SUBJECT INDEX TO VOLUME 10

Each page number refers to the first page of a given reference

 α -chymotrypsin, refolding transition in chemically modified, 105

Acetylcholinesterase, inhibition by detergent, 147 Alcohol dehydrogenase, self-association of, 217

Allosteric phenomena, applied to thermal transitions in proteins and nucleic acids, 363

Aspartate transcarbamylase, binding enthalpy of Nphosphoracatyl-L-aspartate to, 47

Association, of oxyhemoglobin, 17

Association, self-association of alcohol dehydrogenase, 217

Association, self-association of proteins, 129

Association theory for cross-linking involving macromolecular heterogeneous, 379

Binding, large ligands to linear biopolymers cooperative, 173

Binding, of Ca²⁺ to negatively charged lipid membranes, 335

Binding, of detergent micelles to acetylcholinesterase, 147

Binding, of Mg²⁺ and Ca²⁺ to tetracyclines, 319 Binding, study by isoelectric focusing, 211 Brownian motion, of helical flagella, 81

Chromatin, electric birefringence, 27

Conformational transition, in p-guanidinobenzoate trypsinogen induced by dipeptide, 253

Conformational transition, refolding of chemically modified α -chymotrypsin, 105

Conformation, effect of oligopeptides binding to polynucleotides, 1

Cooperative effects, in binding of large ligands to linear polymers, 173

Decay, analysis of fluorescence anisotropy, 91
Denaturation, kinetics of aplysia myoglobin, 119
Denaturation, theoretical treatment of, 363
Detergent micelles, inhibition of acetylcholinesterase by, 147

Dielectric dispersion, of low-molecular weight DNA, 67

Dielectric relaxation, of phosphatidyl choline analogues, 351

Diffusion constant, of proteins by fluorescence photobleaching recovery, 211

Diffusion controlled mean reaction time, systems with elliptical symmetry, 245

Diffusion controlled reaction rates, influence of dimensionality, 239

DNA, dielectric properties of, 67

DNA, electric birefringence of, 27

DNA, electro-optical effects for sonicated, 161

DNA, radial migration separation of very large, 327 Dynamics, of self-reproducing macromolecules, 153

Electric birefringence, of DNA and chromatin, 27 Electric field, orientation function of rodlike particles in, 41

Electric permittivity, of low-molecular weight DNA, 67

Electro-optical effects, comparison for sonicated DNA, 161

Electrostatic interactions, in Ca²⁺ binding to negatively charged membranes, 335

Flagella, Brownian motion of helical, 81
Fluorescence anisotropy, analysis of decay of, 91
Fluorescence photobleaching recovery, determination of diffusion constants of proteins by, 211
Fluorescence, polarization in an electric field, 161

Gel matrices, comparison of different gels used in scanning gel chromatography, 55

Hydrogen-bond interactions, ir. lipid membranes surfaces, 261

Hydrophobic interactions, in aqueous solutions of nucleic acid bases, 409, 415

428 Subject index

Infrared spectra, of poly (A, G) poly U double helix, 231

Interactions, in macromolecular systems studied by isoelectric focusing, 203

Isoelectric focusing, determination of ligand binding constants by, 211

Isoelectric focusing, for interacting systems, 203

Kinetics, influence of dimensionality on diffusion controlled reaction rates, 239

Kinetics, mean reaction time in diffusion controlled dynamics and with elliptical symmetry, 245

Kinetics, of binding of N-phenyl naphthylamine to membranes, 305

Kinetics, of Mg²⁺ and Ca²⁺ binding to tetracyclines, 319

Lamm equation, approximate solution of, 187 Lysozyme, complexes with ovalbumin, 379

Magnetic susceptibility, of oxyhemoglobin, 113

Mean reaction time, in diffusion controlled dynamics
and systems with elliptical symmetry, 245

Membranes, binding of Ca²⁺ to negatively charged lipid. 335

Membranes, hydrogen-bonded structures in surface of lipid, 261

Membranes, influence of dioxan on phase transition of phospholipids bilayer, 371

Membranes, kinetics of binding of N-phenyl naphthylamine to negatively charged lipid, 305

Membranes, kinetics of transport of hydrophobic ions through, 273

Membranes, theory of passive transport through semipermeable, 191

Membranes, thermodynamics of binding of N-phenyl naphthylamine to negatively charged lipid, 289

Molecular weight determination, by approach-to-sedimentation equilibrium, 183

Mössbauer quadrupole splitting, for oxyhemoglobin, 113

Multiple binding, theory for equilibrium of, 397 Myoglobin (aplysia), kinetics of reversible denaturation, 119

NMR, of water in virus-infected cells, 143 N-phenyl naphthylamine, thermodynamics of binding to negatively charged lipid membranes, 289 N-phenyl naphthylamine, kinetics of binding to negatively charged membrane, 305

N-phosphoracetyl-L-aspartate, binding enthalpy to aspartate transcarbamylase, 47

Nucleic acid bases, apparent molar enthalpies of dilution of, 415

Nucleic acid bases, apparent molar heat capacities of, 409

Orientation function, of rodlike particles in an electric field, 41

Osmotic flow, theory for semipermeable membranes, 191

Ovalbumin, complexes with lysozyme, 379 Oxyhemoglobin, electronic states of, 113 Oxyhemoglobin, self-association, 17

Peptides, binding to polynucleotides, 1 p-Guanidinobenzoate trypsinogen, conformational transition induced by dipeptide, 253

Phase transition, of phospholipid bilayer and monolayer, 371

Phospholipids, influence of dioxan on phase transitions of, 371

Phosphatidyl choline analogues, dielectric studies of, 351

Poly (A,G) poly U double helix, Raman and IR spectra, 231

Polynucleotides, binding of oligopeptides to, 1 Proteins, determination of diffusion constants by fluorescence photobleaching recovery, 211 Proteins, thermodynamics of self-association, 129

Quasi-elastic light scattering, self-association of alcohol dehydrogenase studied by, 217

Radial migration, theory for separation of very large DNA by, 327

Raman spectra, of poly (A,G)-poly U double helix, 231

Reaction rates, influence of dimensionality on diffusion controlled, 239

Scanning gel chromatography, comparison of gel matrices used in, 55

Sedimentation, analysis of data during approach-to equilibrium, 183

Sedimentation velocity, approximate solution of Lamm equation for, 187

Subject index 429

- Self reproducing macromolecules, selection and selforganization of, 153
- Serum albumin, thermodynamic data for binding of fluorescein and phenylbutazone to, 397
- Serum albumin, thermodynamic data of binding of organic ligands to, 389
- Temperature jump relaxation, kinetics of aplysia myoglobin denaturation, 119
- Temperature jump relaxation, kinetics of binding of fluorescence indicator to membrane, 305
- Temperature jump relaxation, kinetics of Mg²⁺ and Ca²⁺ binding to tetracyclines, 319
- Temperature-jump relaxation, study of interaction between p-guanidinobenzoate trypsinogen and dipeptide, 253
- Tetracyclines, thermodynamics and kinetics of Mg²⁺ and Ca²⁺ binding to, 319
- Thermal transitions, in proteins and nucleic acids, 363
- Thermodynamics, binding enthalpy of N-phosphoracetyl-L-aspartate to aspartate transcarbamylase, 47
- Thermodynamics, enthalpies of dilution of nucleic acid bases, 415

- Thermodynamics, heat capacities of nucleic acid bases, 409
- Thermodynamics, ligand binding constants by isoelectric focusing, 211
- Thermodynamics, of binding of fluorescein and phenylbutazone to serum albumin, 397
- Thermodynamics, of binding of large ligands to linear biopolymers, 173
- Thermodynamics, of binding of N-phenyl naphthylamine to negatively charged lipid membranes, 289
- Thermodynamics, of binding of organic ligands to serum albumin, 389
- Thermodynamics, of Mg²⁺ and Ca²⁺ binding to tetracyclines, 319
- Thermodynamics, of multiple binding and cross-linking in ovalbumin—lysozyme system, 379
- Thermodynamics, of self-association of proteins, 129
- Transport equations, theory for passive transport through semipermeable membranes, 191
- Transport, of hydrophobic ions through lipid membranes, 273
- Virus infected cells, NMR studies of water in, 143
- Water, NMR studies in virus-infected cells, 143