

SUBJECT INDEX

- Adenosine diphosphate–adenosine triphosphate exchange
Effects of cations on the — reaction catalyzed by rat brain microsomes (Wildes et al.) (307) 162
- Albumins
Effect of bovine and human serum — on the mechanical properties of human erythrocyte membranes (Williams) (307) 58
- Amino acid
Exchange transport and — charge as the basis for Na^+ -independent lysine uptake by isolated intestinal epithelial cells (Reiser, Christiansen) (307) 223
- Amino acid transport
Cortisol-induced inhibition of — in thymic lymphocytes: Kinetic parameters; relation to ATP levels and protein synthesis; and specificity (Baran et al.) (307) 627
- 3',5'-AMP
Effects of glucagon, — and 3',5'-GMP on ion fluxes and transmembrane potential in perfused livers of normal and adrenalectomized rats (Friedmann, Dambach) (307) 399
- Anaesthetics
Opposing effects of pressure and general — on the cation permeability of liposomes of varying lipid composition (Johnson et al.) (307) 42
- Asparagine transport
— in *Lactobacillus plantarum* and *Streptococcus faecalis* (Holden, Bunch) (307) 640
- ATP
Cortisol-induced inhibition of amino acid transport in thymic lymphocytes: Kinetic parameters; relation to — levels and protein synthesis; and specificity (Baran et al.) (307) 627
- ATP
Fluid transport, — level and ATPase activities in isolated rabbit corneal endothelium (Anderson et al.) (307) 557
- ATPase
Fluid transport, ATP level and — activities in isolated rabbit corneal endothelium (Anderson et al.) (307) 557
- ATPase
Membrane — of *Escherichia coli* K 12. Selective solubilization of the enzyme and its stimulation by trypsin in the soluble and membrane-bound states (Carreira et al.) (307) 541
- ATPase
Membrane reconstitution in chl-r mutants of *Escherichia coli* K 12. V. — incorporation in particles formed by complementation (Giordano et al.) (307) 513
- ATPase
Ouabain–receptor interactions in $(\text{Na}^+ + \text{K}^+)$ - — preparations from different tissues and species. Determination of kinetic constants and dissociation constants (Erdmann, Schoner) (307) 386
- ATPase
Potassium-stimulated — in purified microsomes of bullfrog oxyntic cells (Ganser, Forte) (307) 169
- Axon membrane
Excitability, instability and phase transitions in squid — under internal perfusion with dilute salt solutions (Inoue et al.) (307) 471
- Black lipid membranes
Effect of stirring on the flux of carriers into — (Hladky) (307) 261
- Calcium
Effect of — on temperature-induced phase changes in liquid-crystalline cardiolipin structure (Hegner et al.) (307) 452
- Calcium binding
Study of weak-affinity — to the inner and outer mitochondrial membrane and smooth and rough endoplasmic reticulum of rat liver (Tourey) (307) 607
- Calcium transport
Effect of phosphoenolpyruvate on — by mitochondria (Chudapongse, Haugaard) (307) 599
- Calcium uptake
— in chromaffin granules of bovine adrenal medulla stimulated in vitro (Serck-Hanssen, Christiansen) (307) 404
- C₄-carboxylic acid transport
— in *Neurospora crassa* (Wolfenbarger, Jr, Kay) (307) 243
- Cardiolipin
Effect of calcium on temperature-induced phase changes in liquid-crystalline — structure (Hegner et al.) (307) 452
- Carrier flux
Effect of stirring on the — into black lipid

- membranes (Hladky) (307) 261
- Cation permeability
 - Opposing effects of pressure and general anaesthetics on the — of liposomes of varying lipid composition (Johnson et al.) (307) 42
- Cations
 - Effects of — on the adenosine diphosphate-adenosine triphosphate exchange reaction catalyzed by rat brain microsomes (Wildes et al.) (307) 162
- Cells
 - Potassium-stimulated ATPase in purified microsomes of bullfrog oxyntic — (Ganser, Forte) (307) 169
- Cells
 - SH-groups on the surface of pancreas — involved in secretin stimulation and glucose-mediated secretion (Wizemann et al.) (307) 366
- Cell envelope proteins
 - Membrane proteins of *Rhodopseudomonas spheroides*. III. Isolation, purification and characterization of — (Huang, Kaplan) (307) 301
- Cell walls
 - Chemical and ultrastructural studies of isolated — of *Epidermophyton floccosum*. Presence of chitin inferred from X-ray diffraction analysis and electron microscopy (Nozawa et al.) (307) 92
- Chitin
 - Chemical and ultrastructural studies of isolated cell walls of *Epidermophyton floccosum*. Presence of — inferred from X-ray diffraction analysis and electron microscopy (Nozawa et al.) (307) 92
- Cholesterol
 - Effect of charge and — on the size and thickness of sonicated phospholipid vesicles (Johnson) (307) 27
- Cholesterol
 - Effect of the polar headgroup on the lipid- — interaction. A monolayer and differential scanning calorimetry study (de Kruyff et al.) (307) 1
- Cholesterol
 - Osmotic insensitivity of sonicated liposomes and the density of lipid- — mixtures (Johnson, Buttress) (307) 20
- Cholesterol-tetrodotoxin interactions
 - at the air-water interface (Gacesa et al.) (307) 467
- Choline absorption
 - Intestinal — in the chick (Herzberg, Lerner) (307) 234
- Chromaffin granules
 - Uptake of in calcium — of bovine adrenal medulla stimulated in vitro (Serck-Hanssen, Christiansen)
- Chromatophores
 - Membrane proteins of *Rhodopseudomonas spheroides* V. Additional chemical characterization of a pigment-lipid-associated protein isolated from — (Huang, Kaplan) (307) 332
- Chromatophore proteins
 - Membrane proteins of *Rhodopseudomonas spheroides*. IV. Characterization of chromatophore proteins (Huang, Kaplan) (307) 317
- Copper uptake
 - Studies on the radioactive — by sheep erythrocytes in vitro (Smith, Wright) (307) 590
- Cortisol
 - -induced inhibition of amino acid transport in thymic lymphocytes: Kinetic parameters; relation to ATP levels and protein synthesis; and specificity (Baran et al.) (307) 627
- Disaccharides
 - Studies on the transport of glucose from — by hamster small intestine in vitro. I. Evidence for a disaccharidase-related transport system (Malathi et al.) (307) 613
- Endoplasmic reticulum
 - Study of weak-affinity calcium binding to the inner and outer mitochondrial membrane and smooth and rough — of rat liver (Tourey) (307) 607
- Enzymes
 - Action of chaotropic agents on drug metabolizing — in hepatic microsomes (Vainio) (307) 152
- Epithelial cells
 - Exchange transport and amino acid charge as the basis for Na^+ -independent lysine uptake by isolated intestinal — (Reiser, Christiansen) (307) 223
- Epithelial cells
 - Properties of Na^+ -dependent and Na^+ -independent lysine uptake by isolated intestinal — (Reiser, Christiansen) (307) 212
- Epithelial cell membrane
 - Protein components of two different regions of an intestinal —: Regional singularities (Fujita et al.) (307) 141
- Erythrocytes
 - Effect of anoxia on sugar transport in avian — (Whitfield, Morgan) (307) 181
- Erythrocytes
 - Lytic and non-lytic degradation of phospholipids in mammalian — by pure phospholipases (Colley et al.) (307) 74

Erythrocytes

Studies on the uptake of radioactive copper by sheep — in vitro (Smith, Wright) (307) 590

Erythrocyte membranes

Effect of bovine and human serum albumins on the mechanical properties of human — (Williams) (307) 58

Erythrocyte membrane

Inactivation by fluorodinitrobenzene of glucose transport across the human —. The effect of glucose inside or outside the cell (Edwards) (307) 415

Erythrocyte membrane

Interaction of alfalfa saponins with components of the — in hemolysis (Assa et al.) (307) 83

Erythrocyte membranes

Investigation of HCl-extraction of human — (Schiechl) (307) 65

Erythrocyte membranes

Reaction of 1-dimethylaminonaphthalene-5-sulfonyl chloride (DANSCI) with —. A new look at "vectorial" membrane probes (Schmidt-Ullrich et al.) (307) 353

Glucagon

Effects of — 3',5'-AMP and 3',5'-GMP on ion fluxes and transmembrane potential in perfused livers of normal and adrenalectomized rats (Friedmann, Dambach) (307) 399

Glucose

SH-groups on the surface of pancreas cells involved in secretin stimulation and — -mediated secretion (Wizemann et al.) (307) 366

Glucose transport

Inactivation by fluorodinitrobenzene of — across the human erythrocyte membrane. The effect of glucose inside or outside the cell (Edwards) (307) 415

Glucose transport

Studies on the — from disaccharides by hamster small intestine in vitro. I. Evidence for a disaccharidase-related transport system (Malathi et al.) (307) 613

Glycoproteins

— of oxynitic cell microsomes. I Carbohydrate composition, analytical and preparative fractionation (Beesley, Forte) (307) 372

3',5'-GMP

Effects of glucagon, 3',5'-AMP and — on ion fluxes and transmembrane potential in perfused livers of normal and adrenalectomized rats (Friedmann, Dambach) (307) 399

Haemolysis

Interaction of alfalfa saponins with components of the erythrocyte membrane in — (Assa et al.) (307) 83

D- β -Hydroxybutyrate dehydrogenase

Interaction of — with lecithin vesicles (Hexter, Goldman) (307) 421

Ion fluxes

Effects of glucagon 3',5'-AMP and 3',5'-GMP on — and transmembrane potential in perfused livers of normal and adrenalectomized rats (Friedmann, Dambach) (307) 399

Lactose permease

Energy-dependent masking of substrate binding sites of the — of *Escherichia coli* (Benard-Bentaboulet, Kepes) (307) 197

Lecithin

Interaction of D- β -hydroxybutyrate dehydrogenase with vesicles (Hexter, Goldman) (307) 421

Lecithin-water binding

— in lecithin-water lamellar phases at 20° C (Gottlieb et al.) (307) 444

Lipid

Effect of the polar headgroup on the — -cholesterol interaction. A monolayer and differential scanning calorimetry study (de Kruffy et al.) (307) 1

Lipid

Membrane proteins of *Rhodopseudomonas spheroides* V. Additional chemical characterization of a pigment- — -associated protein isolated from chromatophores (Huang, Kaplan) (307) 332

Lipid

Opposing effects of pressure and general anaesthetics on the cation permeability of liposomes of varying — composition (Johnson et al.) (307) 42

Lipids

Specific interaction of central nervous system myelin basic protein with —. Specific regions of the protein sequence protected from the proteolytic action of trypsin (London, Vossenberg) (307) 478

Lipid

Structure of *Escherichia coli* membranes studied by fluorescence measurements of — phase transitions (Träuble, Overath) (307) 491

Lipid films

Rheologic hysteresis curve shape specificity of mixed — (Lusted) (307) 270

Lipid membranes

The effect of stirring on the flux of carriers into black — (Hladky) (307) 261

Lipoprotein

- from the membranes of *Streptococcus pyogenes* and its stabilized L-form (Lacave, Panos) (307) 118
- Liposomes**
 - Opposing effects of pressure and general anaesthetics on the cation permeability of — of varying lipid composition (Johnson et al.) (307) 42
- Liposomes**
 - Osmotic insensitivity of sonicated — and the density of phospholipid-cholesterol mixtures (Johnson, Buttress) (307) 20
- Lithium transport**
 - and rectification by frog skin (Candia, Chiarandini) (307) 578
- Lymphocytes**
 - Cortisol-induced inhibition of amino acid transport in thymic —: Kinetic parameters; relation to ATP levels and protein synthesis; and specificity (Baran et al.) (307) 627
- Lysine uptake**
 - Exchange transport and amino acid charge as the basis for Na^+ -independent — by isolated intestinal epithelial cells (Reiser, Christiansen) (307) 223
- Lysine uptake**
 - Properties of Na^+ -dependent and Na^+ -independent — by isolated intestinal epithelial cells (Reiser, Christiansen) (307) 212
- Membrane**
 - Isolation, solubilization and reaggregation of outer — of *Escherichia coli* (Sekizawa, Fukui) (307) 104
- Membranes**
 - Lipoprotein from the — of *Streptococcus pyogenes* and its stabilized L-form (Lacave, Panos) (307) 118
- Membranes**
 - Structure of *Escherichia coli* — studied by fluorescence measurements of lipid phase transitions (Träuble, Overath) (307) 491
- Membrane conductance**
 - Surface charge, surface dipoles and — (Haydon, Myers) (307) 429
- Membrane proteins**
 - of *Rhodopseudomonas spheroides*. III. Isolation, purification, and characterization of cell envelope proteins (Huang, Kaplan) (307) 301
- Membrane proteins**
 - of *Rhodopseudomonas spheroides*. IV. Characterization of chromatophore proteins (Huang, Kaplan) (307) 317
- Membrane proteins**
 - of *Rhodopseudomonas spheroides*. V. Additional chemical characterization of a pigment-lipid-associated protein isolated from chromatophores (Huang, Kaplan) (307) 332
- Membrane proteins**
 - Plasma membranes of bovine taste papillae. Polyacrylamide gel electrophoresis of circumvallate — (Lo, Ma) (307) 343
- Membrane reconstitution**
 - in chl-r mutants of *Escherichia coli* K 12. V. ATPase incorporation in particles formed by complementation (Giordano et al.) (307) 513
- Membrane reconstruction**
 - in chl-r mutants of *Escherichia coli* K 12. VI. Morphological study of membrane assembly during complementation between extracts of chl-r mutants (Mutaftschiev, Azoulay) (307) 525
- Microsomes**
 - Action of chaotropic agents on drug metabolizing enzymes in hepatic — (Vainio) (307) 152
- Microsomes**
 - Effects of cations on the adenosine diphosphate-adenosine triphosphate exchange reaction catalyzed by rat brain microsomes (Wildes et al.) (307) 162
- Microsomes**
 - Glycoproteins of oxymyot cell — I. Carbohydrate composition, analytical and preparative fractionation (Beesley, Forte) (307) 372
- Microsomes**
 - Potassium-stimulated ATPase in purified — of bullfrog oxymyot cells (Ganser, Forte) (307) 169
- Milk fat globule membrane**
 - Proteolytic digestion of proteins of the — (Kobylka, Carraway) (307) 133
- Mitochondrial membrane**
 - Study of weak-affinity calcium binding to the inner and outer — and smooth and rough endoplasmic reticulum of rat liver (Toury) (307) 607
- Monolayer**
 - Effect of the polar headgroup on the lipid-cholesterol interaction. A — and differential scanning calorimetry study (de Kruyff et al.) (307) 1
- Myelin basic protein**
 - Specific interaction of central nervous system — with lipids. Specific regions of the protein sequence protected from the proteolytic action of trypsin (London, Vossen-berg) (307) 478
- 12-Nitrode stearate films**
 - Pure and mixed monomolecular — (Ca-

- denhead, Müller-Landau) (307) 279
- Ouabain binding**
— to the sodium pump in plasma membranes isolated from ox brain (Whittam, Chipperfield) (307) 563
- Ouabain-receptor interactions**
— in $(\text{Na}^+ + \text{K}^+)\text{-ATPase}$ preparations from different tissues and species. Determination of kinetic constants and dissociation constants (Erdmann, Schoner) (307) 386
- Phosphoenolpyruvate**
Effect of — on calcium transport by mitochondria (Chudapongse, Haugaard) (307) 599
- Phospholipases**
Lytic and non-lytic degradation of phospholipids in mammalian erythrocytes by pure — (Colley et al.) (307) 74
- Phospholipids**
Lytic and non-lytic degradation of — in mammalian erythrocytes by pure phospholipases (Colley et al.) (307) 74
- Phospholipid**
Osmotic insensitivity of sonicated liposomes and the density of — -cholesterol mixtures (Johnson, Buttress) (307) 20
- Phospholipid vesicles**
Aliphatic chain transitions of — and phospholipid dispersions determined by polarization of fluorescence (Faucon, Lusan) (307) 459
- Phospholipid vesicles**
Effect of charge and cholesterol on the size and thickness of sonicated — (Johnson) (307) 27
- Pigment**
Membrane proteins of *Rhodopseudomonas spheroides* V. Additional chemical characterization of a — -lipid-associated protein isolated from chromatophores (Huang, Kaplan) (307) 332
- Plasma membranes**
Ouabain binding to the sodium pump in — isolated from ox brain (Whittam, Chipperfield) (307) 563
- Plasma membranes**
— of bovine taste papillae. Polyacrylamide gel electrophoresis of circumvallate membrane proteins (Lo, Ma) (307) 343
- Potassium-stimulated ATPase**
— in purified microsomes of bullfrog oxyntic cells (Ganser, Forte) (307) 169
- Proteins**
Membrane — of *Rhodopseudomonas spheroides*. III. Isolation, purification, and characterization of cell envelope proteins (Huang, Kaplan) (307) 301
- Proteins**
Membrane — of *Rhodopseudomonas spheroides*. IV. Characterization of chromatophore proteins (Huang, Kaplan) (307) 317
- Proteins**
Membrane — of *Rhodopseudomonas spheroides* V. Additional chemical characterization of a pigment-lipid-associated protein isolated from chromatophores (Huang, Kaplan) (307) 332
- Proteins**
Plasma membranes of bovine taste papillae. Polyacrylamide gel electrophoresis of circumvallate membrane — (Lo, Ma) (307) 343
- Protein**
— components of two different regions of an intestinal epithelial cell membrane: Regional singularities (Fujita et al.) (307) 141
- Proteins**
Proteolytic digestion of — of the milk fat globule membrane (Kobylka, Carraway) (307) 133
- Protein**
Specific interaction of central nervous system myelin basic — with lipids. Specific regions of the protein sequence protected from the proteolytic action of trypsin (London, Vossenberg) (307) 478
- Protein synthesis**
Cortisol-induced inhibition of amino acid transport in thymic lymphocytes: Kinetic parameters; relation to ATP levels and —; and specificity (Baran et al.) (307) 627
- Receptor-ouabain interactions**
— in $(\text{Na}^+ + \text{K}^+)\text{-ATPase}$ preparations from different tissues and species. Determination of kinetic constants and dissociation constants (Erdmann, Schoner) (307) 386
- Salt**
Excitability, instability and phase transitions in squid axon membrane under internal perfusion with dilute — solutions (Inoue et al.) (307) 471
- Saponins**
Interaction of alfalfa — with components of the erythrocyte membrane in hemolysis (Assa et al.) (307) 83
- Secretin**
SH-groups on the surface of pancreas cells involved in — stimulation and glucose-mediated secretion (Wizemann et al.) (307) 366
- (Sodium and potassium)-ATPase**
Ouabain-receptor interactions in — pre-

- parations from different tissues and species.
Determination of kinetic constants and dissociation constants (Erdmann, Schoner) (307) 386
- Sodium pump
Ouabain binding to the — in plasma membranes isolated from ox brain (Whitlam, Chipperfield) (307) 563
- Sugar transport
Effect of anoxia on — in avian erythrocytes (Whitfield, Morgan) (307) 181
- Tetrodotoxin-cholesterol interactions
— at the air-water interface (Gacesa et al.) (307) 467
- Trypsin
Membrane ATPase of *Escherichia coli* K 12. Selective solubilization of the enzyme and its stimulation by — in the soluble and membrane-bound states (Carreira et al.) (307) 541
- Trypsin
Specific interaction of central nervous system myelin basic protein with lipids. Specific regions of the protein sequence protected from the proteolytic action of — (London Vossenberg) (307) 478
- Virus membrane
Stepwise dissociation of the Semliki Forest — with Triton X-100 (Helenius, Söderlund) (307) 287
- Water-lecithin binding
— in lecithin-water lamellar phases at 20° (Gottlieb et al.) (307) 444