OFFICERS AND COMMITTEE, 1973–74

Chairman of the Committee
T. W. Goodwin, F.R.S.

Treasurer
D. F. Elliott

General Secretary
A. P. Mathias

Publications Secretary
R. M. C. Dawson

Meetings Secretary
H. M. Keir

Assistant Meetings Secretary
J. B. Lloyd

Committee
B. A. Askonas, F.R.S.
E. A. Dawes
C. A. Fawson
K. Griffiths
M. G. Harrington
C. H. S. Hitchcock
G. D. Hunter
V. H. T. James
C. F. Mills
T. A. Scott
T. F. Slater

Ruth E. van Heyningen
D. G. Walker*†
A. M. White
T. S. Work

*Ex officio Member of Committee.
†Representative of Editorial Board of the Biochemical Journal.

Executive Secretary
A. I. P. Henton (7 Warwick Court, London WC1R 5DP)

The Biochemical Society exists to advance the science of biochemistry through meetings and publications. Eleven meetings a year are held, each at a different place; original papers are presented and special topics are discussed at symposia and colloquia.

Persons interested in biochemistry are eligible for election as Members. Details of further facilities accorded to Members, and forms of application for membership, are available from the Executive Secretary, The Biochemical Society, 7 Warwick Court, London WC1R 5DP [01-242 1076 (4 lines)].
The Biochemical Journal is published and distributed by the Biochemical Society. It is published twice monthly, alternate issues being devoted to Molecular Aspects and to Cellular Aspects of biochemistry. It is planned that in 1973 six volumes, each volume being made up of four issues, will be published according to the following schedule:

<table>
<thead>
<tr>
<th>Molecular Aspects</th>
<th>Cellular Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>1973</td>
</tr>
<tr>
<td>1 Jan.</td>
<td>1 Jan.</td>
</tr>
<tr>
<td>1 Feb.</td>
<td>15 Jan.</td>
</tr>
<tr>
<td>1 Mar.</td>
<td>15 Feb.</td>
</tr>
<tr>
<td>1 Apr.</td>
<td>15 Mar.</td>
</tr>
<tr>
<td>1 May</td>
<td>15 Apr.</td>
</tr>
<tr>
<td>1 June</td>
<td>15 May</td>
</tr>
<tr>
<td>1 July</td>
<td>15 June</td>
</tr>
<tr>
<td>1 Aug.</td>
<td>15 July</td>
</tr>
<tr>
<td>1 Sept.</td>
<td>15 Aug.</td>
</tr>
<tr>
<td>1 Oct.</td>
<td>15 Sept.</td>
</tr>
<tr>
<td>1 Nov.</td>
<td>15 Oct.</td>
</tr>
<tr>
<td>1 Dec.</td>
<td>15 Nov.</td>
</tr>
<tr>
<td></td>
<td>15 Dec.</td>
</tr>
</tbody>
</table>

Biochemical Society Transactions is a new publication commencing January 1973. It includes extended abstracts of communications (including reports on colloquia and the text of Special Lectures) presented at meetings of the Biochemical Society, book reviews etc. (Note: the Proceedings of the Biochemical Society ceased publication in the Biochemical Journal at the end of 1972.) In 1973 it is planned that one volume, composed of six issues, will be published.

Biochemical Society Transactions is issued free to all subscribers of the Biochemical Journal only: it is not available on a separate subscription.

Subscriptions to the Biochemical Journal and Biochemical Society Transactions. For non-members of the Biochemical Society the subscription in 1973 for the Journal (plus Transactions) is £70 per year. For non-members in the U.S.A. the subscription is $180 per year (subject to exchange variation). Terms are cash with order or against proforma invoice. Orders and subscriptions should be sent to the Biochemical Society (Publications), P.O. Box 32, Commerce Way, Whitehall Road Industrial Estate, Colchester CO2 8HP, Essex, or through your normal agent.

Claims regarding issues lost or damaged in transit should be addressed to the Biochemical Society at the address given in the preceding paragraph. Claims cannot be entertained if they are received later than three months after the date of posting.

Back Numbers. Enquiries for volumes 1–19 of the Journal should be addressed to William Dawson & Sons Ltd., Back Issues Department, Cannon House, Park Farm Road, Folkestone, Kent. Quotations for available issues of subsequent volumes and parts of the Journal, and also of Transactions, may be obtained on application to The Biochemical Society (Publications), P.O. Box 32, Commerce Way, Whitehall Road Industrial Estate, Colchester CO2 8HP, Essex.

Advertisements. Applications for advertising space should be sent to the Advertising Department, The Biochemical Society, 7 Warwick Court, London WC1R 5DP [01-242 1076 (4 lines)]. Copy is required eight weeks before publication date. Rate cards are available on request.

Microfilms. Volumes 1–89 (1906–1963) of the Journal have been recorded on microfilm by the EP Group, Microfilm Division, Bradford Road, East Ardsley, Wakefield, Yorks. Details are available from them or the Biochemical Society.
The effects of environmental temperature on the properties of myofibrillar adenosine triphosphatase from various species of fish.
   By I. A. Johnston, N. Frearson & G. Goldspink

Effects of protein-modifying reagents on an isoenzyme of potato apyrase.
   By M. A. Valenzuela, G. del Campo, E. Marín & A. Traverso-Cori

Purification and properties of arginase of rat kidney.
   By G. A. Kaysen & H. J. Strecker

The kinetics of hydrolysis of synthetic glucuronic esters and glucuronic ethers by bovine liver and Escherichia coli β-glucuronidase.
   By J. Tomašić & D. Keglević

Deoxyribonucleic acid-dependent ribonucleic acid polymerases from murine spleen cells. Increased amounts of the nucleolar species in leukaemic tissue.
   By D. F. Babcock & M. A. Rich

Negatively co-operative ligand binding.
   By H. B. F. Dixon & K. F. Tipton

Direct measurement of proton binding to the active ternary complex of pig heart lactate dehydrogenase (Short Communication).
   By J. J. Holbrook

Index
Enzyme forms produced from aspartate transcarbamoylase by digestion with trypsin.
   By E. Heyde, A. Nagabhushanam & S. Venkataraman

Transport of methionine and proline by rat liver slices and the effect of certain hormones.
   By J. C. Crawhall & P. Purkiss

Biosynthetic pathway of desmosines in elastin.
   By G. Francis, R. John & J. Thomas

The kinetics of the interconversion of intermediates of the reaction of pig muscle lactate dehydrogenase with oxidized nicotinamide-adenine dinucleotide and lactate.
   By N. G. Bennett & H. Gutfreund

Effect of high- and low-protein diets on the regulation of rat liver tyrosine aminotransferase and of tryptophan oxygenase activities by L-tyrosine and L-tryptophan.
   By H. Mukhtar, M. K. Sahib & C. R. Krishna Murti

Nuclear binding of oestradiol-17β and induction of protein synthesis in the rat uterus during postnatal development.
   By D. Sömjen, G. Sömjen, R. J. B. King, A. M. Kaye & H. R. Linder

Mechanism and stereochemistry of the 5-amino-levulinate synthetase reaction.
   By Z. Zaman, P. M. Jordan & M. Akhtar

The metabolism of amino acids in the bovine lens. Their oxidation as a source of energy.
   By P. Trayhurn & R. van Heyningen

Purification of 14C-labelled deoxyribonuclease II from HeLa S3 lysosomes and its use as a marker for the study of nuclear deoxyribonuclease II.
   By H. Slor

Reduction of α-oxocarboxylic acids by pigeon liver 'malic' enzyme.
   By C. L. Tang & R. Y. Hsu

Heparan sulphate sulphotransferase. Properties of an enzyme from ox lung.
   By T. Foley & J. R. Baker

Glycolytic isoenzymes and glycogen metabolism in regenerating liver from rats on controlled feeding schedules.
   By R. J. Bonney, H. A. Hopkins, P. R. Walker & V. R. Potter

O-Methyl sugars in lipopolysaccharides of Rhodospirillaeae. Identification of 3-O-methyl-D-mannose in Rhodopseudomonas viridis and of 4-O-methyl-D-xylose and 3-O-methyl-6-deoxy-D-talose in Rhodopseudomonas palustris.
   By J. Weckesser, H. Mayer & I. Fromme

Refolding of triose phosphate isomerase.
   By S. G. Waley

The fusion of erythrocytes by fatty acids, esters, retinol and α-tocopherol.
   By Q. F. Ahkong, D. Fisher, W. Tampion & J. A. Lucy

The contractile and regulatory proteins of insect flight muscle.
   By B. Bullard, R. Dabrowska & L. B. Winkelman

Properties and mechanism of action of creatine kinase from ox smooth muscle. Anion effects compared with pyruvate kinase.
   By B. Focant & D. C. Watts

Steroid-binding properties and stabilization of cytoplasmic glucocorticoid receptors from rat thymus cells.
   By P. A. Bell & A. Munck

Identification and measurement of the folates in sheep liver.
   By W. S. Osborne-White & R. M. Smith

Folic acid metabolism in vitamin B12-deficient sheep. Depletion of liver folates.
   By R. M. Smith & W. S. Osborne-White

The synthesis of pteroyl-polyglutamates by sheep liver enzymes in vitro.
   By J. M. Gawthorne & R. M. Smith
NOTES FOR CONTRIBUTORS

It is the policy of the *Biochemical Journal* to publish papers in English in all fields of biochemistry, provided that they make a sufficient contribution to biochemical knowledge. Papers may include new results obtained experimentally, descriptions of new experimental methods of biochemical importance, or new interpretations of existing results. Theoretical contributions will be considered equally with papers dealing with experimental work. All work presented should have as its aim the development of biochemical concepts rather than the mere recording of facts. Preliminary or inconclusive experiments should not generally be described.


Two types of paper are accepted by the editors: Full-length papers. Papers submitted for publication should be sent together with an extra copy of the synopsis (see below) to the Editorial Secretary, The Biochemical Journal, 7 Warwick Court, London WC1R 5DP. Typescripts should bear the name and address of the person to whom the proof of the paper is to be sent.

Papers submitted should be written concisely. Special attention is directed to the sections below concerning the preparation of the typescript. Typescripts that are not concise or do not conform to the conventions of the *Biochemical Journal* will be returned to the authors for revision. If a paper that has been returned to an author for revision is not resubmitted within one month, it will, on resubmission, be deemed to be a new paper and the date of receipt altered accordingly. A revised paper containing a significant amount of new material will also be redated.

Submission of a paper to the Editorial Board implies that it reports unpublished work, that it is not under consideration for publication elsewhere, and that if accepted for the *Biochemical Journal* it will not be published elsewhere in the same form, either in English or in any other language, without the consent of the Editorial Board.

Papers should be headed by a concise but informative full title, by the names of the authors (preferably with one forename in full for each author) and by the name and address of the establishment where the work was performed. Details of financial support appear in the acknowledgements at the end of the paper.

Before preparing papers authors should consult a current issue of the Journal to make themselves familiar with the general format, such as the use of cross-headings, lay-out of tables and citation of references. Papers should be in double-spaced typing throughout (including the references and legends of tables and figures) on sheets of uniform size and wide margins. The top copy should be submitted. It cannot be overemphasized that the need for revision of badly prepared typescripts inevitably leads to delays in publication.

Papers on specialized subjects should be presented so that they are intelligible to the ordinary reader of the Journal. Sufficient information must be included to permit repetition of the experimental work.

**Short Communications.** Typescripts should be submitted in duplicate, written in English, and conform strictly to the form of the Journal as far as spelling and abbreviations are concerned. Each Short Communication should be provided with a short synopsis (normally not exceeding 50 words). Such communications should not exceed 2400 words in length inclusive of the title, references etc. Authors may include up to two insertions such as tables, figures or schemes; in these cases authors must assess what proportion of a page these insertions will occupy and reduce the number of text words accordingly at the rate of 700 words per full page of the Journal. Authors are advised that the preparation of tables and especially figures is liable to cause a slight increase in publication time. Under no circumstances whatsoever can a complete Short Communication occupy more than four pages of the Journal. Communications should be addressed to the Editorial Secretary, The Biochemical Journal, 7 Warwick Court, London WC1R 5DP. Papers should be complete in themselves; (1) the methods used in experimental work must be adequately described or sufficient references given to allow repetition of the work; (2) sufficient indication of the results of experimental work must be included to justify the claims made.
INDEX OF AUTHORS

Vol. 133

Index of Authors

ALFSEN, A. see CHIANCONE, E. 205–207
ALLEN, G. & LOWE, G. Investigation of the active site of
papain with fluorescent probes 679–686
ANDERSON, J. W. see BURNELL, J. N. 417–428
ANTONINI, E. see CHIANCONE, E. 205–207
ASHWORTH, J. M. see EVERY, D. 37–47; Malkinson,
A. M. 601–603
ATKINS, E. D. T. & LAURENT, T. C. X-ray-diffraction
patterns from chondroitin 4-sulphate, dermapan
sulphate and heparan sulphate 605–606

BABCOCK, D. F. & RICH, M. A. Deoxyribonucleic acid-
dependent ribonucleic acid polymerases from murine
spleen cells. Increased amounts of the nucleolar species
in leukaemic tissue 797–804
BADOWY, A. A.-B. & EVANS, M. The mechanism of inhibition
of rat liver triptophan pyrrolase activity by 4-
hydroxy pyrazolo[3,4-d]pyrimidine (allopurinol) 585–
591
BAGSHAW, C. R. & TRENTHAM, D. R. The reversibility of
adenosine triphosphate cleavage by myosin 323–328
BALDUINI, C., BROVELLI, A., DE LUCA, G., GALLIGANI, L.
& CASTELLANI, A. A. Uridine diphosphate glucose
dehydrogenase from cornea and epithelial-plate
cartilage 243–249
BALINSKY, J. B. see DAVIS, J. S. 667–678
BARRA, D. see BOSSA, F. 805–819
BARRETT, A. J. & STARKEY, P. M. The interaction of 
-
5
-thioglycollate with proteinases. Characteristics and
specificity of the reaction, and a hypothesis concerning
its molecular mechanism 709–724
BENNETT, H. P. J., LOWRY, P. J. & McMArTIN, C.
Confirmation of the 1–20 amino acid sequence of human
adrenocorticotrophin 11–13
BIRNBAUMER, M. E. see GOTTO, A. M. 369–382
BOLTON, A. E. & HUNTER, W. M. The labelling of proteins
to high specific radioactivities by conjugation to a 125I-
containing acylating agent. Application to the radio-
immunoassay 529–538
BOSSA, F., BARRA, D., CARLONI, M., FASella, P., RIVA, F.,
DOONAN, S., DOONAN, H. J., HANFORD, R., VERNON,
C. A. & WALKER, J. M. The primary structure of
aspartate aminotransferase from pig heart muscle.
Partial sequences determined by digestion with thermo-
lysin and elastase 805–819
BOULTER, D. see BROWN, R. H. 251–254
BRANDBENGER, H. see HEDGER, H. 551–561
BRITTON, H. G. Methods of determining rate constants in
single-substrate–single-product enzyme reactions. Use
of induced transport: limitations of product inhibition
255–261
BROCKES, J. P. The deoxyribonucleic acid-modification
enzyme of bacteriophage P1. Subunit structure 629–
633
BROCKLEHURST, K., CARLSON, J., KERSTAN, M. P. J. &
CROOK, E. M. Covalent chromatography. Preparation of
fully active papain from dried papaya latex 573–584
BROCKLEHURST, K. & LITTLE, G. Reactions of papain and
of low-molecular-weight thiols with some aromatic
disulphides. 2,2’-Dipyridyl disulphide as a convenient
active-site titrant for papain even in the presence of other
thiols 67–80
BROCKLEHURST, K. see also PREUVENEERS, M. J. 133–157,
159–164
BROVELLI, A. see BALDUINI, C. 243–249
BROWN, R. H. & BOULTER, D. The amino acid sequence of
cytochrome c from Nigella damascena L. (love-in-a-
mist) 251–254
BRUNORI, M. see CHIANCONE, E. 205–207
BRYCE, C. F. A. & CRICHTON, R. R. The catalytic activity
of horse spleen apoferritin. Preliminary kinetic studies
and the effect of chemical modification 301–309
BRYCE, C. F. A. see also CRICHTON, R. R. 289–299
BULLOCK, S. & WINCHESTER, B. The N-acetylhexos-
amidase components of the ram testis and epididymis
593–599
BURNELL, J. N. & ANDERSON, J. W. Adenosine diphos-
phate sulphurylase activity in leaf tissue 417–428

CAMPBELL, A. M. & JOLLY, D. J. Light-scattering studies
on supercoil unwinding 209–226
CARLONI, M. see BOSSA, F. 805–819
CARLSSON, J. see BROCKLEHURST, K. 573–584
CASE, G. S., SINNOTT, M. L. & TENU, J.-P. The role of
magnesium ions in β-galactosidase-catalysed hydrolyses.
Studies on charge and shape of the β-galactopyranosyl-
bounding site 99–104
CASTELLANI, A. A. see BALDUINI, C. 243–249
CHAPMAN, D. I. see DUMASIA, M. C. 401–404
CHARLWOOD, P. A. Comparison of the sedimentation and
gel-filtration behaviour of human apotransferrin and
its copper and iron complexes 749–754
CHIANCONE, E., ANTONINI, E., BRUNORI, M., ALFSEN, A.
& LAVIALLE, F. Kinetics of the reaction between oxygen
and haemoglobin bound to haptoglobin 203–207
CHRÁK, A. seeivesely, J. 609–613
CLARK, J. B. see PREUVENEERS, M. J. 133–157, 159–164
CRICHTON, R. R. & BRYCE, C. F. A. Subunit interactions
in horse spleen apoferritin. Dissociation by extremes of
pH 289–299
CRICHTON, R. R. see also BRYCE, C. F. A. 301–309
CROOK, E. M. see PREUVENEERS, M. J. 133–157, 159–164,
BROCKLEHURST, K. 573–584
CUMMINS, P. & PERRY, S. V. The subunits and biological
activity of polymorphic forms of tropomyosin 765–
777

DAVIES, R. C. & NEUBERGER, A. Polypropyls formed from
porphobilinogen and amines by uroporphyrinogen
synthetase of Rhodopseudomonas spheroides 471–492
DAVIS, J. S., BALINSKY, J. B., HARINGTON, J. S. &
SHEPHERD, J. B. Assay, properties and mechanism of action of γ-glutamylcysteine synthetase
from the liver of the rat and Xenopus laevis
667–678
DEAN, P. D. G. see LOWE, C. R. 499–506, 507–513,
515–520
DEL CAMPO, G. see VALENZUELA, M. A. 755–763
DE LUCA, G. see BALDUINI, C. 243–249

855
INDEX OF AUTHORS

JANADO, M. see NICHOL, L. W. 15–22
JOHNSON, B. see HUTCHINSON, D. W. 399–400, 493–498
JOHNSTON, I. A., FREARSON, N. & GOLDSPIK, G. The effects of environmental temperature on the properties of myofibrillar adenosine triphosphatase from various species of fish 735–738
JOLLY, D. J. see CAMPBELL, A. M. 209–226

KASSNER, R. J. & YANG, W. The redox potentials of the two-iron plant and algal ferredoxins. An electrostatic model 283–287
KATONA, L. see LAMPORT, D. T. A. 125–132
KELLEY, D. see TOMASIC, J. 789–795
KEDWICK, R. G. O. see GRAY, J. C. 335–347
KERFOOT, M. A. see LOWE, C. R. 507–513
KIERSTAN, M. P. J. see BROCKLEHURST, K. 573–584
KILMARTIN, J. V. The interaction of insoluble hexaphosphate with methaemoglobin 725–733
KNELL, A. J. see HUTCHINSON, D. W. 399–400, 493–498
KOEPEE, R. E. see FLORY, W. 391–394
KUENZLE, C. C., WEIBEL, M. H. & PELLONI, R. R. The reaction of bilirubin with diazomethane 357–364
KUENZLE, C. C., WEIBEL, M. H., PELLONI, R. R. & HEMMERICH, P. Structure and conformation of bilirubin. Opposing views that invoke tautomeric equilibria, hydrogen bonding and a betaine may be reconciled by a one resonance hybrid 364–368
KWASNIAK, J. see MALKINSON, A. M. 601–603

LAMBERD, P. R. & DRABBLE, W. T. Inosine 5'-monophosphate dehydrogenase of Escherichia coli K12: the nature of the inhibition by guanosine 5'-monophosphate 607–608
LAURENT, T. C. see ATKINS, E. D. T. 605–606
LAVIALLE, F. see CHILANCONE, E. 205–207
LEADBETTER, E. see VEGA, J. M. 701–708
LEVY, R. I. see GOTO, A. M. 369–382
LITTLE, G. see BROCKLEHURST, K. 67–80
LLEWELLIN, J. M. see GREEN, M. L. 105–115
LOMAX, J. A. see DREWS, D. T. 563–572
LONDESBOROUGH, J. C., YUAN, S. L. & WEBSTER, L. T., Jr. The molecular weight and thiol residues of acetylcoenzyme A synthetase from ox heart mitochondria 23–36
LOSADA, M. see VEGA, J. M. 701–708
LOWE, C. R. & DEAN, P. D. G. Affinity chromatography of lactate dehydrogenase on immobilized nucleotides 515–520
LOWE, C. R., HARVEY, M. J., CRAVEN, D. B. & DEAN, P. D. G. Some parameters relevant to affinity chromatography on immobilized nucleotides 499–506
LOWE, G. see ALLEN, G. 679–686
LOWRY, P. J. see BENNETT, H. P. J. 11–13
LUX, S. E. see GOTTO, A. M. 369–382
MACLAUGHLIN, J. & TERNER, C. Ribonucleic acid synthesis by spermatocytes from the rat and hamster 635–639
MALKINSON, A. M., KWASNIAK, J. & ASH Worth, J. M. Adenosine 3' 5' cyclic monophosphate binding protein from the cellular slime mould Dicystostelium discoideum 601–603
MANNERS, D. J. see DUNN, G. 413–416
MARIN, E. see VALenzUELA, M. A. 755–763
MARSHALL, L. see GAULDIE, J. 349–356
MASON, R. see ZUBIETA, J. A. 851–854
MATHIAS, A. P. see GONZALEZ-MUJICA, F. 441–455
MCCONNELL, D. J. see HUMPHRIES, P. 201–203
MCINTOSH, C. H. S. & PLUMMER, D. T. Multiple forms of acetylcholinesterase from pig brain 655–665
MCMArtIN, C. see BENNETT, H. P. J. 11–13
Moss, M. S. see DUMASIA, M. C. 401–404

NEUBERGER, A. & RATCLIFFE, W. A. Kinetic studies on the acid hydrolysis of the methyl ketoside of unsubstituted and O-acetylated N-acetylneuraminic acid 623–628
NEUBERGER, A. see also DAVIES, R. C. 471–492
NICHOL, L. W., JANADO, M. & WINZOR, D. J. The origin and consequences of concentration dependence in gel chromatography 15–22
NICHOLAS, D. J. D. see HAWES, C. S. 541–550
NIMNI, M. E. see DESHMUKH, K. 615–622
O’CONNOR, C. see DUMASIA, M. C. 401–404
OSBORNE, W. R. A. & SPENCER, N. Partial purification and properties of the common inherited forms of adenosine deaminase from human erythrocytes 117–123

PANAYOTATOS, N. & VILLEMÈZE, C. L. The formation of a beta-(1→4)-D-galactan chain catalysed by a Phaseolus aureus enzyme 263–271
PEACOCK, D. see PREUVENEERS, M. J. 133–157, 159–164
PELLONI, R. R. see KUENZLE, C. C. 357–364, 364–368
PERRY, S. V. see CUMMINS, P. 765–777
PHILLIPS, J. & DREWSEN, H. M. A. collagenase in extracts of the invertebrate Bipalium kewense 329–334
POSTGATE, J. R. see ZUBIETA, J. A. 851–854
PREUVENEERS, M. J., PEACOCK, D., CROOK, E. M., CLARK, J. B. & BROCKLEHURST, K. D-3-Hydroxybutyrate dehydrogenase from Rhodopseudomonas spheroides. Kinetic mechanism from steady-state kinetics of the reaction catalysed by the enzyme in solution and covalently attached to diethy laminoethylcellulose 133–137
PREUVENEERS, M. J., PEACOCK, D., CROOK, E. M., CLARK, J. B. & BROCKLEHURST, K. D-3-Hydroxybutyrate dehydrogenase from Rhodopseudomonas spheroides. Kinetics of radioisotope redistribution at chemical equilibrium catalysed by the enzyme in solution 159–164
QUINN, P. J. The association between phosphatidylinositol phosphodiesterase activity and a specific subunit of microtubular protein in rat brain 273–281
Adenosine 5'-sulphophosphate, biosynthesis of, catalysed by adenosine diphasphate sulphurylase in spinach leaves (Burnell, J. N. & Anderson, J. W.) 417–428
Adenosine 5'-sulphophosphate, inhibition by, of the activity of adenosine triphosphate sulphurylase from Saccharomyces cerevisiae (Hawes, C. S. & Nicholas, D. J. D.) 541–550
Adenosine triphosphatase, myofibrillar, effects of environmental temperature on the properties of, from white skeletal muscle of various species of fish (Johnston, I. A., Frearson, N. & Goldspink, G.) 735–738

Acetylcholinesterase, cerebral-cortex, pig, multiple forms of (McIntosh, C. H. S. & Plummer, D. T.) 655–665
Acetyl-coenzyme A synthetase, mitochondrial, heart, ox, molecular weight and thiol groups of (Londereborough, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36
N-Acetyl-β-galactosaminidase separation and properties of multiple forms of N-acetylhexosaminidase possessing activities of N-acetyl-β-glucosaminidase and, from ram testis and epididymis (Bullock, S. & Winchester, B.) 593–599
N-Acetyl-β-glucosaminidase, separation and properties of multiple forms of N-acetylhexosaminidase possessing activities of N-acetyl-β-galactosaminidase and, from ram testis and epididymis (Bullock, S. & Winchester, B.) 593–599
β-N-Acetylhexosaminidase, purification and properties of, and other extracellular glycosidasies from the spent growth medium of Dictyostelium discoideum myxamoebae (Every, D. & Ashworth, J. M.) 37–47
N-Acetylhexosaminidase, separation and properties of multiple forms of, from ram testis and epididymis (Bullock, S. & Winchester, B.) 593–599
N-Acetylneuraminic acid, unsubstituted and O-acetylated, kinetics of the acid and enzymic hydrolyses of the methyl ketoside of (Neuberger, A. & Ratcliffe, W. A.) 623–628
Acid, kinetics of the hydrolyses of the methyl ketoside of unsubstituted and O-acetylated N-acetylneuraminic acid by neuraminidase and (Neuberger, A. & Ratcliffe, W. A.) 623–628
Adenosine 3':5'-'cyclic monophosphate, association between phosphatidylinositol phosphodiesterase activity and a specific subunit obtained by the dissociation of, rat cerebral-cortex microtubular protein with (Quinn, P. J.) 273–281
Adenosine 3':5'-cyclic monophosphate, properties and changes in specific activity of the protein binding, during differentiation of myxamoebae of the slime mould Dictyostelium discoideum (Malkinson, A. M., Kwasniak, J. & Ashworth, J. M.) 601–603
Adenosine deaminase, partial purification and properties of the common inherited forms of, from human erythrocytes (Osborne, W. R. A. & Spencer, N.) 117–123
Adenosine diphosphate sulphurylase, properties of, from spinach leaves (Burnell, J. N. & Anderson, J. W.) 417–428
Adenosine 5'-sulphophosphate, biosynthesis of, catalysed by adenosine diphasphate sulphurylase in spinach leaves (Burnell, J. N. & Anderson, J. W.) 417–428
Adenosine 5'-sulphophosphate, inhibition by, of the activity of adenosine triphosphate sulphurylase from Saccharomyces cerevisiae (Hawes, C. S. & Nicholas, D. J. D.) 541–550
INDEX OF SUBJECTS

Amino acid compositions of peptides obtained by cyanogen bromide cleavage of ox articular-cartilage collagen (Deshmukh, K. & Nimni, M. E.) 615–622

Amino acid sequence of cytochrome c from love-in-a-mist (Brown, R. H. & Boulter, D.) 251–254

Amino acid sequence of protein SCMKB-III A3 from the high-sulphur fraction of wool keratin (Swart, L. S. & Haylett, T.) 641–653

Amino acid sequence, partial, of pig heart-muscle aspartate aminotransferase obtained by analysis of peptides produced by digestion with thermolysin and elastase (Bossa, F., Barra, D., Carloni, M., Basella, P., Riva, F., Doonan, S., Doonan, H. J., Hanford, R., Vernon, C. A. & Walker, J. M.) 805–819

Avidin, properties of subunits of, coupled to Sepharose (Green, N. M. & Toms, E. J.) 687–698

5-aza-cytidine, modulation of the activity of uridine kinase in rat liver by the administration of (Vesely, J. & Chihak, A.) 609–613

Azotobacter chroococcum A.T.C.C. 4412, properties of reduced nicotinamide–adenine dinucleotide-linked nitrite reductase from (Vega, J. M., Guerrero, M. G., Leadbetter, E. & Losada, M.) 701–708

Bacillus licheniformis 6346, chain length of the glycans in the cell walls of, and other bacteria (Ward, J. B.) 395–398

Bacteriophage PI, subunit structure of the deoxyribonucleic acid methylase of (Brookes, J. P.) 629–633

Bacteriophage φX174, light-scattering studies on the unwinding of supercoiled deoxyribonucleic acid from (Campbell, A. M. & Jolly, D. J.) 209–226

Bean, French (Phaseolus vulgaris), partial purification and properties of mevalonate kinase from green leaves and etiolated cotyledons of (Gray, J. C. & Kekwick, R. G. O.) 335–347

Bean, mung (Phaseolus aureus), formation of a β-(1→4)- galactan from uridine diphasphate galactose by a particular enzyme preparation from hypocotyls of (Panayotatos, N. & Villemez, C. L.) 263–271

Benzoyl-l-arginine p-nitroanilide, negatively co-operative binding of, to trypsin (Dixon, H. B. F. & Tipton, K. F.) 837–842

Bilirubin, metal ion complexes of, in aprotic solvents (Hutchinson, D. W., Johnson, B. & Knell, A. J.) 399–400

Bilirubin, novel conformational structure of, stabilized by intramolecular hydrogen bonds (Kuenzle, C. C., Weibel, M. H., Pelloni, R. R. & Hemmerich, P.) 364–368

Bilirubin, reaction of, with diazomethane (Kuenzle, C. C., Weibel, M. H. & Pelloni, R. R.) 357–364

Bilirubin, use of 1-alkyl-3-p-tolyltriazenes for the synthesis of alkyl esters of (Hutchinson, D. W., Johnson, B. & Knell, A. J.) 493–498

Biotin, binding of, by subunits of avidin coupled to Sepharose (Green, N. M. & Toms, E. J.) 687–698

Bipalium kewense, see Planarian

Brain cortex, pig, multiple forms of acetylcholinesterase from (McIntosh, C. H. S. & Plummer, D. T.) 655–665

Brain cortex, rat, association between phosphatidylinositol phosphodiesterase activity and a specific subunit of microtubular protein in (Quinn, P. J.) 273–281

Brain, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and γ-glutamylhydroxylamine glutamyltransferase in, and other tissues in vivo (Helferz, A.) 49–57

Brain, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and γ-glutamylhydroxylamine glutamyltransferase in, and other tissues in vivo (Helferz, A. & Estes, N. A., III) 59–66

Cartilage, articular, ox, isolation and characterization of peptides obtained by cyanogen bromide cleavage of collagen from (Deshmukh, K. & Nimni, M. E.) 615–622

Cartilage, epiphysial-plate, pig, differences in the properties of uridine diphosphate glucose dehydrogenases from ox cornea and, and their possible relevance to differences in the glycosaminoglycan contents of the two tissues (Balduni, C., Brovelli, A., De Luca, G., Galligani, L. & Castellani, A. A.) 243–249

Cartilage, nasal-septum and intervertebral-disc, ox, alkaline cleavage and borohydride reduction of proteoglycans from (Robinson, H. C. & Hopwood, J. J.) 457–470

Cartilage, nasal-septum, ox, multiple aggregation factors in proteoglycan from (Gregory, J. D.) 383–386

Cataract, loss of tryptophan associated with photo-polymerization and yellowing of 3-carboxymethylated lysozyme exposed to light of wavelengths greater than 300 nm and its use as a model system for, in human lens (Dilley, K. J.) 821–826

Cathepsin B1, liver, human, characteristics of the interaction of human $\alpha_2$-macroglobulin with, and other proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724


Cell walls, bacterial, chain length of the glycans in (Ward, J. B.) 395–398

Cells, mammalian, cultured, purification and properties of tetrahydrofolate dehydrogenase from (Gauldie, J., Marshall, L. & Hillcoat, B. L.) 349–356

Ceramide digalactoside, effects of, on the hydrolysis of ceramide trihexoside by a specific $\alpha$-galactosidase from human liver (Ho, M. W.) 1–10

Ceramide lactoside, inhibition by, of the hydrolysis of ceramide trihexoside by a specific $\alpha$-galactosidase from human liver (Ho, M. W.) 1–10

Ceramide trihexoside, hydrolysis of, by a specific $\alpha$-galactosidase from human liver (Ho, M. W.) 1–10

Cerebral cortex, pig, multiple forms of acetylcholinesterase from (McIntosh, C. H. S. & Plummer, D. T.) 655–665

Cerebral cortex, rat, association between phosphatidylinositol phosphodiesterase activity and a specific subunit of microtubular protein in (Quinn, P. J.) 273–281

Chicken egg white, properties of subunits of avidin purified from, coupled to Sepharose (Green, N. M. & Toms, E. J.) 687–698

Chicken, purification and properties of a single pepsinogen from the stomach of, and of the pepsin derived from it (Green, M. L. & Llewelin, J. M.) 105–115

7-Chloro-4-nitrobenzo-2-oxa-1,3-diazole, investigation of the active site of papain with the fluorescent probes 7-(2'-hydroxyethylthio)-4-nitrobenzo-2-oxa-1,3-diazole and (Allen, G. & Lowe, G.) 679–686

Chloroplasts, spinach-leaf, association of adenosine diphosphate sulphohydrylase activity with (Burnell, J. N. & Anderson, J. W.) 417–428

Chondroitin sulphate, X-ray-diffraction patterns from, and other glycosaminoglycans (Atkins, E. D. T. & Laurent, T. C.) 605–606

Chymotrypsin, characteristics of the interaction of human $\alpha_2$-macroglobulin with, and other proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724

Clotting Factor X, purification and properties of, from pig serum and its role in hypercoagulability in vivo (Dupe, R. J. & Howell, R. M.) 311–321

Collagen, articular-cartilage, ox, isolation and characterization of peptides obtained by cyanogen bromide cleavage of (Deshmukh, K. & Nimni, M. E.) 615–622

Collagenase, localization, isolation and partial characterization of, from the planarian Bipalium kewense (Phillips, J. & Dresden, M. H.) 329–334

Copper, role of, in the activity of the active site of human $\alpha_2$-macroglobulin with, and other proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724

Corticotrophin, see Adrenocorticotrophin

Cortisol, different effects of, on the activities of $\gamma$-glutamylhydroxamate synthetase and $\gamma$-glutamylhydroxyalmine glutamyltransferase in rat tissues in vivo (Herzfeld, A. & Estes, N. A., III) 59–66

Cotyledons, etiolated, partial purification and properties of mevalonate kinase from green leaves and, of the French bean (Gray, J. C. & Kekwick, R. G. O.) 335–347

Cupric ions, inhibition by, of the dephosphorylation of membrane-bound phosphoproteins in rat brain homogenates (Weller, M. & Rodnight, R.) 387–389

Cyclic adenosine 3':5'-monophosphate, see Adenosine 3':5'-cyclic monophosphate

Cysteine, protonation of, as an example of negatively cooperative ligand binding (Dixon, H. B. F. & Tipton, K. F.) 837–842

l-Cysteine, reaction of, with 2,2'-dipyridyl disulphide and related compounds (Brocklehurst, K. & Little, G.) 67–80

Cysteine residue, active-site, reaction of the fluorescent probes 7-chloro-4-nitrobenzo-2-oxa-1,3-diazole and 7-(2'-hydroxyethylthio)-4-nitrobenzo-2-oxa-1,3-diazole with, of papain (Allen, G. & Lowe, G.) 679–686

Cytochrome c, amino acid sequence of, from love-in-a-mist (Brown, R. H. & Boulter, D.) 251–254


Dehydrogenases, parameters relevant to the affinity chromatography of, on immobilized oxidized nicotinamide–adenine dinucleotide (Lowe, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506

Vol. 133
INDEX OF SUBJECTS

Deoxyribonucleic acid methylase, subunit structure of, from bacteriophage P1 (Brocks, J. P.) 629–633
Deoxyribonucleic acid, supercoiled, light-scattering studies on the unwindng of, from bacteriophage φX174 (Campbell, A. M. & Jolly, D. J.) 209–226
Depressive illness, possible usefulness of combined tryptophan–allopurinol therapy in the treatment of (Badawy, A. A.-B. & Evans, M.) 585–591
Dermatan sulphate, X-ray-diffraction patterns from, and other glycosaminoglycans (Atkins, E. D. T. & Laurent, T. C.) 605–606
Desulfovibrio desulfuricans N.C.I.B. 8388, purification and physicochemical properties of a four-iron ferredoxin from (Zubieta, J. A., Mason, R. & Postgate, J. R.) 851–854
Deuterium (2H), effect of substitution with, at the α-position on the hydrolysis of aryl β-D-galactopyranosides catalysed by Escherichia coli β-galactosidase (Sinnott, M. L. & Souchard, I. J. L.) 89–98
Development, changes in the activities of γ-glutamylhydroxamate synthetase and γ-glutamyl-glutarylamine glutamyltransferase in rat tissues during (Herzfeld, A. & Estes, N. A., III) 59–66
Development, changes in the activity of uridine kinase in rat liver during (Vesely, J. & Cihák, A.) 609–613
Dexamethasone (9α-fluoro-11β,17,21-trihydroxy-16α-methylpregna-1,4-diene-3,20-dione), production and properties of antisera to, conjugated to bovine serum albumin (Dumasia, M. C., Chapman, D. I., Moss, M. S. & O'Conor, C.) 401–404
Dextran. origin and consequences of concentration-dependence in gel chromatography of, and other macromolecules (Nichol, L. W., Janado, M. & Winzor, D. J.) 15–22
Diazobenzenearsenate, effects of diazotization with, and other chemical modifications on the immunochemical and optical properties of human plasma low-density lipoproteins and their apoproteins (Gotto, A. M., Levy, R. I., Lux, S. E., Birnhaumer, M. E. & Fredrickson, D. S.) 369–382
Diazomethane, reaction of bilirubin with (Kuenzle, C. C., Weibel, M. H. & Pelloni, R. R.) 357–364
Dictyostelium discoideum, see Slime mould
Diethyl pyrocarbonate, reaction of a histidine residue in ox liver glutamate dehydrogenase with (Wallis, R. B. & Holbrook, J. J.) 183–187
Diethylaminomethylcellulose, kinetic mechanism from steady-state kinetics of the reaction catalysed by Rhodopseudomonas spheroides in solution and covalently attached to (Preuveneers, M. J., Peacock, D., Crook, E. M., Clark, J. B. & Brocklehurst, K.) 133–157
Dihydrofolate reductase, purification and properties of, from cultured mammalian cells (Gauldie, J., Marshall, L. & Hillcoat, B. L.) 349–356
Dimethoxybilirubin dimethyl ester, formation of monomethoxybilirubin dimethyl ester and, in the reaction of bilirubin with diazomethane (Kuenzle, C. C., Weibel, M. H. & Pelloni, R. R.) 357–364
Dinitrophenyl β-D-galactopyranosides, effects of aglycone nature and substitution with deuterium at the α-position on the hydrolysis of, catalysed by Escherichia coli β-galactosidase (Sinnott, M. L. & Souchard, I. J. L.) 89–98
Dinitrophenyl β-D-galactopyranosides, effects of methanol and dioxan on the rates of hydrolysis of, catalysed by Escherichia coli β-galactosidase (Sinnott, M. L. & Viratelle, O. M.) 81–87
Dioxan, effects of methanol and, on the rates of hydrolysis of nitrophenyl β-D-galactopyranosides catalysed by Escherichia coli β-galactosidase (Sinnott, M. L. & Viratelle, O. M.) 81–87
2,2'-Dipyridyl disulphide, use of, as a convenient active-site titrant for, even in the presence of other thiols (Brocklehurst, K. & Little, G.) 67–80
Disulphides, aromatic, reactions of papain and of low-molecular-weight thiols with (Brocklehurst, K. & Little, G.) 67–80
Duckweed (Lemna minor), characterization and properties of uridine diposphoate apiose biosynthesized from uridine diposphoate glucuronic acid by diposphoate glucuronate cyclase from (Kindel, P. K. & Watson, R. R.) 227–241
Egg white, chicken, properties of subunits of avidin purified from, coupled to Sepharose (Green, N. M. & Toms, E. J.) 687–698
Enzymes, negatively co-operative binding of substrates to (Dixon, H. B. F. & Tipton, K. F.) 837–842
Epiphydymis, ram, separation and properties of multiple forms of N-acetyhexosaminidase from, and tests (Bullock, S. & Winchester, B.) 593–599
Epiphydymis, rat and hamster, biosynthesis of ribonucleic acid by spermatozoa from (MacLaughlin, J. & Terner, C.) 635–639
Epiphydysial plate, pig, differences in the properties of uridine diposphoate glucose dehydrogenases from ox cornea and cartilage from, and their possible relevance to differences in the glycosaminoglycan contents of the two tissues (Balduni, C., Brovelli, A., De Luca, G., Galligani, L. & Castellani, A. A.) 243–249
Erythrocytes, human, multiple forms of acetylcholinesterase from (Wright, D. L. & Plummer, D. T.) 521–527
Erythrocytes, human, partial purification and properties of the common inherited forms of adenosine deaminase from (Osborne, W. R. A. & Spencer, N.) 117–123
Escherichia coli, effects of aglycone nature and substitution with deuterium at the α-position on the hydrolysis of aryl β-D-galactopyranosides catalysed by β-galactosidase from (Sinnott, M. L. & Souchard, I. J. L.) 89–98
Escherichia coli, effects of methanol and dioxan on the rates of hydrolysis of nitrophenyl β-D-galactopyranosides catalysed by β-galactosidase from (Sinnott, M. L. & Viratelle, O. M.) 81–87
Escherichia coli, kinetics of the hydrolysis of synthetic β-D-glucuronic esters and β-D-glucuronic ethers by β-glucuronidas from ox liver and (Tomašić, J. & Keglević, D.) 789–795
Escherichia coli K12, nature of the inhibition by guanosine monophosphate of the activity of inosine monophosphate dehydrogenase from (Lambden, P. R. & Drabble, W. T.) 607–608

1973
INDEX OF SUBJECTS

Escherichia coli M.R.E. 600, comparison of the unfolding and dissociation of the large ribosomal subunits from and *Rhodopseudomonas spheroides* N.C.I.B. 8253 and (Robinson, A. & Sykes, J.) 739-747

*Escherichia coli*, procedure for the rapid purification of deoxyribonucleic acid-dependent ribonucleic acid polymerase from (Humphries, P., McConnell, D. J. & Gordon, R. L.) 201-203

*Escherichia coli*, role of magnesium ions in hydrolyses catalysed by β-galactosidase from (Case, G. S., Sinnott, M. L. & Tenu, J.-P.) 99-104

Ethoxyformic anhydride, see Diethyl pyrocarbonate

Extensin, identification of galactosylserine linkages in, from tomato cell walls (Lampert, D. T. A., Katona, L. & Roerig, S.) 125-132

Factor X, coagulation, purification and properties of, from pig serum and its role in hypercoagulability in *vivo* (Dupe, R. J. & Howell, R. M.) 311-321

Ferredoxin, four-iron, purification and physicochemical properties of, from *Desulfitobrio desulfiticans* N.C.I.B. 8388 (Zubieta, J. A., Mason, R. & Postgate, J. R.) 851-854

Ferredoxins, two-iron, plant and algal, electrostatic model for the redox potentials of (Kassner, R. J. & Yang, W.) 283-287

Ferritin, apo-, spleen, horse, dissociation of, by extremes of pH (Crichton, R. R. & Bryce, C. F. A.) 289-299

Ferritin, apo-, spleen, horse, kinetic studies and the effect of chemical modification on the catalytic activity of (Bryce, C. F. A. & Crichton, R. R.) 301-309

Ferrous ions, kinetic studies and the effect of chemical modification on the oxidation of, by horse spleen apo-ferritin (Bryce, C. F. A. & Crichton, R. R.) 301-309

Fibrinogen, human, automated cation-exchange chromatography at a high sensitivity (0-0.1 absorbance range) of peptides produced by digestion of, with fibrinogen (Triantaphyllopoulos, E.) 843-845

Fluorescent probes, investigation of the active site of papain with (Allen, G. & Lowe, G.) 679-686

9α-Fluoro-11β,17β,21-trihydroxy-16α-methylprogna-1,4-diene-3,20-dione (dexamethasone), production and properties of antiserum to, conjugated to bovine serum albumin (Dumasia, M. C., Chapman, D. I., Moss, M. S. & O’Connor, C.) 401-404

French bean, see Bean, French

Friend leukaemia virus, increased mounts of nucleolar deoxyribonucleic acid-dependent ribonucleic acid polymerase in spleen of mice infected with (Babcock, D. F. & Rich, M. A.) 797-804

Fructose diphosphate aldolases, comparison of the properties of, from human skeletal muscle and liver (Eagles, P. A. M. & Iqbal, M.) 429-439

β-(1→4)-d-Galactan, formation of, from uridine diphosphate galactose by a particulate enzyme preparation from mung-bean hypocotyls (Panayotatos, N. & Villemez, C. L.) 263-271

α-Galactosidase, liver, human, specific, hydrolysis of ceramide trihexoside by (Ho, M. W.) 1-10

β-Galactosidase, effects of aglycone nature and substitution with deuterium at the α-position on the hydrolysis of aryl β-D-galactopyranosides catalysed by, from *Escherichia coli* (Sinnott, M. L. & Souchard, I. J. L.) 89-98

β-Galactosidase, effects of methanol and dioxan on the rates of hydrolysis of nitrophenyl β-D-galactopyranosides catalysed by, from *Escherichia coli* (Sinnott, M. L. & Viratelle, O. M.) 81-87

β-Galactosidase, role of magnesium ions in hydrolyses catalysed by, from *Escherichia coli* (Case, G. S., Sinnott, M. L. & Tenu, J.-P.) 99-104

Galactosylserine linkages, identification of, in extensin from tomato cell walls (Lampert, D. T. A., Katona, L. & Roerig, S.) 125-132

α-Glucosidase, purification and properties of, and other extracellular glycosidases from the spent growth medium of *Dictyostelium discoideum* myxamoebae (Every, D. & Ashworth, J. M.) 37-47

β-D-Glucuronic esters, synthetic, kinetics of the hydrolysis of, by β-glucuronidases from ox liver and *Escherichia coli* (Tomasić, J. & Keglević, D.) 789-795

β-D-Glucuronic ethers, synthetic, kinetics of the hydrolysis of, by β-glucuronidases from ox liver and *Escherichia coli* (Tomasić, J. & Keglević, D.) 789-795

β-Glucuronidases, kinetics of the hydrolysis of synthetic β-D-galacturonic esters and β-D-glucuronic ethers by, from ox liver and *Escherichia coli* (Tomasić, J. & Keglević, D.) 789-795

Glutamate dehydrogenase, liver, ox, effect of modification of the lysine-126 residue by reaction with 4-iodoacetamidosalicylate on the physical, catalytic and regulatory properties of (Wallis, R. B. & Holbrook, J. J.) 173-182

Glutamate dehydrogenase, liver, ox, reaction of a histidine residue in, with diethyl pyrocarbonate (Wallis, R. B. & Holbrook, J. J.) 183-187

Glutamate dehydrogenases, liver, ox, pig and chicken, identification of a lysine residue as the site at which 4-iodoacetamidosalicylate reacts with (Holbrook, J. J., Roberts, P. A. & Wallis, R. B.) 165-171

Glutamine, determination of asparagine, pyrroolid-2-one-5-carboxylic acid and, in total enzymic hydrolyses of peptides and glycopeptides by gas-liquid chromatography (Hediger, H., Stevens, R. L., Brandenberger, H. & Schmid, K.) 551-561

L-Glutamine-hydroxylamine glutamyltransferase, distinction between the activities of γ-glutamylhydroxamate synthetase and, in rat tissues in *vitro* (Herzfeld, A.) 49-57

L-Glutamine-hydroxylamine glutamyltransferase, distinction between the activities of γ-glutamylhydroxamate synthetase and, in rat tissues in *vivo* (Herzfeld, A. & Estes, N. A., III) 59-66

γ-Glutamylcysteine synthetase, assay, purification, properties and mechanism of action of, from rat and *Xenopus laevis* liver (Davis, J. S., Balinsky, J. B., Harington, J. S. & Shepherd, J. B.) 667-678

γ-Glutamylhydroxamate synthetase, distinction between the activities of L-glutamine–hydroxylamine glutamyltransferase and, in rat tissues in *vitro* (Herzfeld, A.) 49-57

γ-Glutamylhydroxamate synthetase, distinction between the activities of L-glutamine–hydroxylamine glutamyltransferase and, in rat tissues in *vivo* (Herzfeld, A. & Estes, N. A., III) 59-66

Vol. 133
INDEX OF SUBJECTS

Glutathione, role of γ-glutamylcysteine synthetase in the regulation of the biosynthesis of, in rat and Xenopus laevis liver (Davis, J. S., Balinsky, J. B., Harington, J. S. & Shepherd, J. B.) 667–678

Glycans, chain length of, in bacterial cell walls (Ward, J. B.) 395–398

Glycerokinase, parameters relevant to the affinity chromatography of, and other kinases on immobilized adenosine triphosphate (Lowe, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506


Glycoprotein, Tamm-Horsfall, role of determination by elastase (Bossa, P. n.) 864

Glycosaminoglycans, glycans, glycopeptides and, of, in bacterial cell walls (Balduini, A. P.) 395–398

Glycosaminoglycans, differences in the properties of uridine diphosphate glucose dehydrogenases from pig epithelial plate cartilage and ox cornea and their possible relevance to differences in the content of, in the two tissues (Balduini, C., Brovelli, A., De Luca, G., Galligani, L. & Castellani, A. A.) 243–249

Glycosaminoglycans, X-ray-diffraction patterns from (Atkins, E. D. T. & Laurent, T. C.) 605–606

Growth hormone, human, labelling of, and other proteins to high specific radioactivities by conjugation with [125I]iodinated 3-(4-hydroxyphenyl)propionic acid N-hydroxy succinimide ester (Bolton, A. E. & Hunter, W. M.) 529–538

Guanosine monophosphate, nature of the inhibition by, of the activity of inosine monophosphate dehydrogenase from Escherichia coli K 12 (Lambden, P. R. & Drabble, W. T.) 607–608

Haemoglobin, human, kinetics of the reaction between oxygen and, bound to human haptoglobin (Chiancone, E., Antonini, E., Brunori, M., Alfsen, A. & Lavialle, F.) 205–207

Haptens, binding of, by the polypeptide chains derived from rabbit immunoglobulin G antibody molecules (Stevenson, G. T.) 827–836

Haptoglobin, human, kinetics of the reaction between oxygen and human haemoglobin bound to (Chiancone, E., Antonini, E., Brunori, M., Alfsen, A. & Lavialle, F.) 205–207

Heart muscle, pig, affinity chromatography of the lactate dehydrogenase isoenzymes from rabbit skeletal muscle and, on immobilized oxidized nicotinamide–adenine dinucleotide (Lowe, C. R. & Dean, P. D. G.) 515–520

Heart muscle, pig, direct measurement of the binding of protons to the active ternary complex of lactate dehydrogenase from, with o-nitrophenylpyruvate as substrate (Holbrook, J. J.) 847–849

Heart muscle, pig, partial amino acid sequence of aspartate aminotransferase from, obtained by analysis of peptides produced by digestion with thermolysin and elastase (Bossa, F., Barra, D., Carloni, M., Fasella, P., Riva, F., Doonan, S., Doonan, H. J., Hanford, R., Vernon, C. A. & Walker, J. M.) 805–819

Heart muscle, rabbit, biological activity of polymorphic forms of troponymosin from, and from various other types of muscle (Cummins, P. & Perry, S. V.) 765–777

Heart, ox, molecular weight and thiol groups of mitochondrial acetyl-coenzyme A synthetase from (Londesborough, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36

Heavy chains, binding of haptens by light chains and, derived from rabbit immunoglobulin G antibody molecules (Stevenson, G. T.) 827–836

Heavy meromyosin, see Meromyosin, heavy

Hen, see Chicken

Heparan sulphate, X-ray-diffraction patterns from, and other glycosaminoglycans (Atkins, E. D. T. & Laurent, T. C.) 605–606

Histidine residue, reaction of, in ox liver glutamate dehydrogenase with diethyl pyrocarbonate (Wallis, R. B. & Holbrook, J. J.) 183–187

Histones, changes in, and other nuclear proteins from different classes of nuclei from liver of rats treated with thioacetamide (Gonzalez-Mujica, F. & Mathias, A. P.) 441–455

Hydrocortisone, see Cortisol

Hydrogen bonds, intramolecular, novel conformational structure of bilirubin stabilized by (Kuenzle, C. C., Weibel, M. H., Pelloni, R. R. & Hemmerich, P.) 364–368

Hydrogen ions, direct measurement of the binding of, to the active ternary complex of pig heart–muscle lactate dehydrogenase with o-nitrophenylpyruvate as substrate (Holbrook, J. J.) 847–849

Hydrogen isotope (1H), effect of substitution with, at the α-position on the hydrolysis of aryl β-β-galactopyranosides catalysed by Escherichia coli β-galactosidase (Sinnott, M. L. & Souchard, J. L.) 89–98


δ-3-Hydroxybutyrate dehydrogenase, kinetic mechanism from steady-state kinetics of the reaction catalysed by, from Rhodopseudomonas spheroides in solution and covalently attached to diethylaminoethylcellulose (Preuveneers, M. J., Peacock, D., Crook, E. M., Clark, J. B. & Brocklehurst, K.) 133–135

δ-3-Hydroxybutyrate dehydrogenase, kinetics of radioisotope distribution at chemical equilibrium catalysed by, from Rhodopseudomonas spheroides in solution (Preuveneers, M. J., Peacock, D., Crook, E. M., Clark, J. B. & Brocklehurst, K.) 139–164

δ-3-Hydroxybutyrate dehydrogenase, purification of, from Rhodopseudomonas spheroides by affinity chromatography on immobilized oxidized nicotinamide–adenine dinucleotide (Lowe, C. R., Harvey, M. J., Craven, D. B., Kerfoot, M. A., Hollows, M. E. & Dean, P. D. G.) 507–513

7-(2'-Hydroxyethylthio)-4-nitrobenzo-2-oxa-1,3-diazole, investigation of the active site of papain with the fluorescent probes 7-chloro-4-nitrobenzo-2-oxa-1,3-diazole and (Allen, G. & Lowe, G.) 679–686

Hydroxylamine, formation of polyzyrols from porphobilinogen and, and other amines by uroporphyrinogen I synthetase from Rhodopseudomonas spheroides N.C.I.B. 8253 (Davies, R. C. & Neuberger, A.) 471–492
INDEX OF SUBJECTS

p-Hydroxymercuribenzoate, reaction of, with the thiol groups of ox heart mitochondrial acetyl-coenzyme A synthetase (Londesborough, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36

3-(4-Hydroxyphenyl)propionic acid N-hydroxysuccinimide ester, [125I]iodinated, labelling of proteins to high specific radioactivities by conjugation with (Bolton, A. E. & Hunter, W. M.) 529–538

3-(4-Hydroxyphenyl)propionic acid N-succinimide ester, synthesis of (Rudinger, J. C. & Ruegg, U.) 538–539

4-Hydroxypryrazolo[3,4-d]pyrimidine (allopurinol), 3-Hydroxypyridine, protonation of, 3-(4-Hydroxyphenyl)propionic acid

4-Iodoacetamidosalicylate, Inosol hexaphosphate, reaction with (Kilmartin, E. & Hunter, W.) 821–826

Immunoglobulin G, rabbit, binding of hapten by the polypeptide chains derived from (Stevenson, G. T.) 827–836

Inosine monophosphate dehydrogenase, nature of the inhibition by guanosine monophosphate of the activity of, from Escherichia coli K12 (Lambden, P. R. & Drabble, W. T.) 607–608

Inositol hexaphosphate, interaction of, with human methaemoglobin (Kilmartin, J. V.) 725–733

Intervertebral disc, ox, alkaline cleavage and borohydride reduction of proteoglycan from cartilage from (Robinson, H. C. & Hopwood, J. J.) 457–470

Iodine, effects of, and other protein-modifying reagents on the activity of an adenosine triphosphatase isoenzyme from potato tuber (Valenzuela, M. A., del Campo, G., Marin, E. & Traverso-Cori, A.) 755–763

Iodine isotope (125I), labelling of proteins with, to high specific radioactivities by conjugation with 125I iodinated 3-(4-hydroxyphenyl)propionic acid N-hydroxysuccinimide ester (Bolton, A. E. & Hunter, W. M.) 529–538

4-Iodoacacetamidosalicylate, effect of modification of the lysine-126 residue by reaction with, on the physical, catalytic and regulatory properties of ox liver glutamate dehydrogenase (Wallis, R. B. & Holbrook, J. J.) 173–182

4-Iodoacacetamidosalicylate, identification of a lysine residue as the site of the reaction of, with glutamate dehydrogenases from ox, pig and chicken liver (Holbrook, J. J., Roberts, P. A. & Wallis, R. B.) 165–171

Iodoacetate, inhibitory effect of carboxymethylation with, on the catalytic activity of horse spleen apoferritin (Bryce, C. F. A. & Crichton, R. R.) 301–309

Iron, comparison of the sedimentation and gel-filtration behaviour of human apotransferrin and its complexes with copper and (Charlwood, P. A.) 749–754

Iron–sulphur protein, evidence for an adenosine triphosphate-induced association of, that is a component of nitrogenase from Klebsiella pneumoniae (Thorneley, R. N. F. & Eady, R. R.) 405–408

Keratin, wool, amino acid sequence of protein SCMKB-III A3 from the high-sulphur fraction of (Swart, L. S. & Haylett, T.) 641–653

Kidney, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and 1-glutamine-hydroxylamine glutamyltransferase in, and other tissues in vivo (Herzf eld, A. & Estes, N. A., III) 59–66

Kidney, rat, purification and properties of arginase from (Kaysen, G. A. & Strecker, H. J.) 779–788

Kinases, parameters relevant to the affinity chromatography of, on immobilized adenosine triphosphate (Low, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506

Klebsiella pneumoniae, evidence for an adenosine triphosphate-induced association of the iron-sulphur protein component of nitrogenase from (Thorneley, R. N. F. & Eady, R. R.) 405–408

Lactate dehydrogenase, affinity chromatography of the pig heart-muscle and rabbit skeletal-muscle isoenzymes of, on immobilized oxidized nicotinamide-adenine dinucleotide (Low, C. R. & Dean, P. D. G.) 515–520

Lactate dehydrogenase, heart-muscle, pig, direct measurement of the binding of protons to the active ternary complex of, with o-nitrophenylpyruvate as substrate (Holbrook, J. J.) 847–849

Lactate dehydrogenase, parameters relevant to the affinity chromatography of, and other dehydrogenases on immobilized oxidized nicotinamide-adenine dinucleotide (Low, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506

Leaves, green, partial purification and properties of mevalonate kinase from etiolated cotyledons and, of the French bean (Gray, J. C. & Kekwick, R. G. O.) 335–347

Leaves, spinach, properties of adenosine diphosphate sulphurylase from (Burnell, N. J. & Anderson, J. W.) 417–428

Lemna minor, see Duckweed

Lens, human, loss of tryptophan associated with photopolymerization and yellowing of S-carboxymethylated lysosome-exposed to light of wavelengths greater than 300nm and its use as a model system for cataract in (Dilley, K. J.) 821–826

Leukaemia virus, Friend, increased amounts of nucleolar deoxyribonucleic acid-dependent ribonuclease in spleen of mice infected with (Babcock, D. F. & Rich, M. A.) 797–804

Light chains, binding of hapten by heavy chains and, derived from rabbit immunoglobulin G antibody molecules (Stevenson, G. T.) 827–836

Light, loss of tryptophan associated with photopolymerization and yellowing of proteins exposed to, of wavelengths greater than 300nm (Dilley, K. J.) 821–826

Limit dextrinases, action of, on amylopectin-like polysaccharides (Dunn, G., Hardie, D. G. & Manners, D. J.) 413–416


Vol. 133


Liver, human, comparison of the properties of fructose diphosphate aldolases from, and skeletal muscle (Eagles, P. A. M. & Iqbal, M.) 429–439

Liver, human, hydrolysis of ceramide trihexoside by a specific α-galactosidase from (Ho, M. W.) 1–10

Liver, mouse, purification and properties of 5'-nucleotidase from plasma membranes from (Evans, W. H. & Gurd, J. W.) 189–199

Liver, ox, effect of modification of the lysine-126 residue by reaction with 4-iodoacetamidosalicylate on the physical, catalytic and regulatory properties of glutamate dehydrogenase from (Wallis, R. B. & Holbrook, J. J.) 173–182

Liver, ox, kinetics of the hydrolysis of synthetic β-D-glucuronic esters and β-D-glucuronic ethers by β-glucuronidases from *Escherichia coli* and (Tomasić, J. & Keglević, D.) 789–795

Liver, ox, pig and chicken, identification of a lysine residue as the site at which 4-iodoacetamidosalicylate reacts with glutamate dehydrogenases from (Holbrook, J. J., Roberts, P. A. & Wallis, R. B.) 165–171

Liver, ox, reaction of a histidine residue in glutamate dehydrogenase from, with diethyl pyrocarbonate (Wallis, R. B. & Holbrook, J. J.) 183–187

Liver, rat and *Xenopus laevis*, assay, purification, properties and mechanism of action of γ-glutamylcysteine synthetase from (Davis, J. S., Balinsky, J. B., Harington, J. S. & Shepherd, J. B.) 667–678

Liver, rat, changes in the nuclear proteins from different classes of nuclei from, after treatment of the animals with thiocetamide (Gonzalez-Mujica, F. & Mathias, A. P.) 441–455

Liver, rat, differences between the properties of arginases from rat kidney and (Kaysen, G. A. & Strecker, H. J.) 779–788

Liver, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and L-glutamine–hydroxylamine glutamyltransferase in, and other tissues in vitro (Herzfeld, A.) 49–57

Liver, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and L-glutamine–hydroxylamine glutamyltransferase in, and other tissues in vitro (Herzfeld, A. & Estes, N. A., III) 59–66

Liver, rat, lack of temperature-sensitivity of pyruvate kinase from (Flory, W. & Koeppe, R. E.) 391–394

Liver, rat, mechanism of inhibition by allopurinol of the activity of tryptophan pyrrolase in, in vivo and in vitro (Badawy, A. A.-B. & Evans, M.) 585–591

Liver, rat, modulation of the activity of uridine kinase in, by the administration of 5-azacytidine (Vesely, J. & Cháck, A.) 609–613

Love-in-a-mist (*Nigella damascena*), amino acid sequence of cytochrome c from (Brown, R. H. & Boulter, D.) 251–254

Lung, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and L-glutamine–hydroxylamine glutamyltransferase in, and other tissues in vitro (Herzfeld, A.) 49–57

Luteotrophi, human, labelling of, and other proteins to high specific radioactivities by conjugation with [*131*I]-iodinated 3-(4-hydroxyphenyl)propionic acid N-hydroxysuccinimide ester (Bolton, A. E. & Hunter, W. M.) 529–538

*Lycopersicon esculentum*, see Tomato

Lysine-126 residue, effect of modification of, by reaction with 4-iodoacetamidosalicylate on the physical, catalytic and regulatory properties of ox liver glutamate dehydrogenase (Wallis, R. B. & Holbrook, J. J.) 173–182

Lysine-126 residue, identification of, as the site at which 4-iodoacetamidosalicylate reacts with ox liver glutamate dehydrogenase (Holbrook, J. J., Roberts, P. A. & Wallis, R. B.) 165–171

Lysozyme, S-carboxymethylated, loss of tryptophan associated with photo-polymerization and yellowing of, exposed to light of wavelengths greater than 300 nm (Dilley, K. J.) 821–826

α2-Macroglobulin, human, characteristics and specificity of the interaction of, with proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724

Magnesium ions, role of, in hydrolyses catalysed by *Escherichia coli* β-galactosidase (Case, G. S., Sinnott, M. L. & Tenu, J-P.) 99–104

α2-Mannosidases, two, purification and properties of, and other extracellular glycosidases from the spent growth medium of *Dictyostelium discoideum* myxamoebae (Every, D. & Ashworth, J. M.) 37–47

Membranes, plasma, liver, mouse, purification and properties of 5'-nucleotidase from (Evans, W. H. & Gurd, J. W.) 189–199

Membranes, state of phosphorylation in vivo of phosphoproteins bound to, in rat brain (Weller, M. & Rodnight, R.) 387–389

2-Mercaptoethanol, reaction of, with 2,2'-dipyridyl disulphide and related compounds (Brocklehurst, K. & Little, G.) 67–80

Meromyosin, heavy, skeletal-muscle, rabbit, reversibility of the cleavage of adenosine triphosphate by (Bagshaw, C. R. & Trentham, D. R.) 323–328

Messenger ribonucleic acid, see Ribonucleic acid, messenger

Methaemoglobin, human, interaction of inositol hexaphosphate with (Kilmartin, J. V.) 725–733

Methanol, effect of, on the rates of hydrolysis of nitrophenyl β-D-galactopyranosides catalysed by *Escherichia coli* β-galactosidase (Sinnott, M. L. & Viratelle, O. M.) 81–87

1973
INDEX OF SUBJECTS

Methoxyamine, formation of polypyroles from porphobilinogen and, and other amines by uroporphyrinogen I synthetase from Rhodopseudomonas spheroides N.C.I.B. 8253 (Davies, R. C. & Neuberger, A.) 471–492

Methyl aceticidate, effects of amidination with, and other chemical modifications on the immunochemical and optical properties of human low-density lipoproteins and their apoproteins (Gotto, A. M., Levy, R. I., Lux, S. E., Birnbaumer, M. E. & Fredrickson, D. S.) 369–382

2-O-Methyl-N-acetylneuraminic acid, unsubstituted and O-acetylated, kinetics of the acid and enzymic hydrolyses of (Neuberger, A. & Ratcliffe, W. A.) 623–628

Mevalonate kinase, partial purification and properties of, from green leaves and etiolated cotyledons of the French bean (Gray, J. C. & Kekwick, R. G. O.) 335–347

Microtubules, association between phosphoryl dinositol phosphodiesterase activity and a specific subunit of the protein of, in rat cerebral cortex (Quinn, P. J.) 273–281

Mitochondria, heart, rabbit, multiple aggregation of, and muscle (Gregory, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36

Monomethoxybilirubin dimethyl ester, formation of dimethoxybilirubin dimethyl ester and, in the reaction of bilirubin with diazomethane (Kuenzle, C., Weibel, M. H. & Pelloni, R. R.) 357–364

Mung bean, soybean, muscle, adductor, Pecten maximus, biological activity of polymorphic forms of tropomyosin from, and from various other types of muscle (Cummins, P. & Perry, S. V.) 765–777

Muscle, heart, pig, partial purification of muscle, heart, pig, partial association and, muscle (Lowe, C. R. & Dean, P. D. G.) 515–520

Muscle, heart, pig, direct measurement of the binding of protons to the active ternary complex of lactate dehydrogenase from, with o-nitrophenylpyruvate as substrate (Holbrook, J. J.) 847–849

Muscle, heart, pig, partial amino acid sequence of aspartate aminotransferase, obtained from, and, by analysis of peptides produced by digestion with thermolysin and elastase (Bossa, F., Barra, D., Carloni, M., Fasella, P., Riva, F., Doonan, S., Doonan, H. J., Hanford, R., Vernon, C. A. & Walker, J. M.) 805–819

Muscle, heart, rabbit, biological activity of polymorphic forms of tropomyosin from, and from various other types of muscle (Cummins, P. & Perry, S. V.) 765–777

Muscle, skeletal, affinity chromatography of the lactate dehydrogenase isoenzymes from rabbit skeletal muscle and, on immobilized oxidized nicotinamide–adenine dinucleotide (Lowe, C. R. & Dean, P. D. G.) 515–520

Muscle, skeletal, heart, properties of, and muscle from, obtained from rabbit skeletal muscle (Gregory, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36

Muscle, skeletal, rabbit, affinity chromatography of the lactate dehydrogenase isoenzymes from pig heart muscle and, on immobilized oxidized nicotinamide–adenine dinucleotide (Lowe, C. R. & Dean, P. D. G.) 515–520

Muscle, skeletal, rabbit, reversibility of the cleavage of adenosine triphosphate by myosin from (Bagshaw, C. R. & Trentham, D. R.) 323–328

Muscle, skeletal, rabbit, subunits and biological activity of polymorphic forms of tropomyosin from, and from various other types of muscle (Cummins, P. & Perry, S. V.) 765–777

Muscle, skeletal, rat, distinction between the activities of γ-glutamylhydroxamate synthetase and l-glutamine–hydroxylamine glutamyltransferase in, and other tissues in vitro (Herzfeld, A.) 49–57

Muscle, skeletal, white, effects of environmental temperature on the properties of myofibrillar adenosine triphosphatase from, of various species of fish (Johnston, I. A., Frearson, N. & Goldspink, G.) 735–738

Myofibrils, effects of environmental temperature on the properties of adenosine triphosphatase of, from white skeletal muscle of various species of fish (Johnston, I. A., Frearson, N. & Goldspink, G.) 735–738

Myosin, skeletal-muscle, rabbit, reversibility of the cleavage of adenosine triphosphate by (Bagshaw, C. R. & Trentham, D. R.) 323–328

Myxamoebae, Dictyostelium discoideum, purification and properties of extracellular glycosidases from the spent growth medium of (Every, D. & Ashworth, J. M.) 37–47

Myxamoebae, properties and changes in specific activity of adenosine 3',5'-cyclic monophosphate-binding protein during differentiation of, of the slime mould Dictyostelium discoideum (Malkinson, A. M., Kwasniak, J. & Ashworth, J. M.) 601–603

Nasal septum, ox, alkaline cleavage and borohydride reduction of proteoglycan from cartilage from (Robinson, H. C. & Hopwood, J. J.) 457–470

Nasal septum, ox, multiple aggregation factors in proteoglycan from cartilage of (Gregory, J. D.) 383–386

Nicotinamidase, kinetics of the hydrolyses of the methyl ketoside of unsubstituted and O-acetylated N-acetylneuraminic acid by acid and (Neuberger, A. & Ratcliffe, W. A.) 623–628

Nicotinamide–adenine dinucleotide, oxidized, immobilized, affinity chromatography of the pig heart-muscle and rabbit skeletal-muscle isoenzymes of lactate dehydrogenase on (Lowe, C. R. & Dean, P. D. G.) 515–520

Nicotinamide–adenine dinucleotide, oxidized, immobilized, parameters relevant to the affinity chromatography of dehydrogenases on (Lowe, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506


Nigella damascena, see Love-in-a-mist


Nitrite, induction of reduced nicotinamide–adenine dinucleotide-linked nitrite reductase in Azotobacter chroococcum A.T.C.C. 4412 grown in the presence of nitrate or (Vega, J. M., Guerrero, M. G., Leadbetter, E. & Losada, M.) 701–708

Vol. 133
Nitrite reductase, reduced nicotinamide–adenine dinucleotide-linked, properties of, from *Azotobacter chroococcum* A.T.C.C. 4412 (Vega, J. M., Guerrero, M. G., Leadbetter, E. & Losada, M.) 701–708

Nitrogenase, evidence for an adenosine triphosphate-induced association of the iron–sulphur protein component of, from *Klebsiella pneumoniae* (Thorneley, R. N. F. & Eady, R. R.) 405–408

Nitrophenyl β-D-galactopyranosidases, effects of aglycone nature and substitution with deuterium at the α-position on the hydrolysis of, catalysed by *Escherichia coli* β-galactosidase (Sinnott, M. L. & Souchard, I. J. L.) 89–98

Nitropheny 1-β-D-galactopyranosidases, effects of methodanol and dioxan on the rates of hydrolysis of, catalysed by *Escherichia coli* β-galactosidase (Sinnott, M. L. & Viratelle, O. M.) 81–87

α-Nitrophenoxypruvate, direct measurement of the binding of protons to the active ternary complex of pig heart-muscle lactate dehydrogenase with, as substrate (Holbrook, J. J.) 847–849

Nuclear proteins, changes in, from different classes of nuclei from liver of rats treated with thioacetamide (Gonzalez-Mujica, F. & Mathias, A. P.) 441–455

Nuclei, increased biosynthesis of ribonucleic acid in, of spleen of mice infected with Friend leukemia virus (Babcock, D. F. & Rich, M. A.) 797–804

Nuclei, liver, rat, changes in the nuclear proteins from different classes of, after treatment of the animals with thioacetamide (Gonzalez-Mujica, F. & Mathias, A. P.) 441–455

Nucleoli, increased amounts of deoxyribonucleic acid-dependent ribonucleic acid polymerase of, in spleen of mice infected with Friend leukemia virus (Babcock, D. F. & Rich, M. A.) 797–804

5'-Nucleotidase, purification and properties of, from mouse liver plasma membranes (Evans, W. H. & Gurd, J. W.) 189–199

Nucleotides, immobilized, affinity chromatography of the pig heart-muscle and rabbit skeletal-muscle isoenzymes of lactate dehydrogenase on (Lowe, C. R. & Dean, P. D. G.) 515–520

Nucleotides, immobilized, parameters relevant to the affinity chromatography of dehydrogenases and kinases in (Lowe, C. R., Harvey, M. J., Craven, D. B. & Dean, P. D. G.) 499–506


Osmotic effects, consequences of, in gel chromatography (Nichol, L. W., Janado, M. & Winzor, D. J.) 15–22

Oxygen, kinetics of the reaction between, and human haemoglobin bound to human haptoglobin (Chiancone, E., Antonini, E., Brunori, M., Alfsen, A. & Lavialle, F.) 205–207

Papain, characteristics of the interaction of human α2-macroglobulin with, and other proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724

Papain, fully active, use of covalent chromatography for the preparation of, from dried papaya latex (Brocklehurst, K., Carlsson, J., Kierstan, M. P. J. & Crook, E. M.) 573–584

Papain, investigation of the active site of, with the fluorescent probes 7-chloro-4-nitrobenzo-2-oxa-1,3-diazole and 7-(2'-hydroxyethylthio)-4-nitrobenzo-2-oxa-1,3-diazole (Allen, G. & Lowe, G.) 679–686

Papain, use of 2,2'-dipyridyl disulphide as a convenient active-site titrant for, even in the presence of other thiols (Brocklehurst, K. & Little, G.) 67–80

Papaya latex, dried, use of covalent chromatography for the preparation of fully active papain from (Brocklehurst, K., Carlsson, J., Kierstan, M. P. J. & Crook, E. M.) 573–584

Pepsin, purification and properties of a single pepsinogen from chicken stomach and of, derived from it (Green, M. L. & Llewellin, J. M.) 105–115

Pepsinogen, purification and properties of, from chicken stomach and of the pepsin derived from it (Green, M. L. & Llewellin, J. M.) 105–115

Peptides, automated cation-exchange chromatography of, at a high sensitivity (0–0.1 absorbance range) (Triantaphyllopoulos, E.) 843–845


Peptides, isolation and characterization of, obtained by cyanogen bromide cleavage of ox articular-cartilage collagen (Deshmukh, K. & Nimmi, M. E.) 615–622

Peptides, partial amino acid sequence of pig heart-muscle aspartate aminotransferase obtained by analysis of, produced by digestion with thermolysin and elastase (Boss, F., Barra, D., Carloni, M., Fasella, P., Riva, F., Doonan, S., Doonan, H. J., Hanford, R., Vernon, C. A. & Walker, J. M.) 805–819

Peptidoglycans, glycan chain length of, in bacterial cell walls (Ward, J. B.) 395–398

pH, dissociation of horse spleen apoferritin by extremes of (Crichton, R. R. & Bryce, C. F. A.) 289–299

pH, effect of, on the rates of hydrolysis of nitrophphenyl β-D-galactopyranosidases catalysed by *Escherichia coli* β-galactosidase (Sinnott, M. L. & Viratelle, O. M.) 81–87

Phage, see Bacteriophage

*Phaseolus aureus*, see Bean, mung

*Phaseolus vulgaris*, see Bean, French

Phosphatidylinositol phosphodiesterase, association between the activity of, and a specific subunit of microtubular protein in rat cerebral cortex (Quinn, P. J.) 273–281


Plasma membranes, see Membranes, plasma
Polypyrroles, formation of, from porphobilinogen and
amines by uroporphyrinogen I synthetase from Rhodo-
pseudomonas spheroides N.C.I.B. 8253 (Davies, R. C. &
Neuberger, A.) 471–492
Polysaccharides, amylopectin-like, action of limit dex-
trinas on (Dunn, G., Hardie, D. G. & Manners, D. J.) 413–416
Polysaccharides, origin and consequences of concentra-
tion-dependence in gel chromatography of, and other macromolecules (Nichol, L. W., Janado, M. & Winzor,
D. J.) 15–22
Porphobilinogen, formation of polypyrroles from, and
amines by uroporphyrinogen I synthetase from Rhodo-
pseudomonas spheroides N.C.I.B. 8253 (Davies, R. C. &
Neuberger, A.) 471–492
Potato (Solanum tuberosum) tuber, effects of protein-
modifying reagents on the activity of an adenosine
triphosphatase isoenzyme from (Valenzuela, M. A., del
Campo, G., Marin, E. & Traverso-Cori, A.) 755–763
Proflavine, light-scattering studies on the unwinding
of supercoiled deoxyribonucleic acid from bacteriophage
φX174 as a result of the binding of (Campbell, A. M. &
Jolly, D. J.) 209–226
Proteases, see Proteinases
Protein, adenosine 3′:5′-cyclic monophosphate-binding,
properties and changes in the specific activity of, during
differentiation of myxamoebae of the slime mould
Dictyostelium discoideum (Malkinson, A. M., Kwasniak,
J. & Ashworth, J. M.) 601–603
Protein, iron–sulfur, evidence for an adenosine triphos-
phate-induced association of, that is a component of
nitrogenase from Klebsiella pneumoniae (Thorneley,
R. N. F. & Eady, R. R.) 405–408
Protein, microtubular, association between phosphatidyl-
inositol phosphodiesterase activity and a specific sub-
unit of, in rat cerebral cortex (Quinn, P. J.) 273–281
Protein, production and properties of antisera to
dexamethasone (9α-fluoro-11β,17,21-trihydr oxy-16α-
methylpregna-1,4-diene-3,20-dione) conjugated to
(Dumasia, M. C., Chapman, D. L., Moss, M. S. &
O’Connor, C.) 401–404
Protein SCMKB-III A3, amino acid sequence of, from
the high-sulfur fraction of wool keratin (Swart, L. S.
& Haylett, T.) 641–653
Proteinases, characteristics and specificity of the inter-
action of human α2-macroglobulin with, and a hypo-
thesis concerning its molecular mechanism (Barrett,
A. J. & Starkey, P. M.) 709–724
Protein–polysaccharide, see Proteoglycan
Proteins, chromosomal, non-histone, changes in, and
other nuclear proteins from different classes of nuclei
from liver of rats treated with thioacetamide
(Gonzalez-Mujica, F. & Mathias, A. P.) 441–455
Proteins, labelling of, to high specific radioactivities by
conjugation with [125I]iodinated 3-(4-hydroxyphenyl)-
propionic acid N-hydroxysuccinimide ester (Bolton,
A. E. & Hunter, W. M.) 529–538
Proteins, loss of tryptophan associated with photo-poly-
merization and yellowing of, exposed to light of wave-
lengths greater than 300 nm (Dilley, K. J.) 821–826
Proteins, nuclear, changes in, from different classes of
nuclei from liver of rats treated with thioacetamide
(Gonzalez-Mujica, F. & Mathias, A. P.) 441–455
Proteins, origin and consequences of concentration-
dependence in gel chromatography of, and other macro-
molecules (Nichol, L. W., Janado, M. & Winzor,
D. J.) 15–22
Proteins, ribosomal, dissociation of, from the large ribo-
 somal subunits of Rhodopseudomonas spheroides
N.C.I.B. 8253 and Escherichia coli M.R.E. 600 by high
concentrations of univalent cations (Robinson, A. &
Sykes, J.) 739–747
Proteoglycan, cartilage, nasal-septum, ox, multiple aggre-
gation factors in (Gregory, J. D.) 383–386
Proteoglycans, alkaline cleavage and borohydride reduc-
tion of, from ox nasal-septum and intervertebral-disc
cartilage (Robinson, H. C. & Hopwood, J. J.) 457–
470
Proteoglycans, differences in the properties of uridine
diphosphate glucose dehydrogenases from pig epiphy-
sial-plate cartilage and ox cornea and their possible
relevance to differences in the contents of, in the two
tissues (Balduini, C., Brovelli, A., De Luca, G.,
Galligani, L. & Castellani, A. A.) 243–249
Protons, direct measurement of the binding of, to the
active ternary complex of pig heart-muscle lactate
hydrogenase with o-nitrophenylpyruvate as substrate
(Holbrook, J. J.) 847–849
Pseudomonas aeruginosa N.C.T.C. 1999, compositions
and some structural features of lipid A fractions from
the lipopolysaccharides of Pseudomonas alcaligenes and
(Drewry, D. T., Lomax, J. A., Gray, G. W. & Wilkinson,
S. G.) 563–572
Pseudomonas alcaligenes, compositions and some struc-
tural features of lipid A fractions from the lipopoly-
saccharides of Pseudomonas aeruginosa N.C.T.C. 1999
and (Drewry, D. T., Lomax, J. A., Gray, G. W. &
Wilkinson, S. G.) 563–572
Pseudomonas oxalaticus, purification of L-threonine de-
hydrogenase from, by affinity chromatography on
immobilized oxidized nicotinamide–adenine dinucleo-
tide (Lowe, C. R., Harvey, M. J., Craven, D. B., Kerfoot,
M. A., Hollows, M. E. & Dean, P. D. G.) 507–513
Pyrogallutamic acid, see Pyrrolyld-2-one-5-carboxylic
acid Pyrrolyld-2-one-5-carboxylic acid, determination of aspara-
gine, glutamine and, in total enzymic hydrolysates of
peptides and glycopeptides by gas–liquid chromato-
graphy (Hediger, H., Stevens, R. L., Brandenberger, H.
& Schmid, K.) 551–561
Pyruvate kinase, liver, rat, lack of temperature-sensitivity
of (Flory, W. & Koepppe, R. E.) 391–394
Rate constants, methods for the determination of, in
single-substrate-single-product enzyme reactions
(Britton, H. G.) 255–261
Red blood cells, see Erythrocytes
Redox potential, effect of inositol hexaphosphate on, of
human methaemoglobin (Kilmartin, J. V.) 725–733
Redox potentials, electrostatic model for, of plant and
algae two-iron ferredoxins (Kassner, W. J. & Yang, W.)
283–287
Reticuloocytes, rabbit, sodium fluoride-treated, persistent
attachment of monoribosomes to messenger ribonucleic
acid, in (Geraghty, M., Galler, M., Schifflman, F. &
Freedman, M.) 409–411
Vol. 133
INDEX OF SUBJECTS
869
Rhodopseudomonas spheroides, kinetic mechanism from steady-state kinetics of the reaction catalysed by D-3-hydroxybutyrate dehydrogenase from, in solution and covalently attached to diethylaminoethylcellulose (Preuneneers, M. J., Peacock, D., Crook, E. M., Clark, J. B. & Brocklehurst, K.) 133–157

Rhodopseudomonas spheroides, kinetics of radioisotope distribution at chemical equilibrium catalysed by D-3-hydroxybutyrate dehydrogenase from, in solution (Preuneneers, M. J., Peacock, D., Crook, E. M., Clark, J. B. & Brocklehurst, K.) 159–164

Rhodopseudomonas spheroides N.C.I.B. 8253, comparison of the unfolding and dissociation of the large ribosomal subunits from Escherichia coli M.R.E. 600 and (Robinson, A. & Sykes, J.) 795–747

Ribonuclease A, biosynthesis of, by rat and hamster epididymal spermatozoa (MacLaughlin, J. & Terner, C.) 635–639

Ribonuclease A, increased biosynthesis of, in nuclei of spleen of mice infected with Friend leukaemia virus (Babcock, D. F. & Rich, M. A.) 797–804

Ribonuclease A, messenger, persistent attachment of monoribosomes to, in sodium fluoride-treated rabbit reticulocytes (Geraghty, M., Galler, M., Schiffman, F. & Freedman, M.) 409–411

Ribonuclease A polymerase, deoxyribonuclease acid-dependent, nucleolar, increased amounts of, in spleen of mice infected with Friend leukaemia virus (Babcock, D. F. & Rich, M. A.) 797–804

Ribonuclease A polymerase, deoxyribonuclease acid-dependent, procedure for the rapid purification of, from Escherichia coli (Humphries, P., McConnell, D. J. & Gordon, R. L.) 201–203

Ribosomal subunits, large, comparison of the unfolding and dissociation of, from Rhodopseudomonas spheroides N.C.I.B. 8253 and Escherichia coli M.R.E. 600 (Robinson, A. & Sykes, J.) 739–747

Ribosomal monomers, persistent attachment of, to messenger ribonuclease acid in sodium fluoride-treated rabbit reticulocytes (Geraghty, M., Galler, M., Schiffman, F. & Freedman, M.) 409–411

Rubredoxin, one-iron, electrostatic model for the redox potentials of plant and algal two-iron ferredoxins and of (Kassner, R. J. & Yang, W.) 283–287

Saccharomyces cerevisiae, purification and properties of adenosine triphosphate sulphurylase from (Hawes, C. S. & Nicholas, D. J. D.) 541–550

Sephadex G-100 gel, origin and consequences of concentration-dependence in chromatography on (Nichol, L. W., Janado, M. & Winzor, D. J.) 15–22

Sepharose, probability of interactions between molecules copurified to (Green, N. M.) 698–700

Sepharose, properties of subunits of avidin coupled to (Green, N. M. & Toms, E. J.) 687–698

Serine residues, two, linkage of a single galactose residue to each of, in extensin from tomato cell walls (Lampot, D. T. A., Katona, L. & Roerig, S.) 125–132

Serum albumin, see Albumin, serum

Serum, pig, purification and properties of Factor X from, and its role in hypercoagulability in vivo (Dupe, R. J. & Howell, R. M.) 311–321

Sialic acid residues, evidence that O-acetylation is responsible for the resistance of, of rabbit Tamm–Horsfall glycoprotein towards acid and enzymic hydrolysis (Neuberger, A. & Ratcliffe, W. A.) 623–628

Skeletal muscle, see Muscle, skeletal

Slime mould (Dictyostelium discoideum), properties and changes in specific activity of adenozine 3':5'-cyclic-monophosphate-binding protein during differentiation of myxamoebae of (Malkinson, A. M., Kwasniak, J. & Ashworth, J. M.) 601–603

Slime mould (Dictyostelium discoideum), purification and properties of extracellular glycosidases from the spent growth medium of myxamoebae of (Every, D. & Ashworth, J. M.) 37–47

Sodium chloride, inhibition by, of the hydrolysis of ceramide trihexoside by a specific a-galactosidase from human liver (Ho, M. W.) I–10

Solanum tuberosum, see Potato

Somatotrophin, see Growth hormone

Spermatozoa, epididymal, rat and hamster, biosynthesis of ribonuclease acid by (MacLaughlin, J. & Terner, C.) 635–639

Spinacea oleracea, see Spinach

Spinach (Spinacea oleracea) leaves, properties of adenosine diphosphate sulphurylase from (Burnell, J. N. & Anderson, J. W.) 417–428

Spleen, horse, dissociation of apoferitin from, by extremes of pH (Crichton, R. R. & Bryce, C. F. A.) 289–299

Spleen, horse, kinetic studies and the effect of chemical modification on the catalytic activity of apoferitin from (Bryce, C. F. A. & Crichton, R. R.) 301–309

Spleen, increased amounts of nucleolar deoxyribonuclease acid-dependent ribonuclease acid polymerase in, of mice infected with Friend leukaemia virus (Babcock, D. F. & Rich, M. A.) 797–804

Stomach, chicken, purification and properties of a single pepsinogen from, and of the pepsin derived from it (Green, M. L. & Llewellin, J. M.) 105–115

Succinic anhydride, effects of 3-carboxypropionylation with, and other chemical modifications on the immunochromical and optical properties of human plasma low-density lipoproteins and their apoproteins (Gotto, A. M., Levy, R. I., Lux, S. E., Birnbaum, M. E. & Fredrickson, D. S.) 369–382

N-Succinimidyl 3-(4-hydroxyphenyl)propionate, see 3-(4-Hydroxyphenyl)propionic acid N-hydroxysuccinimide ester

Sulphate, inorganic, inhibition by, of the activity of adenosine triphosphate sulphurylase from Saccharomyces cerevisiae (Hawes, C. S. & Nicholas, D. J. D.) 541–550

Sulphate, role of adenosine diphosphate sulphurylase in the metabolism of, in spinach leaves (Burnell, J. N. & Anderson, J. W.) 417–428

Sulphhydryl, see Thiol
INDEX OF SUBJECTS

Tamm–Horsfall glycoprotein, rabbit, evidence that O-acetylation is responsible for the resistance of the sialic acid residues of, towards acid and enzymic hydrolysis (Neuberger, A. & Ratcliffe, W. A.) 623–628

Temperature, environmental, effects of, on the properties of myofibrillar adenosine triphosphatase from white skeletal muscle of various species of fish (Johnston, I. A., Frearson, N. & Goldspink, G.) 735–738

Temperature, lack of sensitivity to, of rat liver pyruvate kinase (Flory, W. & Koeppe, R. E.) 391–394

Testis, ram, separation and properties of multiple forms of Na-acetylated hexosaminidase from, and epididymis (Bullock, S. & Winchester, B.) 593–599

Tetrahydrofolate dehydrogenase, purification and properties of, from cultured mammalian cells (Gaudelue, J., Marshall, L. & Hillcoat, B. L.) 349–356

Tetranitromethane, effects of, and other protein-modifying reagents on the activity of an adenosine triphosphatase isoenzyme from potato tuber (Valenzuela, M. A., del Campo, G., Marin, E. & Traverso-Cori, A.) 755–763

Thioacetamide, changes in the nuclear proteins from different classes of nuclei from liver of rats treated with (Gonzalez-Mujica, F. & Mathias, A. P.) 441–455

Thiol group, reaction of the fluorescent probes 7-chloro-4-nitrobenzo-2-oxa-1,3-diazole and 7-(2-hydroxyethyl-thio)-4-nitrobenzo-2-oxa-1,3-diazole with, of the active-site cysteine residue of papain (Allen, G. & Lowe, G.) 679–686

Thiol groups, reaction of p-hydroxymercuribenzoate with, of ox heart mitochondrial acetyl-coenzyme A synthetase (Londesborough, J. C., Yuan, S. L. & Webster, L. T., Jr.) 23–36

Thiols, use of 2,2'-dipyridyl disulphide as a convenient active-site titrant for papain even in the presence of (Brooklehurst, K. & Little, G.) 67–80

Thiopyrid-2-one, use of covalent chromatography on the mixed disulphide of glutathione and, bound to Sepharose for the preparation of fully active papain from dried papaya latex (Brooklehurst, K., Carlsson, J., Kierstan, M. P. J., & Cook, E. M.) 573–584

L-Threonine dehydrogenase, purification of, from Pseudomonas oxalactica by affinity chromatography on immobilized L-lysine nitroimadyl—adenine dinucleotide (Lowe, C. R., Harvey, M. J., Craven, D. B., Kerfoot, M. A., Hollows, M. E. & Dean, P. D. G.) 507–513

Thyrotrophin, human, labelling of, and other proteins to high specific radioactivities by conjugation with [(22)I]-iodinated 3-(4-hydroxyphenyl)propionic acid N-hydroxy-succinimide ester (Bolton, A. E. & Hunter, W. M.) 529–538

Thyroxine, different effects of, on the activities of 3,3'-glutamylhydroxamate synthetase and L-glutamine—hydroxylamine glutamate transferase in rat tissues in vitro (Hertzfeld, A. & Estes, N. A., III) 59–66

3-p-Tolyltriazene, use of 1-alkyl derivatives of, for the synthesis of alkyl esters of bilirubin (Hutchinson, D. W., Johnson, B. & Knell, A. J.) 493–498

Tomato (Lycopersicon esculentum), identification of galactosylsine linkages in extensin from the cell walls of (Lampert, D. T. A., Katona, L. & Roering, S.) 125–132

Transferrin, apo-, human, comparison of the sedimentation and gel-filtration behaviour of, and its copper and iron complexes (Charlwold, P. A.) 749–754

Tropomyosin, subunits and biological activity of polymorphic forms of, from muscle of various species (Cummins, P. & Perry, S. V.) 765–777

Trypsin, negatively co-operative binding of benzoyl-L-arginine p-nitroanilide to (Dixon, H. B. F. & Tipton, K. F.) 837–842

Trypsin, ox, characteristics of the interaction of human α1-macroglobulin with, and other proteinases, and a hypothesis concerning its molecular mechanism (Barrett, A. J. & Starkey, P. M.) 709–724

Tryptophan, loss of, associated with photo-polymerization and yellowing of proteins exposed to light of wavelengths greater than 300nm (Dilley, K. J.) 821–826

Tryptophan pyrrolyase, mechanism of inhibition by allopurinol of the activity of, in rat liver in vivo and in vitro (Badawy, A. A.-B. & Evans, M.) 585–591


Tungstate, lack of effect of, on the activity of reduced nicotinamide—adenine dinucleotide-linked nitrite reductase from Azobacter chroococcum A.T.C.C. 4412 (Vega, J. M., Guerrero, M. G., Leadbetter, E. & Losada, M.) 701–708

Tyrosine residues, evidence for the participation of, in the activity of an adenosine triphosphatase isoenzyme from potato tuber (Valenzuela, M. A., del Campo, G., Marin, E. & Traverso-Cori, A.) 755–763

Uridine diphosphate apiose, characterization and properties of, biosynthesized from uridine diphosphate glucuronic acid by duckweed uridine diphosphate glucuronate cyclase (Kindel, P. K. & Watson, R. K.) 227–241

Uridine diphosphate galactose, formation of β-(1→4)-d-galactan from, by a particulate enzyme preparation from mung-bean hypocotyls (Panayotatos, N. & Villemaz, C. L.) 263–271

Uridine diphosphate glucose dehydrogenases, differences in the properties of, from pig epithelial-plate cartilage and ox cornea and their possible relevance to differences in the glycosaminoglycan contents of the two tissues (Baldini, C., Brovelli, A., De Luca, G., Galligani, L. & Castellani, A. A.) 243–249

Uridine diphosphate glucuronate cyclase, duckweed, characterization and properties of uridine diphosphate apiose biosynthesized from uridine diphosphate glucuronic acid by (Kindel, P. K. & Watson, R. K.) 227–241

Uridine diphosphate glucuronic acid, characterization and properties of uridine diphosphate apiose biosynthesized from, by duckweed uridine diphosphate glucuronate cyclase (Kindel, P. K. & Watson, R. K.) 227–241

Uridine diphosphate xylose, differences in the inhibitory effects of, on uridine diphosphate glucose dehydrogenases from pig epithelial-plate cartilage and ox cornea and their possible relevance to differences in the glycosaminoglycan contents of the two tissues (Baldini, C., Brovelli, A., De Luca, G., Galligani, L. & Castellani, A. A.) 243–249

Uridine, incorporation of, into ribonucleic acid by rat and hamster epididymal spermatozoa (MacLaughlin, J. & Terner, C.) 635–639

Vol. 133
Uridine kinase, modulation of the activity of, in rat liver by the administration of 5-azacytidine (Veselý, J. & Čihák, A.) 609-613
Uridine triphosphate, increased incorporation of, into ribonucleic acid in nuclei of spleen of mice infected with Friend leukaemia virus (Babcock, D. F. & Rich, M. A.) 797-804
Uroporphyrinogen I synthetase, formation of polypyrroles from porphobilinogen and amines by, from Rhodopseudomonas spheroides N.C.I.B. 8253 (Davies, R. C. & Neuberger, A.) 471-492

Virus, leukaemia, see Leukaemia virus

Wall, cell, see Cell wall
Wool keratin, amino acid sequence of protein SCMKB-IIIA3 from the high-sulphur fraction of (Swart, L. S. & Haylett, T.) 641-653

Xanthine oxidase, evidence for lack of involvement of, in the regulation of the activity of tryptophan pyrrolase in rat liver (Badawy, A. A.-B. & Evans, M.) 585-591

Xenopus laevis, assay, purification, properties and mechanism of action of γ-glutamylcysteine synthetase from liver of (Davis, J. S., Balinsky, J. B., Harington, J. S. & Shepherd, J. B.) 667-678

Yeast, baker's, comparison of the properties of adenosine diphosphate sulphurylase from spinach leaves and (Burnell, J. N. & Anderson, J. W.) 417-428
Yeast, baker's (Saccharomyces cerevisiae), purification and properties of adenosine triphosphate sulphurylase from (Hawes, C. S. & Nicholas, D. J. D.) 541-550
Zinc acetate, complexes of bilirubin with, in aprotic solvents (Hutchinson, D. W., Johnson, B. & Knell, A. J.) 399-400