

The BIOCHEMICAL JOURNAL

1 November 1978

Volume 175, No. 2

EDITORIAL BOARD

Chairman

J. T. Dingle

Deputy Chairmen

J. A. Lucy

A. P. Ryle

D. H. Williamson

R. E. Offord

Editorial Manager

A. G. J. Evans

P. M. Bayley*

J. W. Bradbeer

R. C. Bray

J. W. Bridges

D. N. Brindley

H. G. Britton

R. B. Cain

M. Cannon

J. B. Clark

A. J. Cornish-Bowden

D. D. Davies

R. M. Denton

F. M. Dickinson

R. R. Dils

G. J. Dutton

J. L. Gordon

D. E. Griffiths

L. A. Grivell

M. R. Hollaway

R. C. Hughes

A. J. Kenny

P. Lund

R. M. Marchbanks

C. I. Pogson

K. B. M. Reid

D. Robinson

E. V. Rowsell

D. Schulster

J. E. Scott

S. P. Spragg*

D. R. Stanworth

M. J. A. Tanner

*Nominated by the British
Biophysical Society

Overseas Advisory Panel

**H. Beinert (U.S.A.), H. F. DeLuca (U.S.A.), W. Fiers (Belgium), O. Hayaishi (Japan),
B. Hess (Germany), D. B. Keech (Australia), T. C. Laurent (Sweden), A. Tissières
(Switzerland), O. Wieland (Germany),**



London: The Biochemical Society

THE BIOCHEMICAL SOCIETY

OFFICERS AND COMMITTEE, 1978–79

Chairman of the Committee
R. R. Porter, F.R.S.

Treasurer
D. F. Elliott

General Secretary
J. B. Lloyd

Publications Secretary
R. M. C. Dawson

Meetings Secretary
H. F. Bradford

Committee
G. B. Ansell
J. R. Bronk
E. G. Brown
N. G. Carr
P. H. Clarke, F.R.S.
J. T. Dingle*
P. F. Fottrell
C. Green
M. I. Gurr
F. W. Hemming
H. K. King
J. C. Metcalfe

I. H. M. Muir, F.R.S.
J. W. Porteous, F.R.S.E.
B. E. Ryman

**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. 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 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] (obtainable free on request, in booklet form, from the Executive Secretary, The Biochemical Society, 7 Warwick Court, London WC1R 5DP).

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, 50 reprints are provided free of charge.

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 1978 eight volumes, each volume being made up of three issues, will be published according to the following schedule:

Molecular Aspects			Cellular Aspects		
1978	Vol.	Part	1978	Vol.	Part
1 Jan.	169	1	15 Jan.	170	1
1 Feb.	169	2	15 Feb.	170	2
1 Mar.	169	3*	15 Mar.	170	3*
1 Apr.	171	1	15 Apr.	172	1
1 May	171	2	15 May	172	2
1 June	171	3*	15 June	172	3*
1 July	173	1	15 July	174	1
1 Aug.	173	2	15 Aug.	174	2
1 Sept.	173	3*	15 Sept.	174	3*
1 Oct.	175	1	15 Oct.	176	1
1 Nov.	175	2	15 Nov.	176	2
1 Dec.	175	3*	15 Dec.	176	3*

*Completes volume, and includes Indexes.

Biochemical Society Transactions. This is a separate publication (see below). Volume 6 will be published in 1978, in six parts.

Subscription Rates to the Biochemical Journal. For non-members of the Biochemical Society the subscription rates for 1978 are shown below.

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

IMPORTANT NOTICE. All subscribers outside the U.K. and Ireland must remit in U.S. \$ or the sterling equivalent at the rate of exchange prevailing at the date of payment.

	U.K. & Ireland only	U.S.A., Canada & Mexico	Japan only	Overseas
1 year (8 volumes)	£170.00	U.S. \$320.00	U.S. \$330.00	U.S. \$300.00
Per volume	£22.00	U.S. \$45.00	U.S. \$46.00	U.S. \$42.00
Per part	£8.00	U.S. \$16.00	U.S. \$16.50	U.S. \$15.00

Airfreight to U.S.A., Canada and Mexico. The subscription rates for North America include an element for this service.

Accelerated Surface Post to Japan only. The subscription rates include a 10% surcharge for this service.

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.

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, plus such time as would be expected for transit by post.

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 Book Depot, P.O. Box 32, Commerce Way, Colchester CO2 8HP, Essex.

Microforms. The following versions are available.

(a) Microfilm (36 mm): Volumes 1-101.

(b) Microfiche (98-image): Volumes 102-168.

Details and prices are available on request from the Biochemical Society's Colchester office.

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.

INDEX OF AUTHORS

	PAGE		PAGE		PAGE
Abraham, E. P.	441	Findlay, B. P.	565	Phelps, D. J.	727
Akhtar, M.	421	Forstner, G. G.	565	Philippe, M.	585, 595
Allen, J. C.	573	Forstner, J. F.	565	Phillips, G. O.	573
Anttinen, H.	737			Polya, G. M.	501
Ashton, A. R.	501	Galdes, A.	441	Porter, R. R.	383, 675
		Gharrett, A. J.	367	Prus, E.	607
Bachmann, C.	449	Giacometti, G.	407	Purzycka-Preis, J.	607
Baden, D. G.	353	Giacometti, G. M.	407		
Baldo, B. A.	467	Giardina, B.	407	Reglero, A.	743
Baldwin, G. S.	441	Goers, J. W. F.	675	Rigatti, G.	407
Berüter, J.	449	Grazi, E.	361		
Blackwell, C. M.	555			Sale, G. J.	421
Boveris, A.	431	Halliwell, B.	601	Sawyer, W. H.	467
Brocklehurst, K.	761	Hart, G. J.	753	Schnoes, H. K.	479
Brunner, G.	643	Heagy, W.	547	Sim, R. B.	383
Brunori, M.	407	Hill, H. A. O.	441	Sinnot, M. L.	525, 539
		Hogy, L.	367	Smith, B. E.	441
Cabezas, J. A.	743	Holmes, R. S.	377	Smith, P. J.	525
Calvo, P.	743	Hoogenraad, N. J.	377	Sottrup-Jensen, L.	613
Carey, P. R.	727	Höök, M.	691	Southgate, C. C. B.	461
Chance, E. M.	709	Hopper, D. J.	649, 659	Srivastava, B. I. S.	519
Chappel, A.	377			Stansfield, D. A.	579
Chevallier, P.	585, 595	Jones, R.	391	Stick, R. V.	467
Chipko, B. R.	353			Stoppani, A. O. M.	431
Christensen, U.	635	Keat, M. J.	649, 659	Suter, D.	643
Clemmensen, I.	635	Kerr, M. A.	383		
Clore, G. M.	709	King, H. K.	669	Takada, Y.	765
Cobb, M. H.	547	Kivirikko, K. I.	737	Tamiya, N.	507
Coggins, J. R.	391	Kulomaa, M. S.	685	Tengblad, A.	691
Cole, J. A.	483, 495	Kumar, K.	727	Thøgersen, H. C.	613
Coleman, K. J.	483, 495			Thunberg, L.	691
Coletta, M.	407	Laurent, T. C.	691, 703	Towner, P.	421
Colombo, J.-P.	449	Lenhoff, H. M.	547	Trombetta, G.	361
Comper, W. D.	703	Lindahl, U.	691	Tuohimaa, P. J.	685
Corbett, M. D.	353	List, S. J.	565	Turner, J. M.	555
Cornish-Bowden, A.	483, 495			Turens, J. F.	431
		Madhok, T. C.	479	Uhlenbruck, G.	467
Daikun, G. P.	573	Maeda, N.	507	Umezurike, G. M.	455
Danner, J.	547	Magnusson, S.	613		
Davies, R.	669	Malcolm, A. D. B.	391	Viratelle, O. M.	539
DeLuca, H. F.	479	Malkinson, A. M.	367		
De Rycker, J.	601	Malthouse, J. P. G.	761	Waley, S. G.	441
Dicioccio, R. A.	519	Mandella, R. D.	629	Weech, P. K.	413
Dickinson, F. M.	753	Marshall, G. R.	547	White, H. B., III	629
Dixon, H. B. F.	461	Meslar, H. W.	629	Wilkins, M. B.	391
Docampo, R.	431	Mills, G. L.	413	Withers, S. G.	539
Dodds, A. W.	383	Morris, H. R.	613	Woodnut, G.	757
		Myllylä, R.	737	Woźnaik, M.	607
Edwards, H. E.	573				
Elo, H. A.	685	Noguchi, T.	765	Young, J. L.	579
				Young, N. M.	727
Ferber, E.	643	Parker, D. S.	757		
Fewson, C. A.	391	Petersen, T. E.	613	Żydowo, M.	607