

QUARTERLY REVIEWS OF BIOPHYSICS

CONTENTS

L. A. BLUMENFELD

- The physical aspects of energy transduction in biological systems 251

P. R. CAREY

- Resonance Raman spectroscopy in biochemistry and biology 309

PETER LAGGNER and KARL W. MÜLLER

- The structure of serum lipoproteins as analysed by X-ray small angle scattering 371

News from IUPAB

427



CAMBRIDGE UNIVERSITY PRESS
Published for the International Union for
Pure and Applied Biophysics

COUNCIL OF IUPAB

- B. Chance (U.S.A.) *President*
S. Ebashi (Japan) *Vice-President*
P. G. Kostyuk (U.S.S.R.) *Vice-President*
F. Lynen (Fed. Rep. Germany) *Hon. Vice-President*
R. D. Keynes (United Kingdom) *Secretary-General*
- | | |
|-----------------------------|---------------------------------|
| J. Coursaget (France) | D. C. Phillips (United Kingdom) |
| M. Errera (Belgium) | F. M. Richards (U.S.A.) |
| A. R. Gopal-Ayengar (India) | M. Sela (Israel) |
| V. S. Gurfinkel (U.S.S.R.) | J. Tigyí (Hungary) |
| O. Maaløe (Denmark) | H. T. Witt (Fed. Rep. Germany) |
| M. Montal (Mexico) | K. Wuthrich (Switzerland) |

Quarterly Reviews of Biophysics is the official organ of the International Union for Pure and Applied Biophysics (IUPAB). It is edited for the Council by: Professor Arne Engström, National Food Administration, Box 622, S-751 26 Uppsala, Sweden; Professor A. Ehrenberg, Department of Biophysics, Arrhenius Laboratory, Stockholm University, Fack S-104 05 Stockholm, Sweden; Professor R. D. Keynes, Physiological Laboratory, Cambridge CB2 3EG, England; Dr G. Felsenfeld, NIAMD Building 2, Room 301, National Institutes of Health, Bethesda, Maryland 20014, U.S.A.

© Cambridge University Press 1978

Permissions. For permission to reproduce material from *Quarterly Reviews of Biophysics*, please apply to the Cambridge or New York office of Cambridge University Press.

ISI Tear Service, 325 Chestnut Street, Philadelphia, Pennsylvania 19106, U.S.A. is authorized to supply single copies of separate articles for private use only.

Subscriptions. *Quarterly Reviews of Biophysics* is published quarterly. A complete volume may be purchased at the subscription price (which includes postage) if payment is made before publication of the volume is complete. The subscription price of Volume 11, 1978 is £30.00 net (US \$66.50 in U.S.A. and Canada). Single parts cost £9.00 net (US \$20.00 in U.S.A. and Canada) plus postage. Members of bodies affiliated to the IUPAB and individuals who certify that the journal is for their own personal use and order direct from the Press may subscribe at the reduced rate of £16.00 (US \$42.00 in U.S.A. and Canada). Orders should be sent to a bookseller or to Cambridge University Press, P.O. Box 110, Cambridge CB2 3RL or, in the U.S.A. and Canada, to Cambridge University Press, 32 East 57th Street, New York, N.Y. 10022.

Second class postage paid at New York, N.Y.