Pages 1593–1668 ISSN 0022-4936



Journal of the Chemical Society

# **Chemical Communications**

Preliminary accounts of important new work in chemistry

## The Royal Society of Chemistry Journal of the Chemical Society, Chemical Communications

Editorial Board (Journals Management Committee)

Professor H. M. Frey (Reading) (Chairman)

Dr A. G. Fogg (Loughborough)
Professor B. C. Gilbert (York)
Miss A. R. Haygarth Jackson (Chairman, PIB)
Professor G. W. Kirby (Glasgow)
Professor G. J. Leigh (AFRC, Sussex)

Professor S. M. Roberts (Exeter) Professor I. W. M. Smith (Birmingham) Professor A. R. West (Aberdeen) Dr I. A. Williams (RSC, Cambridge)

#### Regional Advisory Board

E. Angelescu (Bucharest)
J. L. Atwood (Alabama)
A. L. J. Beckwith (Canberra)
M. H. Chisholm (Indiana)
G. Ferguson (Guelph)
C. Floriani (Lausanne)
C. Fuganti (Milan)

P. Gray (Cambridge)
E. Kimura (Hiroshima)
G. W. Kirby (Glasgow)
J.-M. Lehn (Strasbourg)
P. M. Maitlis (Sheffield)
G. Mehta (Hyderabad)
J. Michalski (Łodz)

H. Moon (Taejong)
K. C. Nicolaou (California)
H. Pfeifer (Leipzig)
C. N. R. Rao (Bangalore)
C. W. Rees (London)
P. v. R. Schleyer (Erlangen)
T. Shono (Osaka)

#### Editorial Staff

Manager, Journals: Alan McNaught Editor: Peter Whittington Senior Assistant Editor: David Bradley

Assistant Editors: Suzanne Davison, Michael Francis, Dorn Nixon Editorial Secretaries: Michelle Brown, Mandy Scripps Text Artwork: Dennis Halls

Text Altwork. Definis Hans

Manuscripts and correspondence on editorial matters should be addressed to:

The Editor, Chemical Communications, The Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road.

Milton Road, Cambridge UK CB4 4WF

E-Mail (INTERNET): RSC1@RSC.ORG

Telephone:

National: Cambridge (0223) 420066

International: +44223 420066

Fax (Group III):

National: Cambridge (0223) 423623 or 420247

International: +44223 423623 or 420247

Telex: 818293 ROYAL

Dialcom/Telecom Gold Mailbox No: 84:BUR500

Advertisement sales: tel. +44 (0) 71-287-3091; fax. +44 (0) 71-494-1134

The 1993 Annual member subscription price is £57.00. Members' orders, subscription (preferably accompanied by the appropriate remittance), and correspondence concerning the supply of Chemical Communications should be addressed to The Membership Officer at the above address.

Chemical Communications (ISSN 0022–4936) is published twice monthly by The Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 4WF. All orders accompanied by payment should be sent directly to The Royal Society of Chemistry, Turpin Distribution Services Ltd., Blackhorse Road, Letchworth, Herts, UK SG6 1HN. N.B. Turpin Distribution Services Ltd., distributors, is wholly owned by The Royal Society of Chemistry. 1993 annual subscription rate: EC £380.00, Rest of World £418.00, Canada (excl. GST) £439.00, USA \$836.00. Customers should make payments by cheque in sterling payable on a UK clearing bank or in US dollars payable on a US clearing bank. Second class postage is paid at Rahway, NJ. Airfreight and mailing in the USA by Mercury Airfreight International Ltd. Inc., 2323 Randolph Avenue, Avenel, NJ 07001, USA, and at additional mailing offices. USA Postmaster: send address changes to Chemical Communications, c/o Mercury Airfreight International Ltd. Inc., 2323 Randolph Avenue, Avenel, NJ 07001. All despatches outside the UK by Consolidated Airfreight. PRINTED IN THE UK.

### © The Royal Society of Chemistry, 1993.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photographic, recording, or otherwise, without the prior permission of the publishers.