

SECOND EDITION

Chemical Stability of Pharmaceuticals

A HANDBOOK FOR PHARMACISTS

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**Chemical Stability
of Pharmaceuticals**

A Handbook for Pharmacists

Second Edition

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To the memory of Lloyd Kennon

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Preface

Pharmaceutics instruction in the pharmacy curriculum provides pharmacists with (among other kinds of knowledge) a sound theoretical basis for understanding chemical kinetics and its uses in studying drug stability. This is a research application of kinetics in pharmacy, and it is entirely appropriate that the pharmacist be aware of the methods used (primarily in the pharmaceutical industry) to assess and control drug and dosage form stability. There is, however, another area of pharmacy in which a knowledge of kinetics can be usefully applied: this is the area of professional practice. Teachers of pharmaceutics have not been highly successful, it seems to us, in developing this application. The purpose of this book is to assist the pharmacist in applying kinetic methods and data to stability problems in professional practice.

The way from theory to practice is not always easy or obvious. Part One of this book treats the calculations, approximations, and estimates that are useful in practical situations. Part Two is a collection of selected drug-stability data from the literature. Although it is clearly not encyclopedic, this collection makes readily accessible to the pharmacist much of the information necessary to make pharmaceutical decisions about drug stability. It has been interesting to learn, in the several years since the first edition appeared, that research pharmacists in the pharmaceutical industry also have found the book useful, primarily because of the data presented in the stability monographs.

In this second edition the principal changes are a thorough revision of the chapter on oxidation, addi-

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