## QUARTERLY REVIEWS OF BIOPHYSICS

## CONTENTS

FELIX FRIEDBERG  Effects of metal binding on protein structure	1
R. FRANS HEYN, ARTHUR RÖRSCH and ROBBERT  A. SCHILPEROORT  Prospects in genetic engineering of plants	35
IAN BREMNER  Heavy metal toxicities	75
News from IUPAB	128



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

## COUNCIL OF IUPAB

F. Lynen (Fed. Rep. Germany), President

B. Chance (U.S.A), Vice-President

J. C. Kendrew (United Kingdom), Hon. Vice-President

R. D. Keynes (United Kingdom), Secretary-General

A. Ehrenberg (Sweden)

A. R. Gopal-Ayengar (India)

F. Oosawa (Japan)

B. Pullman (France)

F. Hutchinson (U.S.A.) W. Reichardt (Fed. Rep. Germany)

L. Kayushin (U.S.S.R.)

E. Kellenberger (Switzerland)

O. Maaløe (Denmark)

M. Sela (Israel)

J. Tigyi (Hungary)

C. A. Tobias (U.S.A.)

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, Department of Medical Biophysics, Karolinska Institutet, S 104-01, Stockholm 60, 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, 1974

Permissions. For permission to reproduce material from Quarterly Reviews of Biophysics, please apply to the London 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 1974 subscription price is £14.00 net (US \$42.50 in U.S.A. and Canada). Single parts cost £4.00 net (US \$12.50 in U.S.A. and Canada) plus postage. Orders should be sent to a bookseller or to Cambridge University Press, Bentley House, 200 Euston Road, London NWI 2DB or, in the U.S.A. and Canada, to Cambridge University Press American Branch, 32 East 57th Street, New York, N.Y. 10022.

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