

BIOCHEMICAL PHARMACOLOGY AND TOXICOLOGY
A SERIES OF MONOGRAPHS

BIOACTIVATION OF FOREIGN COMPOUNDS

Edited by

M.W. Anders

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Preface

The elucidation of the understanding of the mechanisms by which chemicals produce toxic effects is a challenge to pharmacologists, toxicologists, and biochemists. Although significant gaps in our knowledge remain, work in many laboratories over the past two decades has shown that the metabolic alteration, or bioactivation, of chemicals—either to stable, but toxic, metabolites or to reactive electrophiles—is necessary for the elicitation of a toxic response.

This volume in the Biochemical Pharmacology and Toxicology series aims to summarize the body of knowledge on chemical bioactivation. The introductory chapters deal with historical developments and with factors that affect all chemicals. The emphasis of the remainder of the volume is on the mechanisms of bioactivation of chemical classes. These chapters provide information on biochemical reaction mechanisms and the fate of toxic metabolites. The enzymology of bioactivation enzymes has been treated briefly because this was the subject of earlier volumes in this series (*Enzymatic Basis of Detoxication*, Volumes I and II, edited by W. B. Jakoby, Academic Press, 1980).

The biochemical view presented in this work should enhance our ability to predict bioactivation mechanisms for new compounds and to make better judgments on the hazards posed by exposure to chemicals.

M. W. Anders

Contents

Contributors	xi
Preface	xv

PART I. INTRODUCTION

1. Some Historical Perspectives on the Metabolism of Xenobiotic Chemicals to Reactive Electrophiles

Elizabeth C. Miller and James A. Miller

I. Introduction	3
II. Early Evidence for the Conversion of Chemical Carcinogens to Protein- and Nucleic Acid-Bound Derivatives	4
III. Early Studies on the Metabolism of Foreign Chemicals by Enzymes of the Endoplasmic Reticulum and on the Inducibility of Some of These Enzymes	7
IV. Early Examples of Metabolic Activation: The Concepts of Pro-Drugs and Lethal Synthesis	10
V. Experimental Demonstration That 2-Acetylaminofluorene Is a Procarcinogen	10
VI. Early Data on the Metabolic Formation of Electrophilic Aromatic N-O Derivatives	11
VII. Central Role of Electrophilic Reactants in Carcinogenesis, Mutagenesis, and Some Other Toxic Manifestations by Chemicals	15
VIII. Looking Ahead	17
References	19

2. Pharmacokinetics of Biological Activation and Inactivation of Foreign Compounds

James R. Gillette

I. Introduction	30
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II. Fundamental Pharmacokinetic Concepts	32
III. Concentration of the Parent Compound in Arterial Blood after Different Routes of Administration	48
IV. Concentration of the Parent Compound in Blood Exiting Various Organs in the Central Compartment after Different Routes of Administration	50
V. Kinetics of the Formation of Chemically Reactive Metabolites by Organs in the Central Compartment	54
VI. General Comments	69
References	70

3. Cellular Defense Mechanisms against Reactive Metabolites

Donald J. Reed

I. Introduction	71
II. General Concepts of Protection	72
III. Types of Protection	75
IV. Cellular Aspects of Protection	88
V. Comments	96
References	97

PART II. BIOACTIVATION BY CHEMICAL CLASS

4. Alkanes

James S. Bus

I. Introduction	111
II. Alkane Toxicity	112
III. Alkane Bioactivation	112
IV. Toxic Mechanisms of the γ -Diketones	116
References	119

5. Alkenes and Alkynes

Paul R. Ortiz de Montellano

I. Introduction	121
II. Oxidative Chemistry of Olefins and Acetylenes	122
III. Metabolism of Olefins	126
IV. Metabolism of Acetylenes	131
V. Destruction of Cytochrome <i>P</i> -450 by Olefins and Acetylenes	135
VI. Mechanisms of π -Bond Oxidation and Cytochrome <i>P</i> -450 Destruction	140
VII. Olefin and Acetylene Toxicity	144
References	145

6. Benzene and Substituted Benzenes*Laurence S. Kaminsky*

I. Introduction	157
II. Chemical Properties	158
III. Reaction Mechanisms for Bioactivation	159
IV. Enzymology of Bioactivation	170
References	170

7. Polycyclic Aromatic Hydrocarbons: Metabolic Activation to Ultimate Carcinogens*Dhiren R. Thakker, Haruhiko Yagi, Wayne Levin, Alexander W. Wood, Allan H. Conney, and Donald M. Jerina*

I. Introduction	178
II. Metabolic Pathways of Polycyclic Aromatic Hydrocarbons	180
III. Metabolism of Benzo[a]pyrene	181
IV. Biological Activity of Benzo[a]pyrene Derivatives	195
V. The Bay Region Theory	203
VI. Comparative Metabolism of Polycyclic Aromatic Hydrocarbons	206
VII. Stereoselectivity in the Metabolism of the Polycyclic Aromatic Hydrocarbons	212
VIII. Stereoselectivity in the Biological Activity of Polycyclic Aromatic Hydrocarbon Derivatives	219
IX. Summary	221
References	222

8. Furans*Leo T. Burka and Michael R. Boyd*

I. Chemistry	243
II. Occurrence	245
III. Enzymology	246
IV. Reactive Intermediates	247
V. Fate of Reactive Intermediates	252
VI. Summary	253
References	254

9. Phenols, Catechols, and Quinones*Richard D. Irons and Tadashi Sawahata*

I. Introduction	259
II. Phenols	261
III. Catechols and Hydroquinones	266

IV. Quinones	269
References	277

10. Halogenated Alkanes

M. W. Anders and Lance R. Pohl

I. Chemistry of the Halogen–Carbon Bond	284
II. Oxidative Dehydrohalogenation Mechanism	285
III. Oxygenation of Halocarbon Radicals: Reductive-Oxygenation Pathway of Metabolism	290
IV. Cytochrome <i>P</i> -450–Dependent Reductive Reactions of Halogenated Hydrocarbons	296
V. Glutathione-Dependent Metabolism of Halogenated Hydrocarbons	302
References	306

11. Halogenated Alkenes and Alkynes

Dietrich Henschler

I. Chemical Reactivity as a Basis for Predicting Biotransformation Pathways and Rates	317
II. Halogenated Ethylenes	318
III. Halogenated Allyl Compounds	335
IV. Halogenated Alkynes	339
References	341

12. Arylamines and Arylamides: Oxidation Mechanisms

Sidney D. Nelson

I. Introduction	349
II. Chemical Properties of Arylamines and Arylamides	350
III. Reaction Mechanisms of N-Oxidation for Arylamines and Arylamides	352
IV. Fate of Arylamine and Arylamide Oxidation Products	363
V. Summary	365
References	365

13. Arylhydroxylamines and Arylhydroxamic Acids: Conjugation Reactions

Patrick E. Hanna and R. Bruce Banks

I. Introduction	376
II. Bioactivation of Arylhydroxylamines and Arylhydroxamic Acids by Conjugation Reactions	376

III. Fate of Reactive Intermediates Generated by Conjugation of Arylhydroxylamines and Arylhydroxamic Acids	392
References	395

14. Nitrosamines

Michael C. Archer and George E. Labuc

I. Introduction	403
II. Chemical Properties of Nitrosamines	404
III. Mechanisms in the Bioactivation of Nitrosamines	405
IV. Enzymology of the Bioactivation of Nitrosamines	417
V. Fate of Reactive Intermediates from Nitrosamines	419
References	420

15. Hydrazines

R. A. Prough and S. J. Moloney

I. Introduction	433
II. Chemical Properties of Hydrazines	434
III. Bioactivation of Hydrazines	436
IV. Fates of Reactive Intermediates of Hydrazines	441
V. Conclusion	445
References	446

16. Nitroimidazoles

P. David Josephy and Ronald P. Mason

I. Introduction	451
II. Preparation of Aminoimidazoles	454
III. Zinc Reduction of Nitroimidazoles	455
IV. Enzymatic Reduction of Nitroimidazoles: Diamagnetic Products	456
V. Free-Radical Intermediates in the Enzymatic Reduction of Nitro Compounds	458
VI. Catalytic, Radiolytic, and Electrochemical Reduction of Nitroimidazoles	461
VII. Coreduction of Nitroimidazoles with Macromolecules	462
VIII. Nonenzymatic Reactions of the Nitro Anion Free Radical	462
IX. Other Free-Radical Metabolites of Nitro Compounds	469
X. Bacterial Metabolism of Nitroimidazoles	472
XI. Metabolism of Misonidazole by Mammalian Cells <i>in Vitro</i>	473
XII. Summary	475
References	476

17. Nitriles*Ahmed E. Ahmed, Mohammed Y. H. Farooqui, and Norman M. Trieff*

I. Introduction	485
II. Inorganic Cyanides	486
III. Nitriles	490
IV. Saturated Aliphatic Nitriles	491
V. Unsaturated Aliphatic Nitriles	499
VI. Alkylaryl Nitriles	506
VII. Aryl Nitriles	508
VIII. Summary	509
References	510

18. Thiono-Sulfur Compounds*Robert A. Neal*

I. Introduction	519
II. Mechanism of Metabolism of Parathion, Carbon Disulfide, and Thioacetamide	523
III. Summary	537
References	538

Index	541
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Introduction

