with functional group synthesis. The second and third parts of Chapter VI are self-explanatory. The third part involves useful multistep sequences, the individual steps of which may be well known. Future volumes of this series will maintain the present table of contents as much as possible. If no entry is found for a particular section, the last volume in which one appears will be cited in the table of contents—see II.C. C-N Oxidations.

Any undertaking of this type involves a series of compromises. We have chosen to emphasize reasonable cost, rapid publication, and rapid visual retrieval of information at the admitted expense of detail and beauty. This volume is the sixth in an annual series. We welcome suggestions for improvement of future volumes.

The arduous task of drawing the multitude of structures appearing in this review was carried out by Ms. Linda Benedict and Ms. Sandi Hanson. We thank them very much for their efforts.

R. Bryan Miller
L. G. Wade, Jr.

JOURNALS ABSTRACTED

Accounts of Chemical Research
Acta Chemica Scandinavica
Angewandte Chemie International Edition in English
Annales de Chimie
Australian Journal of Chemistry
Bulletin of the Chemical Society of Japan
Bulletin des Societes Chimiques Belges
Bulletin de la Societe Chimique de France
Canadian Journal of Chemistry
Chemical Communications
Chemical and Pharmaceutical Bulletin
Chemical Reviews
Chemical Society Reviews
Chemische Berichte
Chemistry and Industry
Chemistry Letters
Collection of Czechoslovakian Chemical Communications
Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences (C)
Doklady Chemistry
Endeavour
Experientia
Fortschritte der Chemischen Forschung
Gazzetta Chimica Italiana
Helvetica Chimica Acta
Indian Journal of Chemistry
Intrascience Chemistry Reports
Israel Journal of Chemistry
Journal of the American Chemical Society
Journal of the Chemical Society (Perkin I)
Journal of the Chemical Society (Perkin II)
Journal of General Chemistry (USSR)
Journal of Heterocyclic Chemistry
Journal of Organic Chemistry
Journal of Organic Chemistry (USSR)
Journal of Organometallic Chemistry
Journal fur Praktische Chemie
Liebig's Annalen der Chemie
Monatshefte fur Chemie
Pure and Applied Chemistry

JOURNALS ABSTRACTED

Recueil des Travaux Chimiques des Pays-bas
Russian Chemical Reviews
Steroids
Synthesis
Synthetic Communications
Tetrahedron
Tetrahedron Letters
Zeitschrift für Chemie

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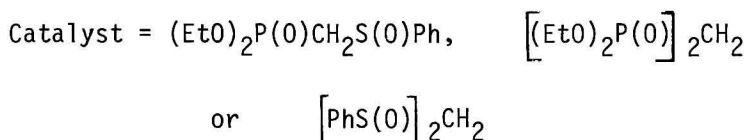
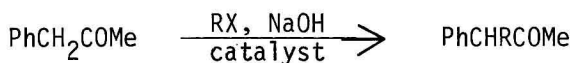
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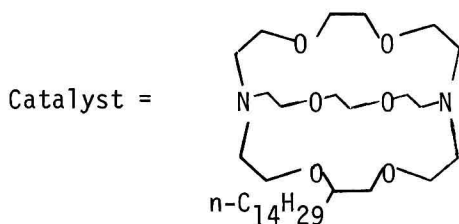
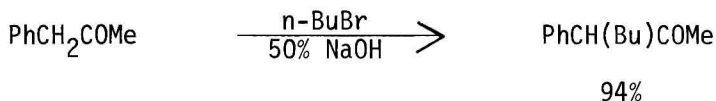
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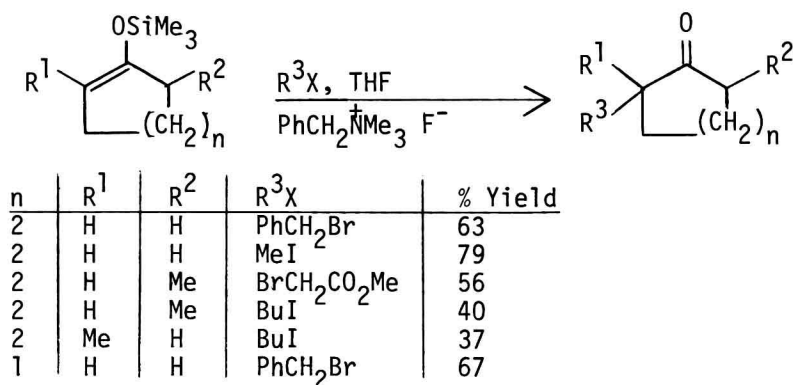
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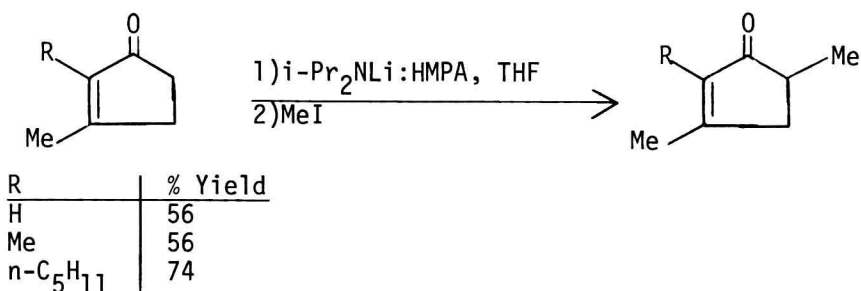


The aza-macrobicyclic polyethers are efficient catalysts in phase transfer reactions.

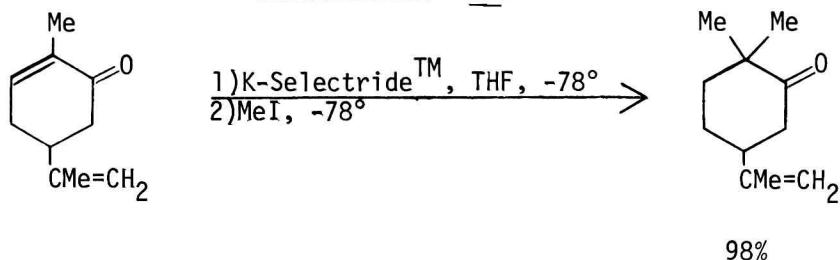
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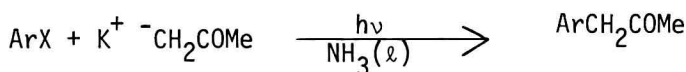
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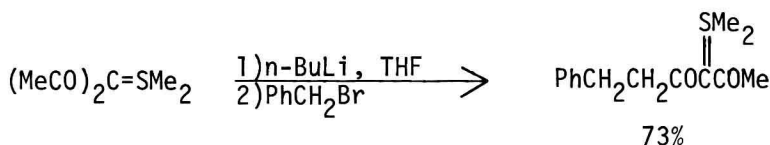


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