

Preface

The part of pericyclic and photochemical reactions is the cornerstone of organic chemistry of the 20th century. Critical understanding of the principles of these reactions will be useful to design the synthesis of enormous organic compounds with high yields maintaining regio- and stereoselectivity. In this book, utilizing my long teaching experience, I have aimed to present the basic principles of pericyclic and photochemical reactions in the student's comprehension by citing numerous examples with references to develop a thorough and sound sense of actuality on the subject. Literature citations throughout the text will be helpful to the students and teachers, who want to get the access to the original work of the factual material. This book is not designed to be comprehensive with respect to the experimental details and evidences on which the reaction mechanisms are based. The main objectives of this book are to develop a broad understanding and scientific thinking of the students on the subject. The book will help teachers to motivate students in their scientific imagination on the subject for new application in industrial fields avoiding hazardous chemicals. A large number of excellent and representative problems at the end of each chapter and their answers in Appendix-1 of the book will help the students for their self-evaluation on the lessons of the chapter.

This book is basically designed for the students of postgraduate and M. Phil levels. However, the students of upper undergraduate levels in chemistry may use it for advancement of their knowledge on the subject. The book will also be useful for students to compete for different qualifying examinations after postgraduation.

I have consulted three excellent books, Advanced Organic Chemistry by F. A. Carey and R. T. Sundberg, Pericyclic Reactions by I. Fleming and Principles and Applications of Photochemistry by B. Wardle at several points in writing this book.

I wish to acknowledge the technical assistance of my students, Dr. Saikat Das Sarma, Dr. Rajarsi Banik, Dr. Indrajit Sil Sarma, Dr. Prasenjit Rudrapaul, Smt. Ankita Chakraborty, Sri Sukhen Bhowmik, Sk. Nayim Sepay, Sri Subhadip Roy, Sri Arnab Bhattacharya and my son, Dr. Subhajit Dinda for typing of the major part of the manuscript.

I would appreciate to receive the letters from teachers and students on errors, questions, criticisms and suggestions on this book so that I may improve this book in the forthcoming edition.

Finally, I like to acknowledge to my wife, Chitralekha, and our children, Subhajit and Manikarna, and son-in-law Shekhar for their constant encouragement and patient endurance. I am grateful to my publishers for their support and interest in this endeavour.

Agartala, Tripura, India
January 2016

Biswanath Dinda

Essentials of Pericyclic and Photochemical Reactions

Dinda, B.

2017, XXV, 350 p. 69 illus., 4 illus. in color., Hardcover

ISBN: 978-3-319-45933-2