THE BIOCHEMICAL SOCIETY

OFFICERS AND COMMITTEE, 1980–81

Chairman of the Committee  
S. V. Perry, F.R.S.  
Treasurer  
D. F. Elliott  
Assistant Treasurer  
B. Spencer  
General Secretary  
D. Robinson  
Publications Secretary  
G. B. Ansell  
Meetings Secretary  
H. F. Bradford

Committee  
J. R. Bronk  
E. G. Brown  
P. H. Clarke, F.R.S.  
J. T. Dingle†  
P. F. Fottrell  
M. I. Gurr  
J. L. Harwood  
F. W. Hemming  
J. A. Lucy  
R. D. Marshall  
J. Mowbray*†  
I. H. M. Muir, F.R.S.

J. H. Ottaway  
R. N. Parham  
C. F. Phelps

The Biochemical Society exists to advance the science of biochemistry through meetings and publications. Several 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)].

NOTICE FOR SUBSCRIBERS

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 1981 eight volumes, each volume being made up of three issues, will be published.

Biochemical Society Transactions. This is a separate publication (see below). Volume 9 will be published in 1981, in six parts.

Subscription Rates to the Biochemical Journal. For non-members of the Biochemical Society the subscription rates for 1981 are shown below.

Subscribers to the Biochemical Journal can subscribe to Biochemical Society Transactions on a joint subscription, saving £15.00 (U.K. and Overseas) or $25.00 (N. America). The methods of despatch of both publications are shown below.

Terms are cash with order or against proforma invoice. Orders and subscriptions should be sent to the

Biochemical Society Book Depot, P.O. Box 32, Commerce Way, Colchester CO2 8HP, Essex, or through your normal agent.

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K. &amp; Overseas</td>
<td>£245.00</td>
<td>£1.00</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>$555.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>$25.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>Japan only</td>
<td>£280.00</td>
<td>£1.00</td>
</tr>
<tr>
<td>Japan only</td>
<td>$36.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>Airfreight to U.S.A., Canada and Mexico</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IMPORTANT NOTICE. All subscribers, other than in North America, are asked to remit in £ sterling or U.S. $ equivalent at the rate of exchange prevailing at the date of payment.

Second-class postage paid at New York, NY, U.S.A.

(ii)
## INDEX OF AUTHORS

<table>
<thead>
<tr>
<th>Authors</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atassi, M. Z.</td>
<td>673, 681</td>
</tr>
<tr>
<td>Bamforth, C. W.</td>
<td>863</td>
</tr>
<tr>
<td>Bert, J. L.</td>
<td>761</td>
</tr>
<tr>
<td>Bock, P. E.</td>
<td>769</td>
</tr>
<tr>
<td>Brocklehurst, K.</td>
<td>707</td>
</tr>
<tr>
<td>Brockway, B. E.</td>
<td>873</td>
</tr>
<tr>
<td>Brown, J. R.</td>
<td>855</td>
</tr>
<tr>
<td>Choo, K. H.</td>
<td>777</td>
</tr>
<tr>
<td>Clarke, P. H.</td>
<td>811</td>
</tr>
<tr>
<td>Coggins, J. R.</td>
<td>799</td>
</tr>
<tr>
<td>Cotton, R. G. H.</td>
<td>777</td>
</tr>
<tr>
<td>De Martinez, S. S. G.</td>
<td>785</td>
</tr>
<tr>
<td>Dingle, J. T.</td>
<td>835</td>
</tr>
<tr>
<td>Dobrovolskii, A. B.</td>
<td>851</td>
</tr>
<tr>
<td>Farooqui, A. A.</td>
<td>827</td>
</tr>
<tr>
<td>Forster, S. J.</td>
<td>873</td>
</tr>
<tr>
<td>Fowler, K.</td>
<td>777</td>
</tr>
<tr>
<td>Fox, K. R.</td>
<td>729</td>
</tr>
<tr>
<td>Freedman, R. B.</td>
<td>873</td>
</tr>
<tr>
<td>Gauvreau, D.</td>
<td>729</td>
</tr>
<tr>
<td>Gersten, D. M.</td>
<td>869</td>
</tr>
<tr>
<td>Goebels, Y.</td>
<td>699</td>
</tr>
<tr>
<td>Goodwin, D. C.</td>
<td>729</td>
</tr>
<tr>
<td>Gore, C. H.</td>
<td>799</td>
</tr>
<tr>
<td>Green, C.</td>
<td>785</td>
</tr>
<tr>
<td>Gusev, N. B.</td>
<td>851</td>
</tr>
<tr>
<td>Hardman, N.</td>
<td>859</td>
</tr>
<tr>
<td>Harwood, J. L.</td>
<td>791</td>
</tr>
<tr>
<td>Hembry, R. M.</td>
<td>835</td>
</tr>
<tr>
<td>Holbrook, J. J.</td>
<td>769</td>
</tr>
<tr>
<td>Hollaway, M. R.</td>
<td>811</td>
</tr>
<tr>
<td>Hornebeck, W.</td>
<td>835</td>
</tr>
<tr>
<td>Hunter, J. B.</td>
<td>799</td>
</tr>
<tr>
<td>Jennings, I. G.</td>
<td>777</td>
</tr>
<tr>
<td>Jordan, B. R.</td>
<td>791</td>
</tr>
<tr>
<td>Kazim, A. L.</td>
<td>673</td>
</tr>
<tr>
<td>Khirabadi, B. S.</td>
<td>869</td>
</tr>
<tr>
<td>Knight, C. G.</td>
<td>835</td>
</tr>
<tr>
<td>Kukulskia-Langlands, B. M.</td>
<td>799</td>
</tr>
<tr>
<td>Kurian, P.</td>
<td>869</td>
</tr>
<tr>
<td>Lapière, C. M.</td>
<td>699</td>
</tr>
<tr>
<td>Ledley, R. S.</td>
<td>869</td>
</tr>
<tr>
<td>Lehmann, H.</td>
<td>681</td>
</tr>
<tr>
<td>Luscombe, M.</td>
<td>769</td>
</tr>
<tr>
<td>MacDougall, A. J.</td>
<td>855</td>
</tr>
<tr>
<td>Mahany, T.</td>
<td>869</td>
</tr>
<tr>
<td>Malthouse, J. P. G.</td>
<td>707</td>
</tr>
<tr>
<td>Marshall, S. E.</td>
<td>769</td>
</tr>
<tr>
<td>Mathieson, J. M.</td>
<td>761</td>
</tr>
<tr>
<td>Matthews, I. T. W.</td>
<td>835</td>
</tr>
<tr>
<td>Nusgens, B. V.</td>
<td>699</td>
</tr>
<tr>
<td>Pasanen, M.</td>
<td>719</td>
</tr>
<tr>
<td>Pearce, R. H.</td>
<td>761</td>
</tr>
<tr>
<td>Pepper, D. S.</td>
<td>769</td>
</tr>
<tr>
<td>Peters, T., Jr.</td>
<td>867</td>
</tr>
<tr>
<td>Pietras, R. J.</td>
<td>743</td>
</tr>
<tr>
<td>Plumbridge, T. W.</td>
<td>855</td>
</tr>
<tr>
<td>Putnam, F. W.</td>
<td>867</td>
</tr>
<tr>
<td>Ramey, E. R.</td>
<td>869</td>
</tr>
<tr>
<td>Ramwell, P. W.</td>
<td>869</td>
</tr>
<tr>
<td>Reed, R. G.</td>
<td>867</td>
</tr>
<tr>
<td>Risnik, V. V.</td>
<td>851</td>
</tr>
<tr>
<td>Salminen, K.</td>
<td>719</td>
</tr>
<tr>
<td>Salonen, E.</td>
<td>719</td>
</tr>
<tr>
<td>Severin, S. E.</td>
<td>851</td>
</tr>
<tr>
<td>Shinkai, H.</td>
<td>699</td>
</tr>
<tr>
<td>Srivastava, P. N.</td>
<td>827</td>
</tr>
<tr>
<td>Stenman, U.-H.</td>
<td>719</td>
</tr>
<tr>
<td>Sutcliffe, R. G.</td>
<td>799</td>
</tr>
<tr>
<td>Szego, C. M.</td>
<td>743</td>
</tr>
<tr>
<td>Ticho, T.</td>
<td>811</td>
</tr>
<tr>
<td>Twining, S. S.</td>
<td>681</td>
</tr>
<tr>
<td>Vuento, M.</td>
<td>719</td>
</tr>
<tr>
<td>Walker, D. A.</td>
<td>845</td>
</tr>
<tr>
<td>Waring, M. J.</td>
<td>729</td>
</tr>
<tr>
<td>Warner, S. J.</td>
<td>761</td>
</tr>
<tr>
<td>Wharton, S. A.</td>
<td>785</td>
</tr>
<tr>
<td>Whittaker, P. A.</td>
<td>859</td>
</tr>
<tr>
<td>Woodrow, I. E.</td>
<td>845</td>
</tr>
</tbody>
</table>

## PHOTOCOPYING

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made in the U.S.A. for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per-copy fee through the Copyright Clearance Center Inc. (P.O. Box 765, Schenectady, New York 12301, U.S.A.) for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale.
NOTICE FOR CONTRIBUTORS

The Biochemical Journal places emphasis on the prompt publication of both full-length papers (on average about 6 months after receipt) and rapid papers (on average 10–12 weeks after receipt).

For detailed instructions on the preparation of papers contributors (who need not be members of the Biochemical Society) should refer to Policy of the Journal and Instructions to Authors [Biochem. J. (1978) 169, 1–27], and the notice below.

Papers submitted for publication should be addressed to the Editorial Manager, Biochemical Journal, 7 Warwick Court, London WC1R 5DP.

Contributors should note that the Biochemical Journal makes no manuscript handling charges, no page charges and no charges for plates. Reprints are available at modest cost at about the same time as publication, and, if an author is a member of the Biochemical Society, 25 reprints are provided free of charge.

The Biochemical Journal accepts papers on all aspects of Biochemistry. Alternate issues of the journal are devoted to Molecular Aspects and Cellular Aspects. For the convenience of readers, papers within each issue are assigned to sections on the Contents pages. Authors should indicate whether their papers are Molecular or Cellular and designate the section in Contents in which they would like their paper to appear. Section headings, for both Molecular Aspects and Cellular Aspects, are reviewed from time to time; the present headings are as follows:

Molecular Aspects (Physical, Structural and Chemical Properties of Biochemical Systems, including Sequencing Information)  
  Peptide and Protein Structure  
  Enzymes and Enzyme Kinetics  
  Metabolites  
  Nucleotides, Nucleic Acids and Nucleoproteins  
  Lipids  
  Membranes  
  Carbohydrates and Complex Carbohydrates  
  Physical Biochemistry  

Cellular Aspects (Biochemical Properties of Metabolic, Subcellular and Cellular Systems)  
  Protein Biosynthesis/Molecular Genetics  
  Protein Turnover  
  Metabolism, Regulation and Control Processes  
  Cell Surfaces and Receptors  
  Developmental Biochemistry  
  Membranes, Transport, Bioenergetics and Photosynthesis

IMPORTANT NOTICE FOR AUTHORS

Limitation of paper lengths. As a measure to meet the effects of continuously rising production costs of the Journal the Editorial Board has decided to introduce a policy of limitation of length of published papers. In future papers should not normally exceed eight printed pages in the Journal, including Figures and Tables. (Eight pages represent approximately 5000 words without Figures or Tables; as a guide, the number of double-spaced A4 typescript sheets for text and references, with the addition of one sheet for each Figure, Table or Scheme with its legend, should not exceed 24 if the eight printed pages maximum is to be met.) Cooperation of authors in this will be expected, and there is an advantage in that shorter papers are usually published with the least delay. Authors should also note that a single paper consisting justifiably of ten printed pages, for example, will normally be considered more favourably than two papers each of six pages dealing with the same material.

Copies of submitted papers. To expedite handling and refereeing procedures in a new system to be operated by the Journal authors are now requested to provide three copies of papers at submission.

New features. In 1981 the inclusion of Reviews in the Journal will commence; these will usually be invited, although prospective authors of Reviews are welcome to contact the Deputy Chairman concerned with Reviews (Professor J. A. Lucy) at the Editorial Office.

‘Biochemical Journal Letters’ is an additional feature now being implemented for the Journal. ‘BJ Letters’ are intended to provide an opportunity to discuss, criticize or expand particular points made in published work, or to present a hypothesis. They must be concisely written and each will normally occupy less than one printed page of the Journal. Letters will be treated as items for rapid publication. They will be accepted only if they are thought to represent soundly reasoned opinions. Letters are not intended to provide a vehicle for discussion of more general matters which might more appropriately be sent to the Biochemical Society Bulletin. If a letter is polemical in nature, a reply may be solicited from other interested parties before its publication. Such replies will be assessed for publication with the original letter if this is appropriate. Letters should be sent to the Editorial Office.

(vi)
## Index of Authors

<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
<th>Author</th>
<th>Pages</th>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bert, J. L.</td>
<td>761–768</td>
<td>Dingle, J. T.</td>
<td>835–843</td>
<td>Ham, J.</td>
<td>239–246</td>
</tr>
<tr>
<td>Clarke, P. H.</td>
<td>811–826</td>
<td>Ghanbari, H. A.</td>
<td>627–635</td>
<td>Khan, M. I.</td>
<td>395–400</td>
</tr>
<tr>
<td>Clonis, Y. D.</td>
<td>247–251</td>
<td></td>
<td></td>
<td>Khirabadi, B. S.</td>
<td>869–872</td>
</tr>
<tr>
<td>Coggins, J. R.</td>
<td>799–809</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cole, A. L.</td>
<td>83–94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index of authors</td>
<td>Pages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kiener, P. A.</td>
<td>111–116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kilpatrick, D. C.</td>
<td>273–275</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kimata, K.</td>
<td>193–207</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinsella, J. E.</td>
<td>269–272</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knight, C. G</td>
<td>835–843</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kukulska-Langlands, B. M.</td>
<td>799–809</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurian, P.</td>
<td>869–872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurihara, T.</td>
<td>71–82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lamy, M. T.</td>
<td>285–288</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lang, G.</td>
<td>449–455</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lapière, C. M.</td>
<td>699–706</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ledley, R. S.</td>
<td>869–872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lehmann, H.</td>
<td>681–697</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leloir, L. F.</td>
<td>257–260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifely, M. R.</td>
<td>305–318</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Littler, W. A.</td>
<td>571–580</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowe, C. R.</td>
<td>247–251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowry, P. J.</td>
<td>125–132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumsden, J.</td>
<td>239–246</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luscombe, M.</td>
<td>769–776</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MacDougall, A. J.</td>
<td>855–858</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahany, T.</td>
<td>869–872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mains, I.</td>
<td>457–465</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malthouse, J. P. G.</td>
<td>265–267, 707–718</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marshall, S. E.</td>
<td>769–776</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathew, M. K.</td>
<td>395–400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathieson, J. M.</td>
<td>761–768</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matthews, I. T. W.</td>
<td>835–843</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mayes, E. L. V.</td>
<td>661–664</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCarl, R. L.</td>
<td>627–635</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCarthy, A. D.</td>
<td>605–611</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLean, C.</td>
<td>125–132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melloes, G.</td>
<td>209–219</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mennella, M. R. F.</td>
<td>289–297</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milenkovic, A. G.</td>
<td>21–28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minkel, D. T.</td>
<td>475–485</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moir, A. J. G.</td>
<td>547–554</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moran, D. M.</td>
<td>233–237</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morpeth, F. F.</td>
<td>619–626</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myer, J.</td>
<td>665–668</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nakazawa, K.</td>
<td>193–207</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neujahr, H. Y.</td>
<td>37–43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nishizawa, Y.</td>
<td>71–82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nusgens, B. V.</td>
<td>699–706</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O’Donnell, M. J.</td>
<td>449–455</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oike, Y.</td>
<td>193–207</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oliver, R. P.</td>
<td>277–280</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peters, T., Jr.</td>
<td>281–283, 867–868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petriella, C.</td>
<td>257–260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pietras, R. J.</td>
<td>743–760</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plumbridge, T. W.</td>
<td>855–858</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poerio, E.</td>
<td>341–348</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Porter, R. R.</td>
<td>173–182</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poulsen, K.</td>
<td>475–485</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power, D. M.</td>
<td>457–465</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price, K. M.</td>
<td>571–580</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Putnam, F. W.</td>
<td>867–868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qadri, F.</td>
<td>53–62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ragan, C. I.</td>
<td>429–436</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramey, E. R.</td>
<td>869–872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramwell, P. W.</td>
<td>869–872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reed, R. G.</td>
<td>281–283, 867–868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risnik, V. V.</td>
<td>851–854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risteli, J.</td>
<td>517–522</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roy, P. D.</td>
<td>233–237</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sainsbury, G. M.</td>
<td>333–339</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salminen, K.</td>
<td>719–727</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salonen, E.</td>
<td>719–727</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saneto, R. P.</td>
<td>1–10, 11–20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schrevel, J.</td>
<td>543–546</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schuppan, D.</td>
<td>517–522</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schwartz, W. N.</td>
<td>487–497</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seitz, U.</td>
<td>165–171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severin, S. E.</td>
<td>851–854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaw, C. F., III</td>
<td>475–485</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheltawy, A.</td>
<td>523–532</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shepherd, M. G.</td>
<td>83–94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shetty, J. K.</td>
<td>269–272</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shinkai, H.</td>
<td>699–706</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shinomura, T.</td>
<td>193–207</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sjöberg, I.</td>
<td>103–110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smith, B. E.</td>
<td>449–455</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solomon, S.</td>
<td>253–256</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spartanian, K.</td>
<td>449–455</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Srivastava, P. N.</td>
<td>827–834</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Srivastava, S. K.</td>
<td>11–20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staneloni, R. J.</td>
<td>257–260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanley, C. J.</td>
<td>147–154</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanworth, D. R.</td>
<td>233–237</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stenman, U.-H.</td>
<td>719–727</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stevenson, R.</td>
<td>233–237</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surarit, R.</td>
<td>401–410</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surolia, A.</td>
<td>395–400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sutcliffe, R. G.</td>
<td>799–809</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suzuki, S.</td>
<td>193–207</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Svasti, J.</td>
<td>401–410</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Szego, C. M.</td>
<td>743–760</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takahashi, Y.</td>
<td>71–82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarelli, E.</td>
<td>305–318</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thomas, E. W.</td>
<td>457–465</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thomas, P.</td>
<td>669–672</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thomson, A. J.</td>
<td>319–331, 411–420</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ticho, T.</td>
<td>811–826</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timpl, R.</td>
<td>517–522</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tipton, K. F.</td>
<td>605–611</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolmasky, M. E.</td>
<td>257–260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tong, C. C.</td>
<td>83–94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsoutsoulis, C. J.</td>
<td>221–227</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tully, M. J.</td>
<td>111–116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turrens, J. F.</td>
<td>421–427</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twining, S. S.</td>
<td>681–697</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyler, M.</td>
<td>509–516</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ugalde, R. A.</td>
<td>257–260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van der Rest, M.</td>
<td>253–256</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van Kempen, G. M. J.</td>
<td>133–138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vuento, M.</td>
<td>719–727</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vyas, J. P.</td>
<td>645–648</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waley, S. G.</td>
<td>111–116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walker, D. A.</td>
<td>845–849</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walker, J. M.</td>
<td>605–611</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waring, M. J.</td>
<td>729–742</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warner, S. J.</td>
<td>761–768</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watts, D. C.</td>
<td>63–70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weatherill, P. J.</td>
<td>155–163</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wharton, S. A.</td>
<td>785–790</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, G. F.</td>
<td>467–473</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whittaker, P. A.</td>
<td>859–862</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wielgus, S.</td>
<td>475–485</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wiman, B.</td>
<td>229–232</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wolf, H. U.</td>
<td>117–124</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodrow, I. E.</td>
<td>845–849</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zecher, R.</td>
<td>117–124</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Index of Subjects

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetamide</td>
<td>811–826</td>
</tr>
<tr>
<td>chloroacetone inhibition of aliphatic amidase</td>
<td></td>
</tr>
<tr>
<td><em>N</em>-Acetylgalactosamine, <em>Bacillus licheniformis</em> teichuronic acid</td>
<td>305–318</td>
</tr>
<tr>
<td>$\beta$-N-Acetylhexosaminidase</td>
<td></td>
</tr>
<tr>
<td>isolation from seminal plasma</td>
<td>827–834</td>
</tr>
<tr>
<td>role in fertilization</td>
<td></td>
</tr>
<tr>
<td>Acrosomal hydrolases</td>
<td>827–834</td>
</tr>
<tr>
<td>role in fertilization</td>
<td></td>
</tr>
<tr>
<td>Acylamide amidohydrolase, see Aliphatic amidase</td>
<td></td>
</tr>
<tr>
<td>Acyl-(\alpha)-chymotrypsins</td>
<td></td>
</tr>
<tr>
<td>thermodynamics of deacylation</td>
<td>653–655</td>
</tr>
<tr>
<td>Adenosine triphosphatase</td>
<td></td>
</tr>
<tr>
<td>Ca(^{2+}) or Mg(^{2+})-stimulated cell surface</td>
<td>45–51</td>
</tr>
<tr>
<td>Adenosine triphosphatases</td>
<td></td>
</tr>
<tr>
<td>myosin</td>
<td>627–635</td>
</tr>
<tr>
<td>Adipocytes</td>
<td></td>
</tr>
<tr>
<td>stereospecific distribution of triacylglycerol palmitate</td>
<td>637–643</td>
</tr>
<tr>
<td>triacylglycerol biosynthesis</td>
<td></td>
</tr>
<tr>
<td>Adrenal gland</td>
<td></td>
</tr>
<tr>
<td>effect of (\gamma)-melanotropin</td>
<td>125–132</td>
</tr>
<tr>
<td>phospholipids</td>
<td>523–532</td>
</tr>
<tr>
<td>Adrenal medulla</td>
<td></td>
</tr>
<tr>
<td>chromaffin-granule lysophosphatidylcholine</td>
<td>523–532</td>
</tr>
<tr>
<td>Adrenaline</td>
<td></td>
</tr>
<tr>
<td>troponin-I phosphorylation</td>
<td>547–554</td>
</tr>
<tr>
<td>Affinity chromatography</td>
<td></td>
</tr>
<tr>
<td>DNA immobilization</td>
<td>855–858</td>
</tr>
<tr>
<td>6-phosphogluconate dehydrogenase</td>
<td>53–62</td>
</tr>
<tr>
<td>triazine dyes–Sepharose</td>
<td>53–62</td>
</tr>
<tr>
<td>Agglutinin</td>
<td></td>
</tr>
<tr>
<td>castor bean</td>
<td>395–400</td>
</tr>
<tr>
<td>fluorescence-polarization studies of binding to 4-methyllumbelliferyl $\beta$-D-galactoside</td>
<td>395–400</td>
</tr>
<tr>
<td>Aging</td>
<td></td>
</tr>
<tr>
<td>myosin in cultured heart cells</td>
<td>627–635</td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td>serum, see Serum albumin</td>
<td></td>
</tr>
<tr>
<td>sex-related differences in blood proteins</td>
<td>869–872</td>
</tr>
<tr>
<td>Aldehyde reductase</td>
<td></td>
</tr>
<tr>
<td>interaction with NADP</td>
<td>619–626</td>
</tr>
<tr>
<td>physical properties and active sites</td>
<td>619–626</td>
</tr>
<tr>
<td>purification from pig kidney</td>
<td>619–626</td>
</tr>
<tr>
<td>Alfalfa (<em>Medicago sativa</em>)</td>
<td></td>
</tr>
<tr>
<td>glycolipid in roots</td>
<td>257–260</td>
</tr>
<tr>
<td>Aliphatic amidase</td>
<td></td>
</tr>
<tr>
<td>active-site-directed inhibition by chloroacetone</td>
<td>811–826</td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em></td>
<td>811–826</td>
</tr>
<tr>
<td>Alkaloid</td>
<td></td>
</tr>
<tr>
<td>indolizidine, see Indolizidine alkaloid</td>
<td></td>
</tr>
<tr>
<td>Alkan-2-yl sulphate esters</td>
<td></td>
</tr>
<tr>
<td>alkylsulphohydrolase CS2</td>
<td>467–473</td>
</tr>
<tr>
<td>stereospecific synthesis</td>
<td>467–473</td>
</tr>
<tr>
<td>Alkyl 2-pyridyl disulphides</td>
<td></td>
</tr>
<tr>
<td>proteinase active-centre thiol groups</td>
<td>707–718</td>
</tr>
<tr>
<td>Alkylsulphohydrolase CS2</td>
<td></td>
</tr>
<tr>
<td>alkan-2-yl sulphate esters</td>
<td>467–473</td>
</tr>
<tr>
<td><em>Comamonas terrigena</em></td>
<td>467–473</td>
</tr>
<tr>
<td>detergent and surfactant biodegradation</td>
<td>467–473</td>
</tr>
<tr>
<td>hydrophobic interactions</td>
<td></td>
</tr>
<tr>
<td>Allosteric enzymes</td>
<td></td>
</tr>
<tr>
<td>glutamate dehydrogenase kinetics</td>
<td>299–304</td>
</tr>
<tr>
<td>Amidase</td>
<td></td>
</tr>
<tr>
<td>aliphatic, see Aliphatic amidase</td>
<td></td>
</tr>
<tr>
<td>Amino acid compositions</td>
<td></td>
</tr>
<tr>
<td>protein evolution and phylogenetic ‘trees’</td>
<td>349–354</td>
</tr>
<tr>
<td>Amino acid residues</td>
<td></td>
</tr>
<tr>
<td>influence on myoglobin antigenic sites</td>
<td>673–680, 681–697</td>
</tr>
<tr>
<td>Amino acid sequence residues</td>
<td>400–403 of bovine serum albumin</td>
</tr>
<tr>
<td>Amino acid sequences</td>
<td></td>
</tr>
<tr>
<td>protein evolution and phylogenetic ‘trees’</td>
<td>349–354</td>
</tr>
<tr>
<td>4-(N-Aminoethyl 2’-pyridyl disulphide)-7-nitrobenzo-2-oxa-1,3-diazole</td>
<td></td>
</tr>
<tr>
<td>papain and ficin active centres</td>
<td>707–718</td>
</tr>
<tr>
<td>A-(\delta)-Aminolaevulinate dehydratase</td>
<td></td>
</tr>
<tr>
<td>purification and properties, from <em>Neurospora</em></td>
<td>29–36</td>
</tr>
<tr>
<td>regulation of biosynthesis in <em>Neurospora</em></td>
<td></td>
</tr>
<tr>
<td>Antibiotics</td>
<td></td>
</tr>
<tr>
<td>quinoxaline, see Quinoxaline antibiotics</td>
<td></td>
</tr>
<tr>
<td>Antibodies</td>
<td></td>
</tr>
<tr>
<td>anti-dinitrophenyl, see Anti-dinitrophenyl antibody</td>
<td></td>
</tr>
<tr>
<td>monoclonal, see Monoclonal antibodies</td>
<td></td>
</tr>
<tr>
<td>myoglobins of various species</td>
<td>681–697</td>
</tr>
<tr>
<td>Anti-dinitrophenyl antibody</td>
<td></td>
</tr>
<tr>
<td>binding to cathepsin D and dinitrophenyl-pepsatin</td>
<td>835–843</td>
</tr>
<tr>
<td>Antigen</td>
<td></td>
</tr>
<tr>
<td>human pregnancy-associated plasma protein A</td>
<td>799–809</td>
</tr>
<tr>
<td>Antigenic sites</td>
<td></td>
</tr>
<tr>
<td>haemoglobin (\alpha)-chain</td>
<td>261–264</td>
</tr>
<tr>
<td>myoglobin</td>
<td>673–680, 681–697</td>
</tr>
<tr>
<td>neighbouring amino acid residues</td>
<td>673–680, 681–697</td>
</tr>
</tbody>
</table>
Antigenic sites—contd.
proteins 673–680, 681–697
synthetic peptides and protein structure 261–264
\( \alpha_2 \)-Antiplasmin
affinity-chromatographic purification 229–232
interaction with plasmin(ogen) 229–232
Antiserum
type-IV collagens 517–522
Antiserum
arabinogalactan-protein of Gladiolus style mucilage 437–447
Wistar-rat liver UDP-glucuronyltransferase 155–163
Arabinogalactan-protein
antiserum and antigenic determinants 437–447
Gladiolus style 437–447
L-Arabinose
antigenic determinant of Gladiolus style arabinogalactan-protein 437–447
Aromatic compounds
degradation in yeast (Trichosporon) 37–43
Arsenite
fatty acid synthesis and phosphatidylcholine 791–797
Arylsulphatase
3,4-dihydroxybenzoic acid O-sulphate esters 133–138
rat liver high-speed supernatant 133–138
Asparagine residues
bovine serum albumin 867–868
Avena sativa, see Oat

Bacillus cereus 569/H/9/1
isolation and production of \( \beta \)-lactamases 111–116
\( \beta \)-lactamase II with selectively decreased cephalosporinase activity 111–116
Bacillus licheniformis A.T.C.C. 9945
cell-wall teichuronic acid 305–318
Bacillus stearothermophilus
NADH-(dichlorophenol-indophenol) oxidoreductase 457–465
6-phosphogluconate dehydrogenase 53–62
Bacteriophage \( \lambda \)
DNA with EcoRI restriction endonuclease 581–592, 593–604
Basement membranes
type-IV collagen chains 517–522
Bilirubins
II, IXa and XIIIa 657–659
4-Bis-(2-chloroethyl)amino-L-phenylalanine
DNA immobilization 855–858
Blood proteins
sex-related differences in rats and humans 869–872
Brain
2’:3’-cyclic nucleotide 3’-phosphodiesterase 71–82
glutamate dehydrogenase 605–611
tubulin and 10-nm neurofilaments 543–546
Bronchial carcinoma
calctonin 239–246
Butyryrivibrio sp.
phospholipids and other complex lipids 555–560, 561–569
Butyroyl esters
Butyryrivibrio phospholipids 555–560, 561–569
Cadmium
metallothioneins 475–485
Calcitonin
bronchial carcinoma cells 239–246
high-molecular-weight immunoreactive forms 239–246
high-pressure liquid chromatography 239–246
Carcinoma
bronchial, see Bronchial carcinoma
Cardiac muscle
tropinin-I phosphorylation 547–554
Cartilage
proteoglycan structure 193–207
Castor bean (Ricinus communis)
agglutinin binding to 4-methylumbelliferyl \( \beta \)-d-galactoside 395–400
Catalase
ethanol peroxidation 613–618
Catecholamines
exchange diffusion in liposomes 523–532
Catechols
O-sulphation 133–138
Cathepsin B
human liver 487–497
Cathepsin D
binding and inhibition by pepstatin derivatives 835–843
human liver 487–497
Cathepsin H
binding to \( \alpha_2 \)-macroglobulin 487–497
purification from human liver 487–497
simultaneous isolation of cathepsins B and D 487–497
Cationic detergents
photoinduced bilirubin isomerization 657–659
Cell walls
Bacillus licheniformis teichuronic acid 305–318
Cells
  heart, see Heart cells
  mammary-adenocarcinoma 13762 ascites, see Mammary-adenocarcinoma 13762 ascites cells
  neuroblastoma N18, see Neuroblastoma N18 cells
  spleen, see Spleen cells
Cellulase
  commercial preparations contain exo-β-1,3-glucanase 863–866
Cellulases
  purification from fungus Thermoascus aurantiacus 83–94
Cephalosporinase
  Bacillus cereus 569/H/9 β-lactamase II 111–116
Cerulenin
  fatty acid synthesis and phosphatidylcholine 791–797
Cetyltrimethylammonium bromide
  photoinduced bilirubin isomerization 657–659
Chick embryo
  cartilage proteoglycan structure 193–207
  protein disulphide-isomerase and procollagen biosynthesis 873–876
Chloroacetone
  active-site-directed inhibitor 811–826
  inhibition of Ps. aeruginosa aliphatic amidase 811–826
Chloromethyl ketones
  enzyme inhibition 811–826
Chlorophyll biosynthesis
  NADPH–protochlorophyllide oxidoreductase 277–280
Chloroplasts
  light-activation of sedoheptulose bisphosphatase 845–849
  6-Chloropurine ribotide
    inhibition of IMP dehydrogenase 533–541
Cholecalciferol
  human plasma vitamin D binding protein 401–410
  Cholesta-4,6-dien-3-one
    interaction with phosphatidylcholine in liposomes 785–790
Cholesterol
  interaction with phospholipids in liposomes and membranes 785–790
Chondroitin sulphate
  cartilage proteoglycan 193–207
Chondroitinase
  cartilage proteoglycan structure 193–207
Chromaffin granules
  lysophosphatidylcholine 523–532
  phospholipid hydrolysis post mortem 523–532
Chromatin
  parsley DNA-dependent RNA polymerase I 165–171
  trout testis nuclear high-mobility-group proteins 661–664
Chromatography
  affinity, see Affinity chromatography
  covalent, see Covalent chromatography
  high-performance liquid, see High-performance liquid chromatography
Chromophores
  DNA binding of quinoxaline antibiotics 727–742
  α-Chymotrypsin
    acyl-, see Acyl-α-chymotrypsin
  Cibacron Blue
    affinity chromatography of NADH dehydrogenase 457–465
    dye–Sepharose affinity chromatography 53–62
Circular dichroism
  cytochrome c oxidase 319–331
  magnetization curves of haemoproteins 411–420
Citraconic anhydride
  separation of proteins from nucleoprotein complexes 269–272
Collagen
  basement membrane 517–522
  different type-IV chains 517–522
  peptidases and biosynthesis 699–706
  precursor, see Procollagen
  radioimmunoassay 517–522
  reverse-phase high-performance liquid chromatography of CNBr peptides 253–256
Collagen fibres
  skin meshworks 761–768
  volume exclusion of dextrans 761–768
Comamonas terrigena
  stereospecific CS2 secondary alkylsulphohydrolyase 467–473
Complement
  fixation by pepsin-treated immunoglobulin M 183–191
  Complement cofactor β1H role in hydrolysis by C3b inactivator 173–182
  Complement components C3 and C3b hydrolysis by C3b inactivator 173–182
  Complement control protein C3b inactivator (C3bINA) cofactors β1H and C4b-binding protein 173–182
  hydrolysis of complement components C3b and C4b 173–182
  purification from human plasma 173–182
  Complement-component-C4b-binding protein role in hydrolysis by C3b inactivator 173–182
  Complex I bovine heart mitochondrial NADH dehydrogenase 429–436
Compound 48/80
  histamine release from mast cells 233–237
Concanavalin A

Deoxyribonucleic acid nucleotidyltransferase, see Terminal deoxyribonucleotidyltransferase

Convicilin

distinction from legumin and vicilin 509–516
purification from pea seeds 509–516

Copper

Copper protein

near-i.r. magnetic and natural c.d. of cytochrome oxidase 319–331

Corticotropin

γ-melanotropin and precursor 125–132

Covalent chromatography

resolution of thiol–protein disulphide oxidoreductases 373–388, 389–393

Cyclic AMP-dependent protein kinase

troponin-I phosphorylation 547–554

2′:3′-Cyclic nucleotide 3′-phosphodiesterase

affinity chromatography on 8-(6-aminohexyl)-amino-2′-AMP–Sepharose 71–82

purification from brain 71–82

solubilization by proteolytic enzymes 71–82

Cytochrome c

magnetic-c.d. spectroscopy 411–420

Cytochrome c oxidase

magnetic-c.d. spectroscopy 411–420

near-i.r. magnetic and natural c.d. 319–331

Cytoplasm

erythrocyte phosphoglycollate phosphatase 117–124

Cytoskeleton

neuro-, see Neurocytoskeleton

Dansyl (5-dimethylaminonaphthalene-1-sulphonyl) groups

fluorescence polarization 769–776

Deoxyribonuclease

see EcoRI restriction endonuclease

Deoxyribonucleic acid

alkylation with 4-bis-(2-chloroethyl)amino-L-phenylalanine 855–858
bacteriophage λ 581–592, 593–604
binding of quinoline analogues of echinomycin 729–742
EcoRI restriction endonuclease 581–592, 593–604
extending enzyme from wheat germ 139–145
imobilization for affinity chromatography 855–858
im mobilization for drug-binding studies 855–858
interaction with protein 581–592, 593–604
methylation in Physarum nucleus 859–862
restriction endonucleases HpaII and Hhal 859–862
structural studies with restriction enzymes 581–592

Deoxyribonuclease acid nucleotidyltransferase, see Terminal deoxyribonucleotidyltransferase

Dermatan sulphate

acid lability of glycosidic bonds 355–363

Detergents

biodegradation by alkylsulphohydrolases 467–473
cationic, see Cationic detergents

Development

foetal and adult cardiac myosins 571–580
myosin in neonatal and adult rat heart 627–635

Dextran

exclusion volumes from collagen meshworks 761–768

Diabetic acid esters in Butyrivibrio phospholipids 555–560, 561–569

1,2-Diacylglycerol kinase

endogenously generated substrate 669–672
human erythrocyte membrane 669–672

3,4-Dihydroxybenzoic acid

O-sulphation by rat liver sulphotransferase 133–138

3,4-Dihydroxybenzoic acid O-sulphate esters

aryl sulphatase activities 133–138
chemical synthesis and characterization 133–138

Dinitrophenyl-pepatins

binding and inhibition of cathepsin D 835–843
preparation 835–843
simultaneous binding of cathepsin and anti-dinitrophenyl antibody 835–843

2,2′-Dipyridyl disulphide

papain and ficin active centres 707–718

Dolichyl diphenosphate oligosaccharide glucose-containing, in alfalfa 257–260

Duchenne muscular dystrophy

red-cell cytoplasmic enzymes 63–70

Echinomycin

DNA binding of quinoline analogues 729–742
EcoRI restriction endonuclease

binding to bacteriophage-λ DNA 593–604
kinetics with bacteriophage-λ DNA 581–592
recognition sites on DNA 581–592, 593–604

Ecto-enzymes

Ca2+- or Mg2+-stimulated ATPase 45–51

Elastase

solubilization of brain cyclic nucleotide phosphodiesterase 71–82

Electronic spectra

cytochrome c oxidase 319–331
haemoproteins 411–420
Embryo

chick, see Chick embryo

Endo-β-D-galactosidase, see Keratanase
Index of subjects

Endonuclease
restriction, see Restriction endonuclease

Endopeptidase
intestinal microvillar membrane 645–648
neutral 645–648
procollagen type III N-terminal 699–706

Entropy/enthalpy compensation
deacetylation of acyl-α-chymotrypsins 653–655

Enzymes
entropy/enthalpy compensation 653–655
isotope effect on kinetics 613–618
restriction, see Restriction endonucleases
triazine-dye inhibition of nucleotide binding 247–251

Erythrocytes
membrane 1,2-diacylglycerol kinase 669–672
phosphoglycollate phosphatase 117–124
see also Red blood cells

Escherichia coli
B pseudominate inhibition of isoleucyl-tRNA synthetase 209–219

Escherichia coli K 12
native and mutant IMP dehydrogenase 533–541

Ethanol
peroxidation by catalase 613–618
synthesis of specific 2H- and 3H-labelled compounds 613–618
E.x.a.f.s., see X-ray absorption spectroscopy
Exo-β-1,3-glucanase
Trichoderma reesei 863–866

Eye
lens glutathione S-transferases 11–20

Fat-cells, see Adipocytes
Fatty acid synthetase
particulate fraction from germinating pea 791–797
phosphatidylcholine and cerulенин 791–797

Fatty acids
adipocyte triacylglycerol biosynthesis 637–643
binding to (normal and variant) human serum albumin 281–283
elongation in germinating pea 791–797

Fertilization
role of β-N-acetylhexosaminidase 827–834

Fibrinolysis
α 2-antiplasmin purification 229–232

Fibroblasts
heparan sulphate 103–110
procollagen type III N-terminal endopeptidase 699–706

Fibronectin
gelatin (collagen) binding 719–727
human plasma 719–727
immunochemical characterization 719–727

lectin (haemagglutinating) activity 719–727

Ficin
active-centre thiol groups 707–718

Ficol/Triosil gradients
fractionation of red cells into age classes 63–70

Flavoprotein
Bacillus stearothermophilus NADH dehydrogenase 457–465

Flight muscle
waterbug Z-disc proteins 333–339

Foetus
cardiac myosin light chain 571–580

Fucose
glycosylation inhibition and membrane glycoprotein turnover 21–28

Fungus
thermophilic, see Thermophilic fungus
Trichoderma reesei exo-β-1,3-glucanase 863–866

Galactolipids
Butyrivibrio 555–560, 561–569

D-Galactose
antigenic determinant of Gladiolus style arabino-galactan-protein 437–447

Gladiolus
antiserum to style-mucilage arabino-galactan-protein 437–447

Glucosamine
glycosylation inhibition and membrane glycoprotein degradation 21–28

Glucosamines
fibroblast heparan sulphate 103–110

Glucose 6-phosphate dehydrogenase
red blood cells 63–70

β-Glucosidase
purification from fungus Thermoascus aurantiacus 83–94

Glucuronic acid
Bacillus licheniformis teichuronic acid 305–318

Glutamate dehydrogenase
negative co-operativity 299–304

Glutathione
structure and allosteric properties 605–611
thionicotinamide analogues of NAD(P) + 299–304

Vol. 191
Glutamine
bovine serum albumin 867–868
Glutathione peroxidase
activity in GSH S-transferases 1–10, 11–20
Glutathione reductase
red blood cells 63–70
Glutathione S-transferases
anionic and cationic forms 1–10, 11–20
bovine lens 11–20
glutathione peroxidase activity 1–10, 11–20
human liver 1–10
Glutathione–insulin transhydrogenase
resolution by covalent chromatography from
protein disulphide-isomerase 373–388, 389–393
Glycolipid
dolichyl diphosphate oligosaccharide in alfalfa
257–260
Glycoprotein
potato fruit lectin 273–275
Glycoproteins
glycosylation and degradation in membranes
21–28
Glycosaminoglycans, see Proteoglycans
Glycosidic bonds
acid lability in glycosaminoglycans 355–363
Glycosylation
inhibition and membrane glycoprotein
degradation 21–28
Glyoxylate
oxidation and reduction by potato lactate
dehydrogenase 341–348
Group-specific component, see Vitamin D binding
protein
Haemagglutination
fibronectin 719–727
Haemin
interaction with human serum albumin 95–102
Haemoglobin
antigenic structure of α-chain 261–264
Haemoprotein
near-i.r. magnetic and natural c.d. of cytochrome oxidase 319–331
Haemoproteins
magnetization curves by magnetic c.d. 411–420
Heart
mitochondrial NADH dehydrogenase 429–436
myosin in aging and development 627–635
myosin light-chain subunits 571–580
2-oxo acid dehydrogenase multienzyme complexes 147–154.
superoxide production by mitochondrial NADH
dehydrogenase 421–427
Heart cells
myosin in culture 627–635

Heparan sulphate
acid lability of glycosidic bonds 355–363
lung fibroblasts 103–110
oligosaccharides 103–110
Heparin
acid lability of glycosidic bonds 355–363
complex-formation with platelet factor 4 769–776
High-mobility-group proteins
trout testis nuclei 661–664
High-performance liquid chromatography
collagen CNBr peptides 253–256
Histamine
release from mast cells by peptides 233–237
Histidine
proteinase active centres 707–718
16α-Hydroxylation, see Oestrone 3-sulphate 16α-
hydroxylase
Iduronic acid
acid lability of glycosidic bonds in glycosaminoglycans 355–363
fibroblast heparan sulphate 103–110
Imidazole groups
proteinase active centres 707–718
Immunoglobulin G
anti-(UDP-glucuronyltransferase) antiserum
155–163
Immunoglobulin M
Fab fragments 183–191
pepsin treatment and biological activity 183–191
pepsin treatment and complement fixation 183–191
Indolizidine alkaloid
swainsone and α-mannosidase inhibition
649–651
Injury
localization of active proteinases 835–843
Inosine 5′-monophosphate dehydrogenase
active-site modification 533–541
6-chloropurine ribotide 533–541
IMP-binding site 533–541
native and guaB mutants of Escherichia coli
533–541
thiol groups 533–541
Insects
flight-muscle Z-disc proteins 333–339
Intestine
microvillar-membrane neutral endopeptidase
645–648
5-Iodonaphth-1-yl azide
mitochondrial NADH dehydrogenase subunits 429–436
Iron
c.d. of cytochrome c oxidase 319–331
regulation of biosynthesis of Neurospora δ-
aminoaevulinate dehydratase 29–36

1980
Iron–molybdenum protein, see Molybdenum–iron protein
Isoleucyl-tRNA synthetase pseudomonate inhibition in E. coli 209–219
Isotope effect catalase peroxidation of [2H]ethanol 613–618
Keratan sulphate cartilage proteoglycan linkage region 193–207
Keratanase cartilage proteoglycan structure 93–207
Kidney zinc in metallothionein 475–485
Kidney cortex aldehyde reductase 619–626
Klebsiella pneumoniae nitrogenase Mo–Fe protein 449–455
β-Lactamase II cephalosporinase activity 111–116
variants in Bacillus cereus 569/H/9 mutants 111–116
Lactate dehydrogenase affinity-chromatographic purification from potato 341–348
essential lysine residues 365–371
inhibition by triazine dyes 247–251
modification by pyridoxal 5′-phosphate 365–371
potato isoenzymes 341–348
testicular (C4) 365–371
Lactate dehydrogenases potato and vertebrate 341–348
Laevulinate regulation of biosynthesis of Neurospora δ-amino-
laevulinate dehydratase 29–36
Laminarinase, see Exo-β-1,3-glucanase
Lectin castor bean 395–400
potato fruit pericarp 273–275
Lens glutathione S-transferases 11–20
Lethocerus, see Waterbug
Ligands conformation of human plasma vitamin D binding component 401–410
Light activation of chloroplast sedoheptulose bisphosphate 845–849
isomerization of bilirubin 657–659
Lipid bound oligosaccharides in alfalfa 257–260
Lipid peroxidation lack of involvement of superoxides in spermatozoa 289–297
metal-ion-catalysed in spermatozoa 289–297
Lipids Butyri vibrio 555–560, 561–569
Lipoprotein mitochondrial NADH dehydrogenase complex 429–436
Liposomes catecholamine exchange diffusion 523–532
phosphatidylcholine, steroids and sterols 785–790
phospholipid and cholesterol organization 785–790
Liptropin γ-melanotropin and precursor 125–132
Liver cadmium in metallothionein 475–485
glutamate dehydrogenase 605–611
glutathione S-transferases 1–10
immunochemical comparison of UDP-glucuronyl-
transferases 155–163
microsomal oestrone 3-sulphate 16α-hydroxylase 221–227
plasma-membrane oestrogen receptors 743–760
supernatant arylsulphatase and sulphotransferase 133–138
Lysine residues e-amino-group citraconylation in nucleoproteins 269–272
essential, in mouse C4 lactate dehydrogenase 365–371
Lysophosphatidylcholine chromaffin granules 523–532
liposomes and membrane permeability 523–532
Lysosomal enzymes role in fertilization 827–834
Lysosomes α-mannosidase inhibition by swainsonine 649–651
α2-Macroglobulin binding to cathepsin H 487–497
comparison with pregnancy-associated plasma protein A 799–809
Macromolecules exclusion from collagenous meshworks 761–768
Magnesium ions DNA–EcoRI-endonuclease binding 593–604
Magnetic properties haemoproteins 411–420
Mammary-adenocarcinoma 13762 ascites cells Ca2+– or Mg2+-stimulated ATPase 45–51
α-Mannosidase inhibition by swainsonine 649–651
lysosomal 649–651
Mast cells histamine release by peptides 233–237
Medicago sativa, see Alfalfa
γ-Melanotropin effect on adrenal gland 125–132

Vol. 191
γ-Melanotropin—contd.
purification from human pituitary 125–132

Membranes
basement, see Basement membranes
Ca²⁺- or Mg²⁺-stimulated ATPase 45–51
chromaffin-granule phospholipids 523–532
erthrocyte 1,2-diacylglycerol kinase 669–672
glycosylation inhibition and glycoprotein degrada-
tion 21–28
heart mitochondrial pyruvate dehydrogenase
complex 147–154
intestinal-microvillar neutral endopeptidase
645–648
mitochondrial, see Mitochondrial membranes
phospholipid and cholesterol organization 785–790
plasma, see Plasma membranes

Metalloproteins
zinc, cadmium and copper metallothioneins
475–485
Metallothioneins
cadmium, zinc and copper 475–485
oxygenation during isolation 475–485
Methaemalbumin
kinetics of formation 95–102
5-Methylcytosine
nucleic DNA of Physarum 859–862
4-Methylumbelliferyl β-D-galactopyranoside
binding to castor-bean agglutinin 395–400
fluorescence polarization 395–400
Microsomal fraction
assay for oestrone 3-sulphate 16α-hydroxylase
221–227
UDP-glucuronyltransferase 155–163

Microtubules
neurofilament proteins 543–546
10-nm-filament fraction 543–546

Microvilli
intestinal membrane neutral endopeptidase
645–648

Mitochondria
heart pyruvate dehydrogenase complex 147–154
NADH dehydrogenase subunits 429–436
superoxide production by NADH dehydrogenase
421–427

Mitochondrial membranes
NADH dehydrogenase-supported superoxide
production 421–427

Molybdenum
coupling to ³⁵S in xanthine oxidase 265–267
e.x.a.f.s. of xanthine oxidase 499–508
Mo(V)–¹⁷O coupling in phosphate inhibitor com-
plex of sulphite oxidase 285–288
Very Rapid Mo(V) e.p.r. signal 265–267

Molybdenum–iron protein
Klebsiella pneumoniae nitrogenase 449–455

Monoclonal antibody
myeloma–spleen-cell fusion 665–668, 777–783
phenylalanine hydroxylase 665–668, 777–783
cis,cis-Muconate cyclase
purification from Trichosporon cutaneum 37–43

Muscle
cardiac, see Cardiac muscle
flight, see Flight muscle
skeletal, see Skeletal muscle

Muscular dystrophy
Duchenne, see Duchenne muscular dystrophy

Myelin
2':3'-cyclic nucleotide 3'-phosphodiesterase
71–82

Myeloma
monoclonal antibody from spleen-cell fusion
665–668, 777–783

Myocardium
myosin light-chain subunits 571–580

Myoglobin
amino acid substitutions 673–680, 681–697
antigenic sites 673–680, 681–697
magnetic-c.d. spectroscopy 411–420
species-independent antibody response 681–697

Myosin
adult and neonatal rat heart 627–635
age of cultured heart cells 627–635
atrial and ventricular light chains 571–580
Ca- and K⁺(EDTA)-ATPases 627–635
foetal heart light chain 571–580
light and heavy chains 627–635

NADH dehydrogenase
heart mitochondria 429–436
lipoprotein complex (Complex I) 429–436
purification from Bacillus steaerothermophilus
457–465
subunits and 5-iodonaphth-1-yl azide 429–436
superoxide-anion production 421–427

NADH–(dichlorophenol-indophenol)
oxidoreductase
purification from Bacillus steaerothermophilus
457–465

NADH–ubiquinone oxidoreductase, see NADH
dehydrogenase

Neuroblastoma N18 cells
glycosylation and glycoprotein degradation 21–28

Neurocytoskeleton
tubulin and neurofilaments 543–546

Neurofilaments
tubulin and other proteins 543–546
Neurospora crassa
purification and properties of δ-aminolaevulinate
dehydratase 29–36
Index of subjects

regulation of biosynthesis of α-aminolaevulinate dehydratase 29–36
Nicotinamide–adenine dinucleotide (phosphate) coenzymes of glutamate dehydrogenase 299–304
Nicotinamide–adenine dinucleotide phosphate interactions with aldehyde reductase 619–626
Nitrogenase
Fe–S clusters 449–455
Klebsiella pneumoniae Mo–Fe protein 449–455
p-Nitrophenyl phosphatase possible identity with erythrocyte phosphoglycollate phosphatase 117–124
Nucleoprotein separation of proteins by citraconylation 269–272
Nucleoside triphosphates
RNA polymerase from parsley 165–171
Nucleotides coenzymes of glutamate dehydrogenase 299–304
IMP dehydrogenase 533–541
triazine-dye inhibition of enzymes binding 247–251
Nucleus
DNA methylation in Physarum 859–862
trout testis high-mobility-group proteins 661–664

Oat (Avena sativa) leaves
protoclorophyllide reductase peptides 277–280
Oestadiol-17β
binding by liver plasma membranes 743–760
Oestrogen receptors
hepatocyte plasma membranes 743–760
Oestrogens
binding by liver plasma membranes 743–760
liver microsomal 16α-hydroxylation 221–227
Oestrone 3-sulphate 16α-hydroxylase
assay in liver microsomal fraction 221–227
pigmented and non-pigmented guinea pigs 221–227
Oligosaccharide
dolichyl diphasphate, see Dolichyl diphasphate oligosaccharide
Oligosaccharides
lung fibroblast heparan sulphate 103–110
Ovum
β-N-acetylhexosaminidase and fertilization 827–834
2-Oxo acid dehydrogenase multienzyme complexes
new purification method from ox heart 147–154
2-Oxoglutarate dehydrogenase
multienzyme-complex purification from heart 147–154
Oxygen toxicity
spermatozoa 289–297

Palmitate
binding to normal and variant human serum albumin 281–283
Butyrobacterio lipids 555–560, 561–569
stereospecific distribution in adipocyte triacylglycerols 637–643
Palmitate elongase
fatty acid synthesis on germinating pea 791–797
phosphatidylcholine and arsenite 791–797
Papain
active-centre thiol groups 707–718
Parsley (Petroselinum crispum)
chromatin-bound DNA-dependent RNA polymerase I 165–171
Pea (Pisum sativum)
fatty acid synthesis in germination 791–797
seed protein convicilin 509–516
Penicillinase, see β-Lactamase
Pepsin
biological activity of immunoglobulin M 183–191
Pepstatin
dinitrophenyl-, see Dinitrophenyl-pepstatin
N-Pepstatin-N′-dinitrophenyl-1,6-diaminohexane
binding of cathepsin D and anti-dinitrophenyl antibody 835–843
Peptidase
endo-, see Endopeptidase
Peptide
N-terminal of type III procollagen 699–706
Peptides
corticotropin-derived and histamine release 233–237
histamine release from mast cells 233–237
lysine- and arginine-containing and histamine release 233–237
NADPH-protochlorophyllide oxidoreductase 277–280
protein antigenic structure 261–264
reverse-phase high-performance liquid chromatography 253–256
Pericarp
potato fruit lectin 273–275
Peroxidation
ethanol by catalase 613–618
Petroselinum crispum, see Parsley
Phage, see Bacteriophage
Phenylalanine hydroxylase
monoclonal antibody 665–668, 777–783
N-Phenylmaleimide
peptides of protoclorophyllide reductase 277–280
Phosphatase
p-nitrophenyl, see p-Nitrophenyl phosphatase
Phosphate
complexing and inhibition of sulphite oxidase 285–288

Vol. 191
Phosphatidate
erythrocyte-membrane 1,2-diacylglycerol kinase 609–672
Phosphatidylcholine
fatty acid synthesis in germinating pea 791–797
6-Phosphogluconate dehydrogenase
affinity-chromatographic purification from Bacillus 53–62
red blood cells 63–70
Phosphoglycollate phosphatase
possible identity with p-nitrophenyl phosphatase 117–124
purification from human erythrocytes 117–124
thiol-group-specific inhibitors 117–124
Phospholipase C
endogenous substrate for 1,2-diacylglycerol kinase 669–672
Phospholipid bilayer
mitochondrial NADH dehydrogenase subunits 429–436
Phospholipids
bilayers with steroids in liposomes and membranes 785–790
Butyrivibrio 555–560, 561–569
hydrolysis post mortem in adrenals 523–532
Phosphorylase kinase
skeletal-muscle troponin T 851–854
troponin-I phosphorylation 547–554
Phylogenetic ‘trees’
protein evolution, amino acid sequences and compositions 349–354
Physarum polycephalum
methylation of nuclear DNA 859–862
Pisum sativum, see Pea
Pituitary gland
purification of y-melanotropin 125–132
Plasma
complement control protein C3b inactivator 173–182
fibronectin 719–727
human pregnancy-associated protein A 799–809
sex differences in protein patterns 869–872
vitamin D binding protein 401–410
Plasma membranes
oestrogen receptors 743–760
Plasmin
troleolyis of fibronectin 719–727
Plasmin inhibitor, see a2-Antiplasmin
Plasminogen
affinity-chromatographic purification of a2-antiplasmin 229–232
Platelet factor 4
complex-formation with heparin 769–776
fluorescence polarization 769–776
Polysaccharides
interaction with platelet factor 4 769–776
Polysulphonated aromatic chromophores
binding by nucleotide-dependent enzymes 247–251
Potato (Solanum tuberosum)
lactate dehydrogenase 341–348
Potato fruit
lectin from pericarp 273–275
Pregnancy-associated plasma protein A (PAPP-A)
comparison with a2-macroglobulin 799–809
purification by affinity chromatography 799–809
Proalbumin Christchurch
ligand-binding properties 281–283
Procion dyes
affinity labels for nucleotide-dependent enzymes 247–251
Procion Red HE-3B
dye–Sepharose affinity chromatography 53–62
Procollagen
biosynthesis and protein disulphide-isomerase 873–876
Procollagen type III N-terminal endopeptidase
tendon fibroblast culture 699–706
Proline
insect Z-disc proteins 333–339
n-Propyl 2-pyridyl disulphide
papain and ficin active centres 707–718
Protein
molybdenum–iron, see Molybdenum–iron protein
pregnancy-associated plasma, see Pregnancy-associated plasma protein A
storage, see Storage protein
Protein disulphide-isomerase
chick embryo 873–876
correlation with procollagen biosynthesis 873–876
covalent-chromatographic purification, and properties 373–388, 389–393
resolution from glutathione–insulin transhydrogenase 373–388, 389–393
Protein evolution
amino acid sequences and compositions 349–354
phylogenetic ‘trees’ 349–354
Protein kinase
cyclic AMP-dependent, see Cyclic AMP-dependent protein kinase
Protein synthesis
glycosylation inhibitors and membrane glycoproteins 21–28
Proteinase
complement control protein C3b inactivator 173–182
see also Endopeptidase
1980
<table>
<thead>
<tr>
<th>Index of subjects</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proteinase inhibitor</strong>&lt;br&gt;(\alpha)-antiplasmin purification</td>
<td>229–232</td>
</tr>
<tr>
<td><strong>Proteinases</strong>&lt;br&gt;active-centre thiol groups</td>
<td>707–718</td>
</tr>
<tr>
<td>localization at tissue-injury sites</td>
<td>835–843</td>
</tr>
<tr>
<td><strong>Proteins</strong>&lt;br&gt;antigenic sites</td>
<td>673–680, 681–697</td>
</tr>
<tr>
<td>blood, see Blood proteins</td>
<td></td>
</tr>
<tr>
<td>citraconylation of lysine e-amino group</td>
<td>269–272</td>
</tr>
<tr>
<td>determination and synthesis of antigenic sites</td>
<td>261–264</td>
</tr>
<tr>
<td>high-mobility-group, see High-mobility-group proteins</td>
<td></td>
</tr>
<tr>
<td>metallo-, see Metalloproteins</td>
<td></td>
</tr>
<tr>
<td>neighbouring amino acids to antigenic sites</td>
<td>673–680, 681–697</td>
</tr>
<tr>
<td>proline-rich, in insect Z-discs</td>
<td>333–339</td>
</tr>
<tr>
<td>separation from nucleoproteins with citraconic anhydride</td>
<td>269–272</td>
</tr>
<tr>
<td>synthesis of overlapping peptides</td>
<td>261–264</td>
</tr>
<tr>
<td><strong>Proteoglycan</strong>&lt;br&gt;antigenic determinants</td>
<td>437–447</td>
</tr>
<tr>
<td>chick-embryo cartilage</td>
<td>193–207</td>
</tr>
<tr>
<td>chondroitin sulphate and keratan sulphate</td>
<td>193–207</td>
</tr>
<tr>
<td>core protein</td>
<td>193–207</td>
</tr>
<tr>
<td><em>Gladiolus</em> style arabinogalactan-protein</td>
<td>437–447</td>
</tr>
<tr>
<td><strong>Proteoglycans</strong>&lt;br&gt;acid lability of glycosidic bonds of L-iduronic acid residues</td>
<td>355–363</td>
</tr>
<tr>
<td>fibroblast heparan sulphate oligosaccharides</td>
<td>103–110</td>
</tr>
<tr>
<td><strong>Proteolysis</strong>&lt;br&gt;commercial glutamate dehydrogenase&lt;br&gt;preparations</td>
<td>605–611</td>
</tr>
<tr>
<td><strong>Protochlorophyllide oxidoreductase</strong>&lt;br&gt;NADPH-dependent</td>
<td>277–280</td>
</tr>
<tr>
<td>peptides</td>
<td>277–280</td>
</tr>
<tr>
<td><strong>Protocollagen hydroxylase</strong>&lt;br&gt;correlation with protein disulphide-isomerase</td>
<td>873–876</td>
</tr>
<tr>
<td><strong>Protoporphyrin</strong>&lt;br&gt;regulation of biosynthesis of <em>Neurospora</em> (\delta)-aminolaevulinate dehydratase</td>
<td>29–36</td>
</tr>
<tr>
<td><strong>Pseudomonas aeruginosa</strong>&lt;br&gt;chloroacetone inhibition of aliphatic amidase</td>
<td>811–826</td>
</tr>
<tr>
<td><strong>Pseudomonac acid A</strong>&lt;br&gt;binding to isoleucyl-tRNA synthetase</td>
<td>209–219</td>
</tr>
<tr>
<td>inhibition of <em>E. coli</em> isoleucyl-tRNA synthetase</td>
<td>209–219</td>
</tr>
<tr>
<td>selective toxicity in mammals and bacteria</td>
<td>209–219</td>
</tr>
<tr>
<td><strong>Pyridoxal 5’-phosphate</strong>&lt;br&gt;modification of mouse testicular lactate dehydrogenase ((C_2))</td>
<td>365–371</td>
</tr>
<tr>
<td><strong>Pyruvate</strong>&lt;br&gt;reduction by potato lactate dehydrogenase</td>
<td>341–348</td>
</tr>
<tr>
<td><strong>Pyruvate dehydrogenase</strong>&lt;br&gt;multienzyme-complex purification from heart</td>
<td>147–154</td>
</tr>
<tr>
<td><strong>Quinoline</strong>&lt;br&gt;DNA binding of echinomycin analogues</td>
<td>727–742</td>
</tr>
<tr>
<td><strong>Quinoline antibiotics</strong>&lt;br&gt;quinoline substitution and DNA binding</td>
<td>727–742</td>
</tr>
<tr>
<td><strong>Rats</strong>&lt;br&gt;inter-strain differences in liver UDP-glucuronyltransferase</td>
<td>155–163</td>
</tr>
<tr>
<td><strong>Receptors</strong>&lt;br&gt;oestrogen, see Oestrogen receptors</td>
<td></td>
</tr>
<tr>
<td><strong>Red blood cells</strong>&lt;br&gt;cytoplasmic enzymes</td>
<td>63–70</td>
</tr>
<tr>
<td>fractionation into age classes</td>
<td>63–70</td>
</tr>
<tr>
<td><strong>Restriction endonuclease</strong>&lt;br&gt;<em>EcoRI</em>, see <em>EcoRI</em> restriction endonuclease</td>
<td></td>
</tr>
<tr>
<td><strong>Restriction endonucleases</strong>&lt;br&gt;<em>Physarum</em> nuclear DNA</td>
<td>859–862</td>
</tr>
<tr>
<td><strong>Reticulocytes</strong>&lt;br&gt;cytoplasmic enzymes</td>
<td>63–70</td>
</tr>
<tr>
<td><strong>Ribonucleic acid polymerase I</strong>&lt;br&gt;chromatin-bound, DNA-dependent</td>
<td>165–171</td>
</tr>
<tr>
<td>purification from parsley</td>
<td>165–171</td>
</tr>
<tr>
<td><strong>Ricinus communis</strong>, see <em>Castor bean</em></td>
<td></td>
</tr>
<tr>
<td><strong>Rumen</strong>&lt;br&gt;<em>Butyrivibrio</em> lipids</td>
<td>555–560, 561–569</td>
</tr>
<tr>
<td><strong>Saccharomyces carlsbergensis</strong>&lt;br&gt;proteins and nucleoproteins</td>
<td>269–272</td>
</tr>
<tr>
<td><strong>Salmonella</strong>&lt;br&gt;agglutination by peptic-treated immunoglobulin M</td>
<td>183–191</td>
</tr>
<tr>
<td><strong>Sedoheptulose bisphosphatase</strong>&lt;br&gt;light activation in wheat chloroplasts</td>
<td>845–849</td>
</tr>
<tr>
<td><strong>Seeds</strong>&lt;br&gt;pea protein convicilin</td>
<td>509–516</td>
</tr>
<tr>
<td><strong>Semen</strong>&lt;br&gt;JJ-N-acetylhexosaminidase</td>
<td>827–834</td>
</tr>
<tr>
<td>superoxide dismutase and lipid peroxidation</td>
<td>289–297</td>
</tr>
<tr>
<td><strong>Serine residue phosphorylation in troponin T</strong></td>
<td>851–854</td>
</tr>
<tr>
<td><strong>Serum</strong>&lt;br&gt;human pregnancy-associated protein A</td>
<td>799–809</td>
</tr>
<tr>
<td><strong>Sex differences in protein patterns</strong></td>
<td>869–872</td>
</tr>
</tbody>
</table>

Vol. 191
Index of subjects

Serum albumin
  binding properties of human variant 281–283
  bovine residues 400–403, 867–868
  interaction with monomeric haemin 95–102
Sex
  blood protein patterns 869–872
Skeletal muscle
  troponin-T phosphorylation 851–854
Skin
  collagenous-fibre meshworks 761–768
Slime mould, see Physarum polycephalum
Solanum tuberosum, see Potato
Spectroscopy
  X-ray absorption, see X-ray absorption spectroscopy
Spermatozoa
  superoxide dismutase 289–297
Spinal cord
  10-nm neurofilaments 543–546
Spleen cells
  monoclonal antibody from myeloma-cell fusion 665–668, 777–783
Steroids
  interaction with phospholipids in liposomes and membranes 785–790
Sterols
  interaction with phospholipids in liposomes and membranes 785–790
Storage protein
  pea seed convicilin 509–516
Stroma
  light-activation of sedoheptulose bisphosphatase 845–849
Submitochondrial particles
  superoxide production by NADH dehydrogenase 421–427
Sugars
  lectin binding 395–400
Sulhatase
  alkyl, see Alkylsulphohydrolase
O-Sulphation
  3,4-dihydroxybenzoic acid 133–138
Sulphite oxidase
  Mo(V) e.p.r. spectra 285–288
  phosphate inhibitor complex 285–288
Sulphotransferase
  3,4-dihydroxybenzoic acid 133–138
  rat liver high-speed supernatant 133–138
Sulphur
  molybdenum-linked in xanthine oxidase 265–267
  xanthine oxidase 499–508
Superoxide anion
  bovine heart mitochondrial NADH dehydrogenase 421–427
  distribution and properties in spermatozoa 289–297
Teichuronic acid
  Bacillus licheniformis A.T.C.C. 9945 walls 305–318
  13C n.m.r. studies 305–318
  tetrasaccharide repeating unit 305–318
Tendon
  fibroblast procollagen peptidase 699–706
Terminal deoxyribonucleotidyltranferase
  isolation from wheat germ 139–145
Testis
  lactate dehydrogenase (C4) 365–371
  nuclear high-mobility-group proteins in trout 661–664
Thermoascus aurantiacus
  cellulases 83–94
Thermodynamics
  deacylation of acyl-α-chymotrypsins 653–655
Thiopropyl-Sepharose 6B
  covalent-chromatographic separation of thiol–disulphide oxidoreductases 373–388, 389–393
Thiol groups
  active centres of papain and ficin 707–718
  IMP dehydrogenase active site 533–541
  thioldisulphide interchange enzymes catalysing 373–388, 389–393
  resolution 373–388, 389–393
  thioldisulphide oxidoreductases resolution of protein disulphide-isomerase and glutathione–insulin transhydrogenase 389–393
Thioneins, see Metallothioneins
Thionicotinamide nucleotides
  glutamate dehydrogenase 299–304
Thiopropyl–Sepharose 6B
  covalent-chromatographic separation of thiol–disulphide oxidoreductases 373–388, 389–393
Triacylglycerols
  biosynthesis in rat adipocytes 637–643
  stereospecific distribution of palmitate 637–643

lack of involvement in lipid peroxidation in spermatozoa 289–297
Superoxides
  lack of involvement in lipid peroxidation in spermatozoa 289–297
Surfactants
  biodegradation by alkylsulphohydrolases 467–473
Swainsona canescens
  swainsonine inhibition of α-mannosidase 649–651
Swainsonine
  indolizidine alkaloid from plant Swainsona canescens 649–651
  inhibition of lysosomal α-mannosidase 649–651

1980
Index of subjects

Triazine dyes
affinity chromatography of 6-phosphogluconate dehydrogenase 53–62
affinity labels for nucleotide-dependent enzymes 247–251

Trichoderma reesei
exo-β-1,3-glucanase 863–866
growth on barley β-glucan 863–866

Trichosporon cutaneum (yeast)
degradation of aromatic compounds 37–43
purification of cis,cis-muconate cyclase 37–43

Triticum aestivum, see Wheat

Troponin I
adrenaline effect on phosphorylation 547–554
phosphorylase b kinase 547–554
phosphorylated serine and threonine residues 547–554

Troponin T
phosphorylase kinase 851–854
skeletal muscle 851–854

Trout
high-mobility-group proteins in testis nuclei 661–664

Tubulin
neurofilaments 543–546

Tumour
bronchial-carcinoma calcitonin 239–246
mammary, see Mammary-adenocarcinoma 13762
ascites cells

Tunicamycin
glycosylation inhibition and membrane glycoprotein degradation 21–28

UDP-glucuronoyltransferase
antiserum against Wistar-rat liver enzyme 155–163
immunochemical comparison in Gunn- and Wistar-rat livers 155–163

Vitamin D binding protein
human plasma 401–410
transport of vitamin D and metabolites 401–410

Water
eclusion volume from collagenous meshworks 761–768

Waterbug (Lethocerus)
flight-muscle Z-disc proteins 333–339

Wheat (Triticum aestivum)
chloroplast sedoheptulose bisphosphatase 845–849

Wheat germ
terminal deoxyribonucleotidyltransferase 139–145

Xanthine oxidase
cyanide-labile sulphur atom 265–267
e.x.a.f.s. of molybdenum 499–508
molybdenum-linked sulphur atom detected by e.p.r. 265–267

X-ray absorption spectroscopy
molybdenum in xanthine oxidase 499–508

Yeast (Saccharomyces carlsbergensis)
proteins and nucleoproteins 269–272

Yeast (Trichosporon cutaneum)
degradation of aromatic compounds 37–43
purification of cis,cis-muconate cyclase 37–43

Z-discs
protein composition 333–339

Zinc
metallothioneins 475–485

Zona pellucida
β-N-acetylhexosaminidase action 827–834
ACKNOWLEDGEMENT TO REFEREES

The Editorial Board of the *Biochemical Journal* gratefully acknowledges the assistance given during the 1979–1980 academic year by the following referees:

<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. L. P. Adams</td>
<td>J. G. Beeley</td>
<td>C. F. A. Bryce</td>
</tr>
<tr>
<td>P. S. Agutter</td>
<td>P. W. Beesley</td>
<td>M. E. Buckingham</td>
</tr>
<tr>
<td>K. Ákerman</td>
<td>E. A. Bell</td>
<td>W. Bullough</td>
</tr>
<tr>
<td>M. Akhtar</td>
<td>M. V. Bell</td>
<td>B. Burchell</td>
</tr>
<tr>
<td>K. G. M. M. Alberti</td>
<td>P. A. Bell</td>
<td>K. Burdett</td>
</tr>
<tr>
<td>D. Allan</td>
<td>R. Benne</td>
<td>R. E. Burge</td>
</tr>
<tr>
<td>A. K. Allen</td>
<td>B. Bennett</td>
<td>K. Burton</td>
</tr>
<tr>
<td>R. Ambler</td>
<td>J. P. Bennett</td>
<td>A. F. Bury</td>
</tr>
<tr>
<td>M. Anderson</td>
<td>M. J. Berridge</td>
<td>P. H. W. Butterworth</td>
</tr>
<tr>
<td>A. T. Andrews</td>
<td>G. T. N. Besley</td>
<td>P. J. Butterworth</td>
</tr>
<tr>
<td>P. Andrews</td>
<td>P. C. L. Beverley</td>
<td>P. J. Buttery</td>
</tr>
<tr>
<td>G. B. Ansell</td>
<td>R. Beynon</td>
<td>R. B. Cain</td>
</tr>
<tr>
<td>D. J. Anstee</td>
<td>K. D. Bhoola</td>
<td>B. A. Callingham</td>
</tr>
<tr>
<td>C. Anthony</td>
<td>M. A. Billett</td>
<td>R. Cammack</td>
</tr>
<tr>
<td>D. K. Apps</td>
<td>B. Billing</td>
<td>A. K. Campbell</td>
</tr>
<tr>
<td>B. E. Argent</td>
<td>G. D. Birnie</td>
<td>A. M. Campbell</td>
</tr>
<tr>
<td>D. M. G. Armstrong</td>
<td>J. O. Bishop</td>
<td>M. Cannon</td>
</tr>
<tr>
<td>R. Aschaffenburg</td>
<td>G. M. Blackburn</td>
<td>E. M. Carey</td>
</tr>
<tr>
<td>R. Ash</td>
<td>N. Blackburn</td>
<td>J. Carnie</td>
</tr>
<tr>
<td>S. J. H. Ashcroft</td>
<td>G. J. Blackwell</td>
<td>R. Casey</td>
</tr>
<tr>
<td>G. L. Atkins</td>
<td>H. Blaschko</td>
<td>A. E. G. Cass</td>
</tr>
<tr>
<td>S. A. Austin</td>
<td>D. Bloxham</td>
<td>M. A. Cawthorne</td>
</tr>
<tr>
<td>S. Ayad</td>
<td>A. H. Bone</td>
<td>D. J. Candy</td>
</tr>
<tr>
<td>H. S. Bachelard</td>
<td>R. Bonnett</td>
<td>E. M. Chance</td>
</tr>
<tr>
<td>J. S. D. Bacon</td>
<td>A. G. Booth</td>
<td>D. Chapman</td>
</tr>
<tr>
<td>A. A.-B. Badawy</td>
<td>I. R. Booth</td>
<td>J. B. Chappell</td>
</tr>
<tr>
<td>A. J. Bailey</td>
<td>N. A. Booth</td>
<td>P. A. Charlwood</td>
</tr>
<tr>
<td>E. Bailey</td>
<td>R. Booth</td>
<td>L. F. Chasseaud</td>
</tr>
<tr>
<td>G. S. Bailey</td>
<td>R. F. G. Booth</td>
<td>W. R. Chegwidden</td>
</tr>
<tr>
<td>G. D. Baird</td>
<td>N. M. Borthwick</td>
<td>W. W. Christie</td>
</tr>
<tr>
<td>C. W. Bamforth</td>
<td>D. Boulter</td>
<td>J. R. Clamp</td>
</tr>
<tr>
<td>A. D. Bangham</td>
<td>J. Bouma</td>
<td>G. M. Clore</td>
</tr>
<tr>
<td>P. Banks</td>
<td>D. Bowen</td>
<td>W. Cockburn</td>
</tr>
<tr>
<td>D. W. Bannister</td>
<td>D. H. Boxer</td>
<td>S. S. Cockcroft</td>
</tr>
<tr>
<td>R. G. Bardsley</td>
<td>G. S. Boyd</td>
<td>A. Coddington</td>
</tr>
<tr>
<td>W. G. Bardsley</td>
<td>T. A. Bramley</td>
<td>J. R. Coggins</td>
</tr>
<tr>
<td>T. Barkas</td>
<td>M. J. Brammer</td>
<td>G. M. Cohen</td>
</tr>
<tr>
<td>E. A. Barnard</td>
<td>C. J. Branford White</td>
<td>P. Cohen</td>
</tr>
<tr>
<td>M. J. Barnes</td>
<td>I. Bremner</td>
<td>J. O. D. Coleman</td>
</tr>
<tr>
<td>M. M. Barnes</td>
<td>D. E. Briggs</td>
<td>R. Coleman</td>
</tr>
<tr>
<td>S. Barnes</td>
<td>A. F. Bristow</td>
<td>J. Conchie</td>
</tr>
<tr>
<td>A. J. Barrett</td>
<td>G. Britton</td>
<td>M. J. Connock</td>
</tr>
<tr>
<td>J. M. Basford</td>
<td>J. H. Brock</td>
<td>G. M. W. Cook</td>
</tr>
<tr>
<td>A. R. Battersby</td>
<td>J. R. Bronk</td>
<td>D. B. Coult</td>
</tr>
<tr>
<td>P. Baudhuin</td>
<td>P. Brookes</td>
<td>R. A. Cox</td>
</tr>
<tr>
<td>H. Baum</td>
<td>C. J. W. Brooks</td>
<td>N. Crawford</td>
</tr>
<tr>
<td>M. Bayliss</td>
<td>C. Brown</td>
<td>J. M. Creeth</td>
</tr>
<tr>
<td>G. H. Beaven</td>
<td>S. B. Brown</td>
<td>J. E. Cremer</td>
</tr>
<tr>
<td>G. Beddard</td>
<td>K. R. Bruckdorfer</td>
<td>D. Critchley</td>
</tr>
<tr>
<td>T. J. C. Beebee</td>
<td>R. V. Brunt</td>
<td>M. Crompton</td>
</tr>
<tr>
<td>R. B. Beechey</td>
<td>C. J. Bruton</td>
<td>E. M. Crook</td>
</tr>
<tr>
<td></td>
<td>J. Bryant</td>
<td></td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT TO REFEREES

A. Cryer
V. J. Cunningham
G. Curzon
N. E. Dance
A. Darbre
B. H. Davies
D. R. Davies
D. S. Davies
M. Davies
N. T. Davies
P. Davies
R. J. H. Davies
E. A. Dawes
A. P. Dawson
P. D. G. Dean
H. de Jonge
H. T. Delves
F. De Matteis
A. J. Dickson
D. Dickson
I. Dickson
R. R. Dils
A. T. Diplock
H. B. F. Dixon
K. S. Dodgson
I. A. Donaldson
H. M. Dott
V. C. Duance
J. H. Duffus
R. J. S. Duncan
J. P. Durham
R. A. Dwek
R. R. Eady
J. E. Eastoe
A. A. Eddy
P. A. Edwards
G. H. Elder
K. R. F. Elliott
D. T. Elmore
G. Embery
P. J. England
M. B. Enser
M. P. Esnouf
D. J. Etherington
M. C. W. Evans
W. H. Evans
J. H. Exton
K. Fantes
R. Farndale
R. B. Fears
A. Feinstein
S. Ferguson
E. B. Fern
A. R. Fersht
C. A. Fewson
E. M. Fielden
J. B. C. Findlay
J. B. Finean
R. A. Flavell
A. Fleck
R. J. Flower
K. Fotherby
L. A. Fothergill
D. R. Fraser
N. Frearson
R. Freedman
A. E. Friday
P. Gabbott
C. G. Gahmberg
J. T. Gallagher
D. J. Galton
P. J. Garlick
C. J. Garratt
A. J. Geddes
G. A. Gilbert
I. Giles
E. P. Giorgi
W. H. Gispin
J. Glover
P. Glynn
D. F. Goldspink
P. W. Goodenough
G. H. Goodwin
A. H. Gordon
B. J. Gould
D. B. Gower
A. B. Graham
J. M. Graham
R. J. A. Grand
J. K. Grant
M. E. Grant
W. B. Gratzer
G. M. Gray
J. Gray
A. R. Green
C. Green
C. D. Green
M. L. Green
N. M. Green
O. Greengard
C. Greenwood
G. Gregoriadis
J. R. Griffiths
P. L. Grover
M. I. Gurr
H. G. Gutfriend
S. Gutteridge
W. E. Gutteridge
C. N. Hales
A. P. Halestrap
T. Hallinan
B. Halliwell
W. A. Hamilton
R. Hammond
J. J. Harding
T. E. Hardingham
R. D. Harkness
E. J. Harris
D. E. Harrison
R. Harrison
R. A. P. Harrison
I. C. Hart
J. Harwood
J. M. Haslam
R. A. Hawkins
J. N. Hawthorne
D. F. Heath
M. F. Heath
J. Heffron
K. P. M. Heirwegh
F. W. Hemming
B. Hemmings
D. G. Herries
H.-G. Hers
T. R. Hesketh
S. J. Higgins
H. A. O. Hill
C. J. Hillyard
R. H. Hinton
M. W. Ho
M. B. Hodgins
J. A. Hoffmann
J. G. Hoggett
J. J. Holbrook
M. R. Hollaway
G. Holman
R. W. Honess
P. Horton
L. Hough
J. R. S. Hoult
M. D. Houslay
S. L. Howell
D. P. Hucklesby
A. K. Huggins
R. C. Hughes
W. A. Hughes
D. M. Hunt
M. I. S. Hunter
W. M. Hunter
D. W. Hutchinson
H. P. A. Illing
J. I. Illingworth
W. J. Ingledew
R. F. Irvine
R. F. Itzhaki
S. Itzhaki
D. S. Jackson
J. B. Jackson
R. J. Jackson
W. Jacobson
A. T. James
S. P. James
K. Jann
ACKNOWLEDGEMENT TO REFEREES

J. Jänne
W. Jessup
R. A. John
P. Johnson
P. M. Johnson
I. R. Johnston
A. P. Johnstone
C. T. Jones
C. W. Jones
D. S. Jones
E. A. Jones
K. M. Jones
M. N. Jones
O. T. G. Jones
J. D. Judah
J. Kay
J. E. Kay
B. Keil
R. G. O. Kekwick
G. L. Kellett
J. Kendrick-Jones
P. W. Kent
J. C. Kernohan
M. A. Kerr
B. Ketterer
V. Kilgour
D. C. Kilpatrick
R. J. B. King
C. J. Kirk
K. I. Kivirikko
M. Klingenberg
P. A. Knauf
G. Knight
J. S. Knowland
J. T. Knowler
P. Knox
H. L. Kornberg
H. A. Krebs
N. J. Kuhn
A. Kurtz
P. Lachmann
B. G. Lake
A. Lang
G. J. Laurent
D. E. M. Lawson
P. J. Lea
D. H. Leaback
D. P. Leader
A. G. Lee
R. M. Leech
N. D. Light
M. D. Lilly
L. Lim
P. F. R. Little
J. Littleton
G. Livesey
C. W. Lloyd
D. Lloyd

J. B. Lloyd
U. E. Loening
A. K. Lough
A. G. Lowe
P. N. Lowe
J. Lumsden
G. A. Lyles
A. J. MacGillivray
W. Mackie
A. H. Maddy
W. I. P. Mainwaring
A. D. B. Malcolm
J. P. G. Malthouse
D. J. Manners
W. Manson
T. J. Mantle
A. Maroudas
B. R. Martin
S. R. Martin
R. M. Mason
A. P. Mathias
H. R. Matthews
R. J. Mayer
P. A. Mayes
F. McCapra
J. G. McCormack
F. McCormick
R. G. McDonald-Gibson
J. D. McGivan
P. McIntosh
A. E. McLean
C. McMartin
A. McNeilly
M. A. McNurlan
C. J. Meade
A. J. Meijer
M. A. L. Melvin
T. B. Mepham
E. I. Mercer
J. C. Metcalfe
N. Mian
R. H. Michell
B. Middleton
M. Midgley
C. F. Mills
G. L. Mills
D. J. Millward
E. J. Milner-White
D. Milsom
A. S. Milton
K. A. Mitropoulos
M. Monsigny
W. Montague
T. A. Moore
H. R. Morris
I. G. Morris
D. Mortimer
D. Morton
D. W. Moss
G. P. Moss
J. Mowbray
J. Moyle
G. J. Mulder
B. M. Mullock
K. A. Munday
R. J. Naftalin
S. Neidle
A. Newby
E. A. Newsholme
A. A. Newton
D. G. Nicholls
B. H. Nicholson
H. G. Nimmo
I. A. Nimmo
J. T. Nodes
A. C. T. North
M. J. North
D. H. Northcote
J. A. Nott
P. B. Nunn
P. Ó Carra
G. W. Offer
J. E. O'Grady
M. J. O'Hare
M. G. Ord
M. J. Owen
P. Page Thomas
V. M. Pain
J. M. Palmer
T. N. Palmer
D. S. Parsons
J. Y. F. Paterson
C. R. Patrick
C. K. Pearson
J. A. Pearson
A. E. Pegg
J. F. Pennock
R. N. Perham
T. J. Peters
G. Pettersson
G. W. Pettigrew
C. F. Phelps
J. H. Phillips
G. A. J. Pitt
R. Pitt-Rivers
R. J. Pollitt
J. W. Porteous
N. Poyser
N. C. Price
R. G. Price
R. V. Quincey
P. J. Quinn
G. K. Radda
W. N. M. Ramsay
ACKNOWLEDGEMENT TO REFEREES

D. B. Ramsden
P. J. Randle
K. K. Rao
C. Ratledge
L. J. Reed
P. J. Reeds
H. H. Rees
M. J. Rennie
P. R. Rich
M. Richardson
D. Rickwood
D. Ridge
G. C. K. Roberts
A. B. Robins
S. Robins
D. S. Robinson
R. Rodnight
L. J. Rogers
F. F. G. Rommerts
F. A. Rose
M. Rosemeyer
B. D. Ross
C. E. Rowe
P. Rowell
E. V. Rowsell
M. G. Rumsby
A. P. Ryle
B. E. Ryman
R. Saffhill
E. D. Saggerson
D. M. W. Salmon
G. A. Salmon
S. Salmons
R. Schauer
J. G. Schofield
S. L. Schor
M. C. Scrutton
A. W. Segal
N. Seiler
K. Selby
M. J. Selwyn
A. Serafini-Fracassini
S. Shall
R. M. Sharpe
R. Sheaves
B. Sheldrick
A. M. Sheltawy
S. Shenolikar
D. M. Shepherd
H. S. A. Sherrat
P. Shetlerline
C. A. Shuttleworth
M. L. Sinnott
G. G. Skellern
L. L. Smith
M. W. Smith
W. K. Smith
D. G. Smyth
K. Snell
S. Spadari
P. T. Speakman
N. Spencer
W. Stalmans
D. A. Stansfield
P. Starkey
J. Stephenson
F. S. Steven
L. Stevens
J. L. Stirling
A. Stockell Hartree
L. A. Stocken
R. W. Stoddart
M. S. Stoll
P. L. Storring
M. Stubbs
T. Stuchbury
R. G. Sturton
K. E. Suckling
M. C. Sugden
P. H. Sugden
E. K. Symes
J. M. Tager
G. H. Tait
K. W. Taylor
F. W. J. Teale
D. R. Thatcher
G. H. Thomas
J. Thompson
R. J. Thompson
A. Thomson
K. F. Tipton
M. G. Townsend
I. P. Trayer
P. W. Trudgill
N. Tudball
P. Tulkens
M. K. Turner
G. Turnock
D. D. Tyler
G. Vaes
H. Valdimarsson
G. Van den Berghe
G. van de Werve
R. Virden
M. Voaden
H. P. Voorheis
S. G. Waley
C. H. Walker
D. A. Walker
D. G. Walker
I. O. Walker
J. E. Walker
J. M. Walker
M. Wallis
D. C. Watts
M. Webb
J. B. Weiss
P. D. J. Weitzman
I. C. West
C. W. Wharton
F. R. Whatley
K. P. Wheeler
D. A. White
P. Whiteman
P. D. Whitten
D. G. Wild
S. G. Wilkinson
J. Williams
K. E. Williams
A. R. Williamson
D. H. Williamson
E. D. Wills
M. T. Wilson
B. G. Winchester
G. P. Winter
D. J. Winterbourne
P. J. Winterburn
G. B. Wisdom
A. Wiseman
G. J. Wishart
M. H. Wisher
T. M. Wood
J. F. Woodley
D. Woolley
J. C. Wotton
J. M. Wrigglesworth
F. S. Wusteman
C. H. Wynn
G. T. Yarranton
A. Yarwood
D. W. Yates
S. J. Yeaman
J. D. Young
J. L. Young
L. J. Zatman