Organic photochemistry

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GENERAL EDITORS

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Professor of Chemistry
Pennsylvania State University

J. Lewis
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University of Cambridge

K. Schofield
Professor of Organic Chemistry
University of Exeter

J. M. Thomas
Professor of Physical Chemistry
University of Cambridge

B. A. Thrush
Professor of Physical Chemistry
University of Cambridge
Organic photochemistry

J.M. Coxon
University of Canterbury, NZ

B. Halton
Victoria University of Wellington, NZ

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PREFACE TO THE FIRST EDITION

The use of light to effect chemical change has been recognised for many years, but it is only recently that sufficient knowledge has been attained to place photochemical reactions in the realm of organic synthesis. The recent application, by Woodward and Hoffmann, of the principle of conservation of orbital symmetry to concerted reactions has made an important contribution to the understanding of many photochemical processes. This book has been written to provide an introduction to the principles and applications of organic photochemistry at a level suitable for senior undergraduate and graduate students in universities and technical institutes. It is not intended to provide an exhaustive survey of the field but rather to provide the student with an up-to-date background of the subject, on which a more detailed study can be based.

The authors gratefully acknowledge many helpful comments from Dr K. Schofield. We also thank Dr B. G. Odell for critically reading the entire manuscript, and Professors M. F. Grundon and J. Vaughan, and Dr M. P. Halton and Mr A. D. Woolhouse for many helpful suggestions. Any errors are the sole responsibility of the authors. Finally we thank our wives.

J. M. C.  
B. H.

New Zealand, 1972
PREFACE TO THE SECOND EDITION

In the decade since this book first appeared research involving organic photochemistry has been prolific. In this edition we have attempted to summarise those classes of reaction which best illustrate the types of photochemical behaviour commonly observed for simple organic molecules. Wherever possible reference is given to review-type material for the student or teacher wishing to pursue the topic in more detail; the annual Royal Society of Chemistry specialist periodical report Photochemistry provides an excellent route to the primary literature for those who seek such detail.

We anticipate that the use of lasers to investigate photochemically induced reactions will become more common in the next ten years. Thus much more detailed information on known reactions and of specific excited states and their chemistry is likely to become available.

The authors acknowledge many helpful comments from Professor K. Schofield. We also thank Dr P. J. Steel and Dr M. P. Halton for reading the manuscript and for their constructive suggestions. We also appreciate the many helpful and encouraging comments from colleagues around the world who have used the first edition for their courses.

J. M. C.

B. H.

New Zealand, 1986