

CONTENTS

NO. 1 FEBRUARY 1993

- E. BAMBERG, H.-J. BUTT, A. EISENRAUCH AND K. FENDLER. Charge transport of ion pumps on lipid bilayer membranes 1
- E. S. KEMPNER. Damage to proteins due to the direct action of ionizing radiation 27
- A. T. BRÜNGER AND M. NILGES. Computational challenges for macromolecular structure determination by X-ray crystallography and solution NMR-spectroscopy 49

NO. 2 MAY 1993

- NEWS FROM THE INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS 127
- D. M. J. LILLEY AND R. M. CLEGG. The structure of branched DNA species 131
- V. P. SKULACHEV. Interrelations of bioenergetic and sensory functions of the retinal proteins 177
- L. V. YAKUSHEVICH. Nonlinear dynamics of biopolymers: theoretical models, experimental data 201

NO. 3 AUGUST 1993

- R. A. BECKMAN AND L. A. LOEB. Multi-stage proofreading in DNA replication 225
- M. J. J. M. ZVELEBIL AND J. M. THORNTON. Peptide-protein interactions: an overview 333

NO. 4 NOVEMBER 1993

- M. S. P. SANMOM. Structure and function of channel-forming peptaibols 365
- F. M. RICHARDS AND W. A. LIM. An analysis of packing in the protein folding problem 423