AUTHOR INDEX

Α

- Ahmed, K., and Ishida, H. Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, 323
- Allan, P. W. See Hill, Straight, Allan, and Bennett, Jr., 375
- Alvares, A. See Levin, Kuntzman, Alvares, and Conney, 500
- Alvares, A. P. See Milani, Alvares, Sassa, and Kappas, 280
- Alvares, A. P. See Milani, Winchester, Alvares, Poland, and Kappes, 689
- Arqueros, L. See Viveros, Arqueros, and Kirshner, 434
- Arqueros, L. See Viveros, Arqueros, and Kirshner, 444

В

- Barlow, R. B., Lowe, B. M., Pearson, J. D. M., Rendall, H. M., and Thompson, G. M. Ion Size and Acitivity at Acetylcholine Receptors, 357
- Barrantes, F. J. See Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Becker, F. F. See Rossman, Becker, and Vilcek, 480 Bennett, L. L., Jr See Hill, Straight, Allan, and Bennett, Jr., 375
- Berry, M. N. See Dummel, Berry, and Kun, 367 Boquet, P. L. See Devynck, Boquet, Fromageot, and Simon, 605
- Borris, D. P. See Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Brent, T. P. See Momparler, Brent, Labitan, and Krygier, 413
- Bresnick, E. See Hey-Ferguson and Bresnick, 183
- Bresnick, E. See Yee and Bresnick, 191
- Bronaugh, R. L. See Erwin, Tabakoff, and Bronaugh, 169
- Brooker, G., and Thomas, L. J., Jr. Phosphatase and Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, 199
- Bruns, R. See Kessel, Bruns, and Hall, 117 Burghardt, C. R. See Sheppard and Burghardt, 1

C

Camerman, A. See Camerman and Camerman, 406 Camerman, N., and Camerman, A. The Stereochemical Basis of Anticonvulsant Drug Ac-

- tion III. The Structure of Procyclidine Hydrochloride, 406
- Carchman, R. A., Jaanus, S. D., and Rubin, R. P. The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, 491
- Chang, C.-K. See Horwitz, Chang, and Grollman, 632
- Changeux, J.-P. Meunier, J.-C., and Huchet, M. Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, 538
- Chignell, C. F., and Starkweather, D. K. Optical Studies of Drug-Protein Complexes V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicyclic Acid-Treated Human Serum Albumin, 229
- Cohen, A. M., and Ruddon, R. W. Stability of Polyribosomes Isolated from Rat Liver after Phenobarbital Administration, 484
- Conney, A. H. See Levin, Kuntzman, Alvares, and Conney, 500
- Coubeils, J. L. See Pullman, Courrière, and Coubeils, 397
- Courrière, Ph. See Pullman, Courrière, and Coubeils, 397
- Coyle, J. T. See Horn, Coyle, and Snyder, 66

D

- Daly, J. See Huang, Shimizu, and Daly, 155
- D'Angelo, G. L. See Musacchio, Wurzburger, and D'Angelo, 136
- Davidson, E. D. See Forman, Davidson, and Webster, Jr., 247
- Davidson, E. D. See Killenberg, Davidson, and Webster, Jr., 260
- Deitrich, R. A., and Erwin, V. G. Mechanism of the Inhibition of Aldehyde Dehydrogenase in Vivo by Disulfiram and Diethyldithiocarbamate, 301
- Deitrich, R. A. See Erwin and Deitrich, 219
- De Robertis, E., Lunt, G. S., and La Torre, J. L. Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, 97
- De Robertis, E. See Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530

- Devynck, M. A., Boquet, P. L., Fromageot, P., and Simon, E. J. On the Mode of Action of Levallorphan on *Escherichia coli*: Effects on Cellular Magnesium, 605
- Divekar, A. Y., and Hakala, M. T. Adenosine Kinase of Sarcoma-180 Cells N⁶-Substituted Adenosines as Substrates and Inhibitors, 663
- Dummel, R. J., Berry, M. N., and Kun, E. Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, 367
- Dworkind, J. See Trifaró and Dworkind, 52

F

- El Dareer, S. See Struck, Kirk, Mellett, El Dareer, and Hill, 519
- Eldefrawi, A. T. See Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Eldefrawi, A. T. See Eldefrawi, Eldefrawi and O'Brien, 104
- Eldefrawi, M. E., Eldefrawi, A. T., Gilmour, L. P., and O'Brien, R. D. Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of *Torpedo* Electroplax, 420
- Eldefrawi, M. E., Eldefrawi, A. T., and O'Brien, R. D. Binding of Five Cholinergic Ligands to Housefly Brain and *Torpedo* Electroplax. Relationship to Acetylcholine Receptors, 104
- Erwin, V. G., and Deitrich, R. A. The labeling in Vivo of Monoamine Oxidase by ¹⁴C-Pargyline: a Tool for Studying the Synthesis of the Enzyme, 219
- Erwin, V. G. See Deitrich and Erwin, 301
- Erwin, V. G., Tabakoff, B., and Bronaugh R. L. Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, 169
- Estabrook, R. W See Leibman and Estabrook, 26

F

- Fahien, L. A. See Shemisa and Fahien, 8
 Fain, J. N. Effects of Menadione and Vitamin
 K. on Glucose Metabolism, Respiration,
 Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells,
 465
- Fain, J. N., and Loken, S. C. Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, 455
- Ferris, R. M. See Slotkin, Ferris, and Kirshner,
- Forman, W. B., Davidson, E. D., and Webster,

- L. T. Jr. Enzymatic Conversion of Salicylate to Salicylurate, 247
- Freedman, M. L., and Rabinovitz, M. Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, 317
- Fromageot, P. See Devynck, Boquet, Fromageot, and Simon, 605

G

- George, J. M., Kier, L. B., and Hoyland, J. R. Theoretical Considerations of *Alpha* and *Beta* Adrenergic Activity, 328
- Gewirtz, G. P. Kvetňanský, R., Weise, V. K., and Kopin, I. J. Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, 163
- Gewirtz, G. P. See Kvetňanský, Gewirtz, Weise, and Kopin, 81
- Gillette, J. R. See Horak and Gillette, 429
- Gilmour, L. P. See Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Glave, W. R. See Hansch and Glave, 337
- Glazer, R. I., Schenkman, J. B., and Sartorelli, A. C. Immunochemical Studies on the Role of Reduced Nicotinamide Adenine Dinucleotide Phosphate-Cytochrome c (P-450) reductase in Drug Oxidation, 683
- Goldman, P. See Unkeless and Goldman, 293Grollman, A. P. See Horwitz, Chang, and Grollman, 632

Н

- Haidle, C. W. Fragmentation of Deoxyribonucleic Acid by Bleomycin, 645
- Hakala, M. T. See Divekar and Hakala, 663
- Hall, T. C. See Kessel, Bruns, and Hall, 117
- Hansch, C., and Glave, W. R. Structure-Activity Relationships in Membrane-Perturbing Agents. Hemolytic, Narcotic, and Antibacterial Compounds, 337
- Harris, J. E., and Roth, R. H. Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices. I. A Study on the Mechanism of Action, 593
- Heidelberger, C. See Oki and Heidelberger, 653
 Hey-Ferguson, A., and Bresnick, E. The Binding of 3-Methylcholanthrene to Macromolecular Components of Rat Liver Preparations, 183
- Hill, D. L., Straight, S., Allan, P. W., and Bennett, L. L., Jr. Inhibition of Guanine Metabolism of Mammalian Tumor Cells by the Carbocyclic Analogue of Adenosine, 375
- Hill, D. L. See Struck, Kirk, Mellett, El Dareer, and Hill, 519
- Horak, V., and Gillette, J. R. A Study of the

Oxidation-Reduction State of Synthetic 3,4-Dihydroxy-DL-phenylalanine Melanin, 429

Horn, A., Coyle, J. T., and Snyder, S. H. Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, 66

Horwitz, S. B., Chang, C.-K., and Grollman, A. P Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, 632

Hoyland, J. R. See George, Kier, and Hoyland, 328 Huang, M., Shimizu, H., and Daly, J. Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interactions among Norepinephrine, Histamine, and Serotonin, 155

Huchet, M. See Changeux, Meunier, and Huchet,

Imig, B. See Spector and Imig, 511

Ishida, H. See Ahmed and Ishida, 323

Iverson, F. The Influence of Tetraethylammonium Ion on the Reaction Between Acetylcholinesterase and Selected Inhibitors, 129

Jaanus, S. D. See Carchman, Jaanus, and Rubin,

K

Kappas, A. See Mitani, Alvares, Sassa, and Kappas, 280

Kappas, A. See Mitani, Winchester, Alvares, Poland, and Kappas, 689

Kappas, A. See Poland and Kappas, 697

Karler, R. See Williams and Karler, 269

Kato, G., and Yung, J. The Use of Nuclear Magnetic Resonance to Describe the Binding of Atropine Analogues to Acetylcholinesterase, 33

Keen, P. See White and Keen, 40

Kessel, D., Bruns, R., and Hall, T. C. Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, 117

Kier, L. B. See George, Kier, and Hoyland, 328 Killenberg, P. G., Davidson, E. D., and Webster, L. T., Jr. Evidence for a Medium-Chain Fatty acid: Coenzyme A Ligase (Adenosine Monophosphate) that Activates Salicylate, 260

Kirk, M. C. See Struck, Kirk, Mellett, El Dareer, and Hill, 519

Kirshner, N. See Patrick and Kirshner, 87

Kirshner, N. See Patrick and Kirshner, 389

Kirshner, N. See Slotkin, Ferris, and Kirshner,

Kirshner, N. See Slotkin and Kirshner, 581

Kirshner, N. See Viveros, Arqueros, and Kirshner, 434

Kirshner, N. See Viveros, Arqueros, and Kirshner, 444

Klimer, F See Zahavi, Tahori, and Klimer, 611 Kopin, I. J. See Gewirtz, Kvetňanský, Weise and Kopin, 163

Kopin, I. J. See Kvetňanský, Gewirtz, Weise, and Kopin, 81

Krygier, V. See Momparler, Brent, Labitan, and Krygier, 413

Kun, E. See Dummel, Berry, and Kun, 367

Kuntzman, R. See Levin, Kuntzman, Alvares, and Conney, 500

Kvetňanský, R., Gewirtz, G. P., Weise, V. K., and Kopin, I. J. Enhanced Synthesis of Adrenal Dopamine β-Hydroxylase Induced by Repeated Immobilization in Rats, 81

Kvetňanský, R. See Gewirtz, Kvetňanský, Weise, and Kopin, 163

Labitan, A. See Momparler, Brent, Labitan, and Krygier, 413

Lahiri, A. K., and Wilson, I. B. On the Inhibition of $(Na^+ + K^+)$ -Activated Adenosine Triphosphatase by Diisopropyl Fluorophosphate, 46

La Torre, J. L. See De Robertis, Lunt, and La Torre, 97

La Torre J. L. See Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530

Leibman, K. C., and Estabrook, R. W. Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, 26

Levin, W., Kuntzman, R., Alvares, A., and Conney, A. H. Chromatography of Radioactive Microsomal Hemoproteins on Diethylaminoethyl Cellulose, 500

Lietman, P. S. Mitochondrial Protein Synthesis: Inhibition by Emetine Hydrochloride, 122

Llorente de Carlin, M. C. See Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530

Lloyd, T., and Weiner, N. Isolation and Characterization of a Tyrosine Hydroxylase Cofactor from Bovine Adrenal Medulla, 569

Loken, S. C. See Fain and Loken, 455

Lotlikar, P. D., and Luha, L. Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, 381

Lowe, B. M. See Barlow, Lowe, Pearson, Rendall, and Thompson, 357

Luha, L. See Lotlikar and Luha, 381

Lunt, G. S. See De Robertis, Lunt, and La Torre,

M

- Mellett, L. B. See Struck, Kirk, Mellett, El Dareer, and Hill, 519
- Mitani, F., Alvares, A. P., Sassa, S., and Kappas, A. Preparation and Properties of a Solubilized Form of Cytochrome P-450 from Chick Embryo Liver Microsomes, 280
- Mitani, F., Winchester, R. J., Alvares, A. P., Poland, A. P., and Kappas, A. Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic Microsomes, 689
- Momparler, R. L., Brent, T. P., Labitan, A., and Krygier, V. Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells 413
- Muenier, J.-C. See Changeux, Meunier, and Huchet, 538
- Musacchio, J. M., Wurzburger, R. J., and D'Angelo, G. L. Different Molecular Forms of Bovine Adrenal Tyrosine Hydroxylase, 136

N

Ng, S. An Infrared Study of the Interaction of Caffeine and Theophylline with 9-Ethyladenine in Chloroform Solution, 177

C

- O'Brien, R. D. See Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- O'Brien, R. D. See Eldefrawi, Eldefrawi, and O'Brien, 104
- Oki, T., and Heidelberger, C. Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, 653
- O'Reilly, R. A. Interaction of Several Coumarin Compounds with Human and Canine Plasma Albumin, 209

P

- Patrick, R. L., and Kirshner, N. Effect of Stimulation on the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, 87
- Patrick, R. L., and Kirshner, N. Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, 389
- Pearson, J. D. M. See Barlow, Lowe Pearson, Rendall, and Thompson, 357
- Poland, A., and Kappas, A. The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, 697

- Poland, A. P. See Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Pullman, B., Courrière, Ph., and Coubeils, J. L. Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists, Muscarine and Nicotine, 397

R

- Rabinovitz, M. See Freedman and Rabinovitz, 317
 Rang, H. P., and Ritter, J. M. The Effect of
 Disulfide Bond Reduction on the Properties
 of Cholinergic Receptors in Chick Muscle, 620
- Rendall, H. M. See Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Ritter, J. M. See Rang and Ritter, 620
- Robinson, J. D. Effects of Oligomycin on the (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase, 238
- Rossman, T., Becker, F. F., and Vilcek, J. An Investigation into the Mechanism of Cytotoxicity of Levorphanol, 480
- Roth, R. H. See Harris and Roth, 593
- Rubin, R. P. See Carchman, Jaanus, and Rubin, 491
- Ruddon, R. W. See Cohen and Ruddon, 484

S

- Saner, A., and Thoenen, H. Model Experiments on the Molecular Mechanism of Action of 6-Hydroxydopamine, 147
- Sartorelli, A. C. See Glazer, Schenkman, and Sartorelli, 683
- Sassa, S. See Milani, Alvares, Sassa, and Kappas, 280
- Schenkman, J. B. See Glazer, Schenkman, and Sartorelli, 683
- Shemisa, O. A., and Fahien, L. A. Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, 8
- Sheppard H., and Burghardt, C. R. The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, 1
- Sheppard, H., and Wiggan, G. Analogues of 4 (3,4 Dimethoxybenzyl)-2-imidazolidinone as Potent Inhibitors of Rat Erythrocyte Adenosine Cyclic 3',5'-Phosphate Phosphodiesterase, 111
- Shimizu, H. See Huang, Shimizu, and Daly, 155Simon, E. J. See Devynck, Boquet, Fromageot, and Simon, 605
- Slotkin, T. A., Ferris, R. M., and Kirshner, N. Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, 308

Slotkin, T. A., and Kirshner, N. Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, 581

Snyder, S. H. See Horn, Coyle, and Snyder, 66
Spector, A. A., and Imig, B. Effect of Free Fatty Acid Concentration on the Transport and Utilization of Other Albumin-Bound Compounds: Hydroxyphenylazobenzoic Acid, 511

Starkweather, D. K. See Chignell and Starkweather, 229

Straight, S. See Hill, Straight, Allan, and Bennett, Jr., 375

Struck, R. F., Kirk, M. C., Mellett, L. B., El Dareer, S., and Hill, D. L. Urinary Metabolites of the Antitumor Agent Cyclophosphamide, 519

T

Tabakoff, B. See Erwin, Tabakoff, and Bronaugh, 169

Tahori, A. S. See Zahavi, Tahori, and Klimer, 611 Thoenen, H. See Saner and Thoenen, 147

Thomas, L. J., Jr. See Brooker and Thomas, Jr., 199

Thompson, G. M. See Barlow, Lowe, Pearson, Rendall, and Thompson, 357

Trifaró, J. M., and Dworkind, J. Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, 52

u

Unkeless, J. C., and Goldman, P. The Diastereomers of γ-Fluoroglutamate: Complementary Structural Analogues, 293

V

Vilcek, J. See Rossman Becker, and Vilcek, 480 Viveros, O. H., Arqueros, L., and Kirshner, N. Mechanism of Secretion from the Adrenal Medulla VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, 434

Viveros, O. H., Arqueros, L., and Kirshner, N. Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, 444

W

Weber, G., Borris, D. P., De Robertis, E., Barrantes, F. J., La Torre, J. L., and Llorente de Carlin, M. C. The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, 530

Webster, L. T., Jr. See Forman, Davidson, and Webster, Jr., 247

Webster, L.T., Jr. See Killenberg, Davidson, and Webster, Jr., 260

Weiner, N. See Lloyd and Weiner, 569

Weise, V. K. See Gewirtz, Kvetňanský, Weise, and Kopin, 163

Weise, V. K. See Kvetňanský, Gewirtz, Weise, and Kopin. 81

White, T. D. and Keen, P. Effects of Inhibitors of (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, 40

Wiggan, G. See Sheppard and Wiggan, 111

Williams, J. F., and Karler, R. Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, 269

Wilson, I. B. See Lahiri and Wilson, 46

Winchester, R. J. See Mitani, Winchester, Alvares, Poland, and Kappas, 689

Wolf, H. U. See Wombacher and Wolf, 554

Wombacher, H., and Wolf, H. U. Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, 554

Wurzburger, R. J. See Musacchio, Wurzburger, and D'Angelo, 136

Υ

Yee, M., and Bresnick, E. Effect of Administration of 3-Methylcholanthrene on the Salt-Extractable Chromatin Proteins of Rat Liver, 191

Yung, J. See Kato and Yung, 33

Z

Zahavi, M., Tahori, A. S., and Klimer, F. Insensitivity of Acetylcholinesterases to Organophosphorus Compounds as Related to Size of Esteratic Site, 611

Zilversmit, R. Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone, 674

SUBJECT INDEX

Α

- Acetylation: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 220
- Acetylation: Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha. 381
- Acetyl coenzyme A: Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha, 381
- Acetylcholine: Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, De Robertis, Lunt, and La Torre, 97
- Acetylcholine: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Acetylcholine: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Acetylcholine: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils. 397
- Acetylcholine: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic Receptors in Chick Muscle, Rang and Ritter, 620
- Acetylcholinesterase: The Use of Nuclear Magnetic Resonance to Describe the Binding of Atropine Analogues to Acetylcholinesterase, Kato and Yung, 33
- Acetylcholinesterase: The Influence of Tetraethylammonium Ion on the Reaction between Acetylcholinesterase and Selected Inhibitors, Iverson, 129
- Acetylcholinesterase: Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554
- Acetylcholinesterase: Insensitivity of Acetylcholinesterases to Organophosphorus Com-

- pounds as Related to Size of Esteratic Site, Zahavi, Tahori, and Klimer, 611
- Acetylsalicylic acid: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin. Chignell and Starkweather, 229
- Actinomycin D: Effect of Stimulation on the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Acyl-coenzyme A: glycine: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster, 247
- Acylthiocholines: Insensitivity of Acetylcholinesterases to Organophosphorus Compounds as Related to Size of Esteratic Site, Zahavi, Tahori, and Klimer, 611
- N-acyltransferase: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster, 247
- Adenosine: Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155
- Adenosine analogues: Inhibition of Guanine Metabolism of Mammalian Tumor Cells by the Carbocyclic Analogue of Adenosine, Hill, Straight, Allan, and Bennett, 375
- Adenosine kinase: Adenosine Kinase of Sarcoma-180 Cells. N⁶-Substituted Adenosines as Substrates and Inhibitors, *Divekar and Hakala*, 663
- Adenosine monophosphate: Evidence for a Medium-Chain Fatty Acid: Coenzyme A Ligase (Adenosine Monophosphate) That Activates Salicylate, Killenberg, Davidson, and Webster, 260
- Adenosine triphosphatase: Effects of Inhibitors of (Na+ + K+)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Adenosine triphosphatase: On the Inhibition of (Na⁺ + K⁺)-Activated Adenosine Triphosphatase by Diisopropyl Fluorophosphate, Lahiri and Wilson, 46
- Adenosine triphosphatase: Phosphatase and

- Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, Brooker and Thomas, 199
- Adenosine triphosphatase: Effects of Oligomycin on the (Na+ + K+)-Dependent Adenosine Triphosphatase, Robinson, 238
- Adenosine triphosphate: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, Trifaró and Dworkind, 52
- Adenosine triphosphate: Phosphatase and Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, Brooker and Thomas, 199
- Adenosine triphosphate: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- Adenosine triphosphate: Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, Ahmed and Ishida, 323
- Adenosine triphosphate: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Adenyl cyclase: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Adenyl cyclase: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Adenyl cyclase: Effects of Menadione and Vitamin K₅ on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465
- Adrenal gland: Effect of Stimulation on the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Adrenal gland: The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, Carchman, Jaanus, and Rubin, 491
- Adrenal medulla: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, Trifaró and Dworkind, 52
- Adrenal medulla: Enhanced Synthesis of Adrenal Dopamine β-Hydroxylase Induced

by Repeated Immobilization in Rats, Kvetňanský, Gewirtz, Weise, and Kopin, 81

- Adrenal medulla: Different Molecular Forms of Bovine Adrenal Tyrosine Hydroxylase, Musacchio, Wurzburger, and D'Angelo, 136
- Adrenal medulla: Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, Gewirtz, Kvetňanský, Weise, and Kopin, 163
- Adrenal medulla: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- Adrenal medulla: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Adrenal medulla: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Adrenal medulla: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Adrenal medulla: Isolation and Characterization of a Tyrosine Hydroxylase Cofactor from Bovine Adrenal Medulla, *Lloyd and Weiner*, 569
- Adrenal medulla: Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, Slotkin and Kirshner, 581
- Adrenal storage vesicles: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, Trifaró and Dworkind, 52
- Adrenal storage vesicles: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Adrenal storage vesicles: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Adrenal storage vesicles: Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, Slotkin and Kirshner, 581
- Alpha adrenergic agents: Theoretical Considerations of Alpha and Beta Adrenergic Activity, George, Kier, and Hoyland, 328
- Beta adrenergic agents: Theoretical Considera-

- tions of Alpha and Beta Adrenergic Activity, George, Kier, and Hoyland, 328
- Alpha adrenergic blocking agent: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxy-phenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Beta adrenergic blocking agent: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Adrenocorticotropin: Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, Gewirtz, Kvetňanský, Weise, and Kopin, 163
- Adrenocorticotropin: The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, Carchman, Jaanus, and Rubin, 491
- Affiinity: Ion Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Aldehyde dehydrogenase: Mechanism of the Inhibition of Aldehyde Dehydrogenase in Vivo by Disulfiram and Diethyldithiocarbamate, Deitrich and Erwin, 301
- Aldehyde reductase: Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, Erwin, Tabakoff, and Bronaugh, 169
- Allosteric effects: The Influence of Tetraethylammonium Ion on the Reaction between Acetylcholinesterase and Selected Inhibitors, *Iverson*, 129
- Allosteric effects: Effects of Oligomycin on the (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase, *Robinson*, 238
- Allosteric effects: Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554
- **δ-aminolevulinic acid:** Chromatography of Radioactive Microsomal Hemoproteins on Diethylaminoethyl Cellulose, *Levin*, *Kuntzman*, *Alvares*, and *Conney*, 500
- Aminopyrine metabolism: The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, *Poland and Kappas*, 697
- Analgesics: An Investigation into the Mechanism of Cytotoxicity of Levorphanol, Rossman, Becker, and Vilcek, 480
- Analgesics: On the Mode of Action of Leval-

- lorphan on Escherichia coli: Effects on Cellular Magnesium, Devynck, Boquet, Fromageot, and Simon. 605
- Antibiotics: Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, Williams and Karler, 269
- Antibiotics: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Antibiotics: Fragmentation of Deoxyribonucleic Acid by Bleomycin, *Haidle*, 645
- Antibodies: Immunochemical Studies on the Role of Reduced Nicotinamide Adenine Dinucleotide Phosphate-Cytochrome c (P-450) Reductase in Drug Oxidation, Glazer, Schenkman, and Sartorelli, 683
- Antibodies: Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic Microsomes, Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Anticoagulants: Interaction of Several Coumarin Compounds with Human and Canine Plasma Albumin, O'Reilly, 209
- Anticonvulsants: The Stereochemical Basis of Anticonvulsant Drug Action. III. The Structure of Procyclidine Hydrochloride, Camerman and Camerman, 406
- Antimetabolites: Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117
- Antimetabolites: The Diastereomers of γ-Fluoroglutamate: Complementary Structural Analogues, Unkeless and Goldman, 293
- Antimetabolites: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Antimetabolites: Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, Dummel, Berry and Kun, 367
- Antimetabolites: Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells, Momparler, Brent, Labilan, and Krygier, 413
- Antimetabolites: Inhibition of Guanine Metabolism of Mammalian Tumor Cells by the Carbocyclic Analogue of Adenosine, Hill, Straight, Allan, and Bennett, 375
- Antimetabolites: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Antitumor agents: Determinants of Respon-

siveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117

- Antitumor agents: Urinary Metabolites of the Antitumor Agent Cyclophosphamide, Struck, Kirk, Mellett, El Dareer, and Hill, 519
- Antitumor agents: Adenosine Kinase of Sarcoma-180 Cells. N⁶-Substituted Adenosines as Substrates and Inhibitors, Divekar and Hakala, 663
- Antiviral agents: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Atropine: The Use of Nuclear Magnetic Resonance to Describe the Binding of Atropine Analogues to Acetylcholinesterase, Kato and Yung, 33
- Atropine: Binding of Five Cholinergic Ligands to Housefly Brain and *Torpedo* Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104

R

- Barbiturates: Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, Erwin, Tabakoff, and Bronaugh, 169
- Biopterin: Isolation and Characterization of a Tyrosine Hydroxylase Cofactor from Bovine Adrenal Medulla, Lloyd and Weiner, 569
- **Bleomycin:** Fragmentation of Deoxyribonucleic Acid by Bleomycin, *Haidle*, 645
- Brain: Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, Erwin, Tabakoff, and Bronaugh, 169
- Brain slices: Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155
- Brain slices: Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices.
 I. A Study on the Mechanism of Action, Harris and Roth, 593
- α-bungarotoxin: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538

C

- Caffeine: An Infrared Study of the Interaction of Caffeine and Theophylline with 9-Ethyladenine in Chloroform Solution, Ng, 177
- Calcium: The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, Carchman, Jaanus, and Rubin, 491
- Camptothecin: Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, Horwitz, Chang, and Grollman, 632
- Carbachol: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Carbachol: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic Receptors in Chick Muscle, Rang and Ritter, 620
- Carbon monoxide: The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, *Poland and Kappas*, 697
- Carbon monoxide difference spectrum: Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic Microsomes, Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Carcinogenesis: The Binding of 3-Methylcholanthrene to Macromolecular Components of Rat Liver Preparations, Hey-Ferguson and Bresnick, 183
- Carcinogenesis: Effect of Administration of 3-Methylcholanthrene on the Salt-Extractable Chromatin Proteins of Rat Liver, Yee and Bresnick, 191
- Carcinogenesis: Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha, 381
- Carcinostatic agent: Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone, Zilversmit, 674
- Catecholamines: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Catecholamines: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, *Trifaró and* Dworkind, 52

- Catecholamines: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66
- Catecholamines: Effect of Stimulation of the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Catecholamines: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- Catecholamines: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Catecholamines: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Catecholamines: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Catecholamines: Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, Slotkin and Kirshner, 581
- Catecholamines, biosynthesis: Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices. I. A Study on the Mechanism of Action, Harris and Roth, 593
- Chick biventer muscle: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic Receptors in Chick Muscle, Rang and Ritter, 620
- Chlorpromazine: Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, Shemisa and Fahien, 8
- Chromatin: Effect of Administration of 3-Methylcholanthrene on the Salt-Extractable Chromatin Proteins of Rat Liver, Yee and Bresnick, 191
- Circular dichroism: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Coenzyme A: Enzymatic Conversion of Salicylate to Salicylarate, Forman, Davidson, and Webster. 247
- Coenzyme A: Acetylation of the Carcinogen

- N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha, 381
- Conformation: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397
- Conformation: The Stereochemical Basis of Anticonvulsant Drug Action. III. The Structure of Procyclidine Hydrochloride, Camerman and Camerman, 406
- Conformational changes: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chiquell and Starkweather, 229
- Corticosteroids: Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, Gewirtz, Kvetňanský, Weise, and Kopin, 163
- Corticosteroids: The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, Carchman, Jaanus, and Rubin, 491
- Cotton effect: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather,
- Coumarins: Interaction of Several Coumarin Compounds with Human and Canine Plasma Albumin, O'Reilly, 209
- Coumarins: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Cyclic 3',5'-adenosine monophosphate: Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155
- Cyclic 3',5'-adenosine monophosphate: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Cyclic 3',5'-adenosine monophosphate: Effects of Menadione and Vitamin K_s on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation,

- and Adenyl Cyclase in White Fat Cells, Fain, 465
- Cyclic 3',5'-adenosine monophosphate: The Role of Adrenocorticotropin and Calcium in Adenosine Cyclic 3',5'-Phosphate Production and Steroid Release from the Isolated, Perfused Cat Adrenal Gland, Carchman, Jaanus, and Rubin, 491
- Cyclic adenosine 3',5'-phosphate phosphodiesterase: Analogues of 4-(3,4-Dimethoxybenzyl)-2-imidazolidinone as Potent Inhibitors of Rat Erythrocyte Adenosine Cyclic 3',5'-Phosphate Phosphodiesterase, Sheppard and Wiggan, 111
- Cyclic 3',5'-adenylic acid: Effects of Menadione and Vitamin K₅ on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465
- Cycloheximide: The Labeling in Vivo of Monoamine Oxidase by ¹⁴C-Pargyline: a Tool for Studying the Synthesis of the Enzyme, Erwin and Deitrich, 219
- Cycloheximide: Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, Williams and Karler, 269
- Cyclophosphamide metabolism: Urinary Metabolites of the Antitumor Agent Cyclophosphamide, Struck, Kirk, Mellett, El Dareer, and Hill, 519
- Cytochrome c reductase: Preparation and Properties of a Solubilized Form of Cytochrome P-450 from Chick Embryo Liver Microsomes, Milani, Alvares, Sassa, and Kappas, 280
- Cytochrome c reductase: Immunochemical Studies on the Role of Reduced Nicotinamide Adenine Dinucleotide Phosphate-Cytochrome c (P-450) Reductase in Drug Oxidation, Glazer, Schenkman, and Sartorelli, 683
- Cytochrome P-450: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Estabrook, 26
- Cytochrome P-450: Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, Williams and Karler, 269
- Cytochrome P-450: Preparation and Properties of a Solubilized Form of Cytochrome P-450 from Chick Embryo Liver Microsomes, Mitani, Alvares, Sassa, and Kappas, 280
- Cytochrome P-450: Chromatography of Radioactive Microsomal Hemoproteins on Diethylaminoethyl Cellulose, Levin, Kuntzman, Alvares, and Conney, 500
- Cytochrome P-450: Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic

- Microsomes, Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Cytochrome P-450: The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, *Poland and Kappas*, 697
- Cytosine arabinoside: Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells, Momparler, Brent, Labitan, and Krygier, 413

D

- Decamethonium: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Decamethonium: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Decamethonium: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Decarboxylation: Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, Dummel, Berry, and Kun, 367
- Denervation: Enhanced Synthesis of Adrenal Dopamine β-Hydroxylase Induced by Repeated Immobilization in Rats, Kvetňanský, Gewirtz, Weise, and Kopin, 81
- Denervation: Effect of Stimulation on the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Denervation: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, *Patrick and Kirshner*, 389
- Density, buoyant: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Density, buoyant: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Density, pycnometric measurements: Ion

- Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Deoxyadenosine kinase: Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells, Momparler, Brent, Labitan, and Krygier, 413
- **Deoxycytidine kinase:** Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells, *Momparler*, *Brent*, *Labitan*, and *Krygier*, 413
- Deoxyribonucleic acid: Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone, Zilversmit, 674
- Deoxyribonucleic acid, fragmentation: Fragmentation of Deoxyribonucleic Acid by Bleomycin, *Haidle*, 645
- Deoxyribonucleic acid synthesis: Determinants of Responsiveness of 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117
- Deoxyribonucleic acid synthesis: Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, *Horwitz, Chang, and Groll*man, 632
- Diastereomeric isomers: The Diastereomers of γ-Fluoroglutamate: Complementary Structural Analogues, Unkeless and Goldman, 293
- Diethyldithiocarbamate: Mechanism of the Inhibition of Aldehyde Dehydrogenase in Vivo by Disulfiram and Diethyldithiocarbamate, Deitrich and Erwin, 301
- 3,4-dihydroxy-pL-phenylalanine melanin: A Study of the Oxidation-Reduction State of Synthetic 3,4-Dihydroxyl-pL-phenylalanine Melanin, Horak and Gillette, 429
- Diisopropyl fluorophosphate: On the Inhibition of (Na⁺ + K⁺)-Activated Adenosine Triphosphatase by Diisopropyl Fluorophosphate, Lahiri and Wilson, 46
- 4-(3,4-dimethoxybenzyl)-2-imidazolidinone:
 Analogues of 4-(3,4-Dimethoxybenzyl)-2-imidazolidinone as Potent Inhibitors of Rat
 Erythrocyte Adenosine Cyclic 3',5'-Phosphate Phosphodiesterase, Sheppard and Wigan. 111
- dimethylaminonaphthalene 5 sulfon amidoethyl-trimethylammonium: The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Diphosphopyridine nucleotide: Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, Shemisa and Fahien, 8
- Disulfide bonds: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic

- Receptors in Chick Muscle, Rang and Ritter, 620
- Disulfiram: Mechanism of the Inhibition of Aldehyde Dehydrogenase in Vivo by Disulfiram and Diethyldithiocarbamate, Deitrich and Erwin, 301
- Dopamine: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Dopamine: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66
- Dopamine β-hydroxylase: Enhanced Synthesis of Adrenal Dopamine β-Hydroxylase Induced by Repeated Immobilization in Rats, Kvetnanský, Gewirtz, Weise, and Kopin, 81
- Dopamine β-hydroxylase: Effect of Stimulation of the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Dopamine β-hydroxylase: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Dopamine β-hydroxylase: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Dopamine β-hydroxylase: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Dopamine β-hydroxylase, corticosteroid effects: Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, Gewirtz, Kvetňanský, Weise, and Kopin, 163
- Drug binding: The Use of Nuclear Magnetic Resonance to Describe the Binding of Atropine Analogues to Acetylcholinesterase, Kato and Yung, 33
- Drug binding: Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, De Robertis, Lunt, and La Torre, 97
- Drug binding: Binding of Five Cholinergic Ligands to Housefly Brain and *Torpedo* Electroplax. Relationship to Acetylcholine

- Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Drug binding: Model Experiments on the Molecular Mechanism of Action of 6-Hydroxydopamine, Saner and Thoenen, 147
- Drug binding: The Binding of 3-Methylcholanthrene to Macromolecular Components of Rat Liver Preparations, Hey-Ferguson and Bresnick, 183
- Drug binding: Effect of Administration of 3-Methylcholanthrene on the Salt-Extractable Chromatin Proteins of Rat Liver, Yee and Bresnick, 191
- Drug binding: Interaction of Several Coumarin Compounds with Human and Canine Plasma Albumin, O'Reilly, 209
- Drug binding: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Drug binding: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Drug binding: Effect of Free Fatty Acid Concentration on the Transport and Utilization of Other Albumin-Bound Compounds: Hydroxyphenylazobenzoic Acid, Spector and Imig, 511
- Drug binding: The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Drug binding: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Drug binding: Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, Slotkin and Kirshner, 581
- Drug metabolism: Urinary Metabolites of the Antitumor Agent Cyclophosphamide, Struck, Kirk, Mellett, El Dareer, and Hill, 519
- **Drug metabolism:** The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, *Poland and Kappas*, 697

E

- Efficacy: Ion Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Electroplax: Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, De Robertis, Lunt, and La Torre, 97

- Electroplax: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Electroplax: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Electroplax: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Emetine: Mitochondrial Protein Synthesis: Inhibition by Emetine Hydrochloride, *Lietman*
- Epinephrine: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- Epinephrine: Uptake, Storage, and Distribution of Amines in Bovine Adrenal Medullary Vesicles, Slotkin and Kirshner, 581
- Erythrocytes: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Erythrocytes: Analogues of 4-(3,4-Dimethoxybenzyl)-2-imidazolidinone as Potent Inhibitors of Rat Erythrocyte Adenosine Cyclic 3',5'-Phosphate Phosphodiesterase, Sheppard and Wiggan, 111
- Erythrocytes: Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554
- Escherichia coli: On the Mode of Action of Levallorphan on Escherichia coli: Effects on Cellular Magnesium, Devynck, Boquet, Fromageot, and Simon, 605
- 9-ethyladenine: An Infrared Study of the Interaction of Caffeine and Theophylline with 9-Ethyladenine in Chloroform Solution, Ng, 177

F

- Fat cells: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Fat cells: Effects of Menadione and Vitamin Ks on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465

- Fatty acid:coenzyme A ligase: Evidence for a Medium-Chain Fatty Acid:Coenzyme A Ligase (Adenosine Monophosphate) That Activates Salicylate, Killenberg, Davidson, and Webster, 260
- Fatty acids, free: Effect of Free Fatty Acid Concentration on the Transport and Utilization of Other Albumin-Bound Compounds: Hydroxyphenylazobenzoic Acid, Spector and Imig, 511
- Flufenamic acid: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Fluorescence methods: The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Fluoride: On the Inhibition of (Na⁺ + K⁺)Activated Adenosine Triphosphatase by
 Diisopropyl Fluorophosphate, *Lahiri* and
 Wilson, 46
- Fluorinated pyrimidines: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- γ-fluoroglutamate: The Diastereomers of γ-Fluoroglutamate: Complementary Structural Analogues, Unkeless and Goldman, 293
- Fluorooxalacetic acid: Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, Dummel, Berry, and Kun, 367
- Fluoropyruvate: Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, Dummel, Berry, and Kun, 367
- 5-fluorouridine: Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall,

G

- Gallamine: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Gallamine: Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554

- Globulin, anti-cytochrome P-450: Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic Microsomes, Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Globulin, antireductase: Immunochemical Studies on the Role of Reduced Nicotinamide Adenine Dinucleotide Phosphate-Cytochrome c (P-450) Reductase in Drug Oxidation, Glazer, Schenkman, and Sartorelli, 683
- Glucose metabolism: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Glucose metabolism: Effects of Menadione and Vitamin K₅ on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465
- Glutamate dehydrogenase: Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, Shemisa and Fahien, 8
- Guanine metabolism: Inhibition of Guanine Metabolism of Mammalian Tumor Cells by the Carbocyclic Analogue of Adenosine, Hill, Straight, Allan, and Bennett, 375
- Guanosine triphosphate: Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, Shemisa and Fahien, 8

Н

- Haloperidol: Modifications of Glutamate Dehydrogenase by Various Drugs Which Affect Behavior, Shemisa and Fahien, 8
- Heart, frog: Phosphatase and Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, Brooker and Thomas, 199
- HeLa cells: Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, Horwitz, Chang, and Grollman, 632
- HeLa cells: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Hepatic cell culture: The Metabolism of Aminopyrine in Chick Embryo Hepatic Cell Culture: Effects of Competitive Substrates and Carbon Monoxide, *Poland and Kappas*, 697
- Hexobarbital: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Estabrook, 26
- Histamine: Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155

- Hydroxamic acid: Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha, 381
- N-Hydroxy-2-acetylaminofluorene: Acetylation of the Carcinogen N-Hydroxy-2-acetylaminofluorene by Acetyl Coenzyme A to Form a Reactive Ester, Lotlikar and Luha, 381
- 6-hydroxydopamine: Model Experiments on the Molecular Mechanism of Action of 6-Hydroxydopamine, Saner and Thoenen, 147
- Hydroxyphenylazobenzoic acid: Effect of Free Fatty Acid Concentration on the Transport and Utilization of Other Albumin-Bound Compounds: Hydroxyphenylazobenzoic Acid, Spector and Imig, 511
- Hypophysectomy: Effect of Hypophysectomy on Adrenal Dopamine β-Hydroxylase Activity in the Rat, Gewirtz, Kvetňanský, Weise, and Kopin, 163

ı

- Infrared spectroscopy: An Infrared Study of the Interaction of Caffeine and Theophylline with 9-Ethyladenine in Chloroform Solution, Ng, 177
- Infrared spectroscopy: Thioxanthones. II Studies on the Hydrogen-Bonding Capacity of Lucanthone, Zilversmit, 674
- Insulin: Mechanism of Secretion from the Adrenal Medulla. VII. Effect of Insulin Administration on the Buoyant Density, Dopamine β-Hydroxylase, and Catecholamine Content of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 444
- Isoleucine-deficiency: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Isooctane: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Estabrook, 26

Κ

Kidney: On the Inhibition of (Na⁺ + K⁺)Activated Adenosine Triphosphatase by
Diisopropyl Fluorophosphate, Lahiri and
Wilson, 46

L

- Leukemia: Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117
- Levallorphan: On the Mode of Action of Levallorphan on Escherichia coli: Effects on Cellular

- Magnesium, Devynck, Boquet, Fromageot, and Simon, 605
- Levorphanol: An Investigation into the Mechanism of Cytotoxicity of Levorphanol, Rossman, Becker, and Vilcek, 480
- Lipolysis: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Lipolysis: Effects of Menadione and Vitamin K₅ on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465
- Lucanthone: Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone Zilversmit, 674

M

- Magnesium: On the Mode of Action of Levallorphan on Escherichia coli: Effects on Cellular Magnesium, Devynck, Boquet, Fromageot, and Simon, 605
- Malaoxon: Insensitivity of Acetylcholinesterases to Organophosphorus Compounds as Related to Size of Esteratic Site, Zahavi, Tahori, and Klimer, 611
- Melanin: A Study of the Oxidation-Reduction State of Synthetic 3,4-Dihydroxy-DL-phenylalanine Melanin, *Horak and Gillette*, 429
- Membranes: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, Trifaró and Dworkind, 52
- Membranes, perturbing agents: Structure-Activity Relationships in Membrane-Perturbing Agents. Hemolytic, Narcotic, and Antibacterial Compounds, Hansch and Glave, 337
- Menadione: Effects of Menadione and Vitamin K_δ on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465
- Metaraminol: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- 3-methylcholanthrene: The Binding of 3-Methylcholanthrene to Macromolecular Components of Rat Liver Preparations, Hey-Ferguson and Bresnick, 183
- 3-methylcholanthrene: Effect of Administration of 3-Methylcholanthrene on the Salt-Extractable Chromatin Proteins of Rat Liver, Yee and Bresnick, 191
- O-methylthreonine: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes

- Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Microsomes, liver: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Eslabrook, 26
- Microsomes, liver: The Binding of 3-Methylcholanthrene to Macromolecular Components of Rat Liver Preparations, Hey-Ferguson and Bresnick, 183
- Microsomes, liver: Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, Williams and Karler, 269
- Microsomes, liver: Preparation and Properties of a Solubilized Form of Cytochrome P-450 from Chick Embryo Liver Microsomes, Mitani, Alvares, Sassa, and Kappas, 280
- Microsomes, liver: Chromatography of Radioactive Microsomal Hemoproteins on Diethylaminoethyl Cellulose, Levin, Kuntzman, Alvares, and Conney, 500
- Microsomes, liver: Interaction of Cytochrome P-450 with Antibodies Raised against a Solubilized P-450 Preparation from Hepatic Microsomes, Mitani, Winchester, Alvares, Poland, and Kappas, 689
- Mites: Insensitivity of Acetylcholinesterases to Organophosphorus Compounds as Related to Size of Esteratic Site, Zahavi, Tahori, and Klimer, 611
- Mitochondria: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster. 247
- Mitochondria: Evidence for a Medium-Chain Fatty Acid: Coenzyme A Ligase (Adenosine Monophosphate) That Activates Salicylate, Killenberg, Davidson, and Webster, 260
- Mitochondria, protein synthesis: Mitochondrial Protein Synthesis: Inhibition by Emetine Hydrochloride, *Lietman*, 122
- Molal volumes: Ion Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Molecular orbital theory: Theoretical Considerations of Alpha and Beta Adrenergic Activity, George, Kier, and Hoyland, 328
- Molecular orbital theory: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397
- Monoamine oxidase: The Labeling in Vivo of Monoamine Oxidase by ¹⁴C-Pargyline: a Tool for Studying the Synthesis of the Enzyme, Erwin and Deitrich, 219
- Muscarine: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine

- and Nicotine, Pullman, Courrière, and Coubeils. 397
- Muscarone: Binding of Five Cholinergic Ligands to Housefly Brain and *Torpedo* Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Muscarone: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420

N

- Naja nigricollis α-toxin: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Nicotinamide adenine dinucleotide phosphate: Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, Erwin, Tabakoff, and Bronaugh, 169
- Nicotine: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Nicotine: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397
- Nicotine: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- p-nitrophenyl phosphatase: Phosphatase and Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, Brooker and Thomas, 199
- Norepinephrine: The Effect of Alpha, Beta, and Dopamine Receptor-Blocking Agents on the Stimulation of Rat Erythrocyte Adenyl Cyclase by Dihydroxyphenethylamines and Their β-Hydroxylated Derivatives, Sheppard and Burghardt, 1
- Norepinephrine: Effects of Inhibitors of (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Norepinephrine: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66 Norepinephrine: Regulation of Adenosine

- Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155
- Norepinephrine: Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices. I. A Study on the Mechanism of Action, *Harris and Roth*, 593
- Nuclear magnetic resonance: The Use of Nuclear Magnetic Resonance to Describe the Binding of Atropine Analogues to Acetylcholinesterase, Kato and Yung, 33

- Octopamine: Compartmental Analysis of Amine Storage in Bovine Adrenal Medullary Granules, Slotkin, Ferris, and Kirshner, 308
- Oligomycin: Effects of Inhibitors of (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Oligomycin: Effects of Oligomycin on the (Na++ K+)-Dependent Adenosine Triphosphatase Robinson, 238
- Organophosphorus compounds: Insensitivity of Acetylcholinesterases to Organophosphorus Compounds as Related to Size of Esteratic Site, Zahavi, Tahori, and Klimer, 611
- Ouabain: Effects of Inhibitors of (Na⁺ + K⁺)Dependent Adenosine Triphosphatase on
 the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Ouabain: Phosphatase and Ouabain-Sensitive Adenosine Triphosphatase Activities of the Perfused Frog Heart, Brooker and Thomas, 199
- Oxalacetic: Studies with Specific Enzyme Inhibitors. XIII. Kinetics of Nonenzymatic Decarboxylation of Fluorooxalacetic Acid, Dummel, Berry, and Kun, 367
- Oxidases, mixed function: Effect of Cycloheximide on the Mixed-Function Oxidase System of Rat Liver, Williams and Karler, 269

P

- Pargyline: The Labeling in Vivo of Monoamine Oxidase by ¹⁴C-Pargyline: a Tool for Studying the Synthesis of the Enzyme, Erwin and Deitrich. 219
- Phenobarbital: Stability of Polyribosomes Isolated from Rat Liver after Phenobarbital Administration, Cohen and Ruddon, 484
- Phenothiazines: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66

- Phenylbutazone: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Phospholipid: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Estabrook, 26
- Phosphorylation: Phosphorylation of Membrane Components of Adrenal Chromaffin Granules by Adenosine Triphosphate, Trifaró and Dworkind, 52
- Phosphorylation: Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, Ahmed and Ishida, 323
- Phosphorylation: Studies on the Phosphorylation of Cytosine Arabinoside in Mammalian Cells, Momparler, Brent, Labitan, and Krygier, 413
- Polarography: A Study of the Oxidation-Reduction State of Synthetic 3,4-Dihydroxy-DLphenylalanine Melanin, Horak and Gillette, 429
- Potassium: Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices.

 A Study on the Mechanism of Action, Harris and Roth, 593
- Procyclidine hydrochloride: The Stereochemical Basis of Anticonvulsant Drug Action. III.
 The Structure of Procyclidine Hydrochloride,
 Camerman and Camerman, 406
- Prostate gland: Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, Ahmed and Ishida, 323
- Protein phosphokinase: Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, Ahmed and Ishida, 323
- Protein synthesis: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Protein synthesis: Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, Horwitz, Chang, and Grollman, 632
- Protein synthesis, mitochondrial: Mitochondrial Protein Synthesis: Inhibition by Emetine Hydrochloride, *Lietman*, 122
- Proteolipid: Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, De Robertis, Lunt, and La Torre, 97
- Proteolipid: The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Pteridine: Isolation and Characterization of a

Tyrosine Hydroxylase Cofactor from Bovine Adrenal Medulla, Lloyd and Weiner, 569

Pyrazole: Inhibition of a Reduced Nicotinamide Adenine Dinucleotide Phosphate-Linked Aldehyde Reductase from Bovine Brain by Barbiturates, Erwin, Tabakoff, and Bronaugh, 169

a

- Quantum mechanics: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397
- Quaternary ammonium salts: Ion Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357

R

- Receptor protein: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Receptors: Theoretical Considerations of Alpha and Beta Adrenergic Activity, George, Kier, and Houland, 328
- Receptors, cholinergic: Multiple Binding Sites for Acetylcholine in a Proteolipid from Electric Tissue, De Robertis, Lunt, and La Torre, 97
- Receptors, cholinergic: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- Receptors, cholinergic: Ion Size and Activity at Acetylcholine Receptors, Barlow, Lowe, Pearson, Rendall, and Thompson, 357
- Receptors, cholinergic: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- Receptors, cholinergic: The Use of a Cholinergic Fluorescent Probe for the Study of the Receptor Proteolipid, Weber, Borris, De Robertis, Barrantes, La Torre, and Llorente de Carlin, 530
- Receptors, cholinergic: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- Receptors, cholinergic: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic Receptors in Chick Muscle, Rang and Ritter, 620
- Receptors, nicotinic and muscarinic: Quan-

- tum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397
- Reserpine: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Reserpine: Mechanism of Secretion from the Adrenal Medulla. VI. Effect of Reserpine on the Dopamine β-Hydroxylase and Catecholamine Content and on the Buoyant Density of Adrenal Storage Vesicles, Viveros, Arqueros, and Kirshner, 434
- Reticulocytes: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Ribonucleic acid, messenger: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Ribonucleic acid synthesis: An Investigation into the Mechanism of Cytotoxicity of Levorphanol, Rossman, Becker, and Vilcek, 480
- Ribonucleic acid synthesis: Studies on Camptothecin. I. Effects on Nucleic Acid and Protein Synthesis, Horwitz, Chang, and Grollman, 632
- Ribosomes: Structure of the Large β-Chain Polyribosome of Rabbit Reticulocytes Rendered Isoleucine-Deficient by O-Methylthreonine, Freedman and Rabinovitz, 317
- Ribosomes: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Ribosomes, disaggregation: Stability of Polyribosomes Isolated from Rat Liver after Phenobarbital Administration, Cohen and Ruddon, 484

S

- Salicylates: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster, 247
- Salicylates: Evidence for a Medium-Chain Fatty Acid: Coenzyme A Ligase (Adenosine Monophosphate) That Activates Salicylate, Killenberg, Davidson, and Webster, 260
- Salicyl-coenzyme A: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster, 247
- Salicylurate: Enzymatic Conversion of Salicylate to Salicylurate, Forman, Davidson, and Webster. 247

- Sarcoma cells: Adenosine Kinase of Sarcoma-180 Cells. No-Substituted Adenosines as Substrates and Inhibitors, Divekar and Hakala, 663
- Serotonin: Regulation of Adenosine Cyclic 3',5'-Phosphate Formation in Cerebral Cortical Slices. Interaction among Norepinephrine, Histamine, Serotonin, Huang, Shimizu, and Daly, 155
- Serum albumin: Model Experiments on the Molecular Mechanism of Action of 6-Hydroxydopamine, Saner and Thoenen, 147
- Serum albumin: Interaction of Several Coumarin Compounds with Human and Canine Plasma Albumin, O'Reilly, 209
- Serum albumin: Optical Studies of Drug-Protein Complexes. V. The Interaction of Phenylbutazone, Flufenamic Acid, and Dicoumarol with Acetylsalicylic Acid-Treated Human Serum Albumin, Chignell and Starkweather, 229
- Serum albumin: Effect of Free Fatty Acid Concentration on the Transport and Utilization of Other Albumin-Bound Compounds: Hydroxyphenylazobenzoic Acid, Spector and Imig, 511
- Spectral changes, types I and II: Effects of Extraction with Isooctane upon the Properties of Liver Microsomes, Leibman and Estabrook, 26
- Spectral changes, types I and II: Preparation and Properties of a Solubilized Form of Cytochrome P-450 from Chick Embryo Liver Microsomes, Mitani, Alvares, Sassa, and Kappas, 280
- Strophanthidin: Effects of Inhibitors of (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Structure-activity relationships: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66
- Structure-activity relationships: Theoretical Considerations of Alpha and Beta adrenergic Activity, George, Kier, and Hoyland, 328
- Structure-activity relationships: Structure-Activity Relationships in Membrane-Perturbing Agents. Hemolytic, Narcotic, and Antibacterial Compounds, Hansch and Glave, 337
- Structure-activity relationships: Quantum Mechanical Study of the Conformational and Electronic Properties of Acetylcholine and Its Agonists Muscarine and Nicotine, Pullman, Courrière, and Coubeils, 397

- Structure-activity relationships: The Stereochemical Basis of Anticonvulsant Drug Action.

 III. The Structure of Procyclidine Hydrochloride, Camerman and Camerman, 406
- Nº-substituted adenosines: Adenosine Kinase of Sarcoma-180 Cells. Nº-Substituted Adenosines as Substrates and Inhibitors, Divekar and Hakala, 663
- Succinylbischoline: Regulation of Membrane-Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554
- Synaptosomes: Effects of Inhibitors of (Na⁺ + K⁺)-Dependent Adenosine Triphosphatase on the Uptake of Norepinephrine by Synaptosomes, White and Keen, 40
- Synaptosomes: Catecholamine Uptake by Synaptosomes from Rat Brain. Structure-Activity Relationships of Drugs with Differential Effects on Dopamine and Norepinephrine Neurons, Horn, Coyle, and Snyder, 66

T

- Testosterone: Effect of Testosterone on Nuclear Phosphoproteins of Rat Ventral Prostate, Ahmed and Ishida, 323
- Tetraethylammonium: The Influence of Tetraethylammonium Ion on the Reaction between Acetylcholinesterase and Selected Inhibitors, *Iverson*, 129
- Theophylline: An Infrared Study of the Interaction of Caffeine and Theophylline with 9-Ethyladenine in Chloroform Solution, Ng, 177
- Thioxanthones: Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone, *Zilversmit*, 674
- 5-trifluoromethyl-2'-deoxyuridine: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- d-tubocurarine: Binding of Five Cholinergic Ligands to Housefly Brain and Torpedo Electroplax. Relationship to Acetylcholine Receptors, Eldefrawi, Eldefrawi, and O'Brien, 104
- d-tubocurarine: Multiple Affinities for Binding of Cholinergic Ligands to a Particulate Fraction of Torpedo Electroplax, Eldefrawi, Eldefrawi, Gilmour, and O'Brien, 420
- d-tubocurarine: Studies on the Cholinergic Receptor Protein of Electrophorus electricus. I. An Assay in Vitro for the Cholinergic Receptor Site and Solubilization of the Receptor Protein from Electric Tissue, Changeux, Meunier, and Huchet, 538
- d-tubocurarine: Regulation of Membrane-

- Bound Acetylcholinesterase Activity by Bis-Quaternary Nitrogen Compounds, Wombacher and Wolf, 554
- d-tubocurarine: The Effect of Disulfide Bond Reduction on the Properties of Cholinergic Receptors in Chick Muscle, Rang and Ritter, 620
- Tumor cells: Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117
- Tumor cells: Inhibition of Guanine Metabolism of Mammalian Tumor Cells by the Carbocyclic Analogue of Adenosine, Hill, Straight, Allan, and Bennett, 375
- Tumor cells: Adenosine Kinase of Sarcoma-180 Cells. N⁶-Substituted Adenosines as Substrates and Inhibitors, *Divekar and Hakala*, 663
- Turnover rates, enzyme: The Labeling in Vivo of Monoamine Oxidase by ¹⁴C-Pargyline: a Tool for Studying the Synthesis of the Enzyme, Erwin and Deitrich, 219
- Tyrosine hydroxylase: Effect of Stimulation on the Levels of Tyrosine Hydroxylase, Dopamine β-Hydroxylase, and Catecholamines in Intact and Denervated Rat Adrenal Glands, Patrick and Kirshner, 87
- Tyrosine hydroxylase: Different Molecular Forms of Bovine Adrenal Tyrosine Hydroxylase, Musacchio, Wurzburger, and D'Angelo, 136
- Tyrosine hydroxylase: Acetylcholine-Induced Stimulation of Catecholamine Recovery in Denervated Rat Adrenals after Reserpine-Induced Depletion, Patrick and Kirshner, 389
- Tyrosine hydroxylase: Isolation and Characterization of a Tyrosine Hydroxylase Cofactor from Bovine Adrenal Medulla, *Lloyd and Weiner*, 569

Tyrosine hydroxylase: Potassium-Induced Acceleration of Catecholamine Biosynthesis in Brain Slices. I. A Study on the Mechanism of Action, *Harris and Roth*, 593

u

- Ultraviolet spectroscopy: Thioxanthones. II. Studies on the Hydrogen-Bonding Capacity of Lucanthone, Zilversmit, 674
- Uridine kinase: Determinants of Responsiveness to 5-Fluorouridine in Transplantable Murine Leukemias, Kessel, Bruns, and Hall, 117

ν

- Vaccinia virus: Fluorinated Pyrimidines. XXXIX. Effects of 5-Trifluoromethyl-2'-deoxyuridine on the Replication of Vaccinia Viral Messenger Ribonucleic Acid and Proteins, Oki and Heidelberger, 653
- Valinomycin: Valinomycin as an Antilipolytic Agent. Effects on Cyclic 3',5'-Adenylic Acid, Adenyl Cyclase, Respiration, and Glucose Metabolism in Brown and White Fat Cells, Fain and Loken, 455
- Vitamin K: Effects of Menadione and Vitamin Ks on Glucose Metabolism, Respiration, Lipolysis, Cyclic 3',5'-Adenylic Acid Accumulation, and Adenyl Cyclase in White Fat Cells, Fain, 465

X

X-ray crystallography: The Stereochemical Basis of Anticonvulsant Drug Action. III. The Structure of Procyclidine Hydrochloride, Camerman and Camerman, 406