

BIOORGANIC & MEDICINAL CHEMISTRY

Editor-in-Chief: **Professor Chi-Huey Wong**

The Scripps Research Institute, Department of Chemistry, BBC 483A, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA

Facsimile: (1) 858 784 7750

Facsimile: (800) 410 1557 toll-free within the USA and Canada

Japanese Regional Editor: Professor Y. Hashimoto, Institute of Molecular & Cellular Biosciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-0032, Japan

Facsimile: (81) 3 5841 8495

European Regional Editor: Professor H. Waldman, Department of Chemical Biology, Max-planck-Institut für Molekulare Physiologie, Otto-Hahn-Strasse 11, 44227 Dortmund, Germany

Facsimile: (49) 231 133 2499

EXECUTIVE BOARD OF EDITORS FOR TETRAHEDRON PUBLICATIONS

Chairman: **Professor L. Ghosez**

Editor Emeritus: **Professor H. H. Wasserman**

Professor D. L. Boger, Department of Chemistry, The Scripps Research Institute, La Jolla, CA 92037, USA

Professor S. G. Davies, Chemistry Research Laboratory, Department of Chemistry, University of Oxford, Oxford, OX1 3TA, UK

Professor B. Ganem, Department of Chemistry and Chemical Biology, Baker Laboratory, Cornell University, Ithaca, NY 14853-1301, USA

Professor L. Ghosez, Laboratoire de Chimie Organique de Synthèse, Université Catholique de Louvain, B-1348 Louvain-la-Neuve, Belgium

Professor Lin Guo-Qiang, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Road, Shanghai 200032, China

Professor S. F. Martin, Department of Chemistry and Biochemistry, University of Texas, Austin, TX 78712, USA

Professor W. B. Motherwell, Department of Chemistry, University College, 20 Gordon Street, London WC1H 0AJ, UK

Professor G. H. Posner, Department of Chemistry, Johns Hopkins University, Baltimore, MD 21218, USA

Professor M. Shibasaki, Graduate School of Pharmaceutical Sciences, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

Professor T. Shioiri, Graduate School of Environmental and Human Sciences, Meijo University, Shiogamaguchi, Tempaku, Nagoya 468-8502, Japan

Professor R. J. K. Taylor, Department of Chemistry, University of York, Heslington, York YO10 5DD, UK
(Associate Editors, Dr. P. A. O'Brien and Dr. D. K. Smith)

Professor E. J. Thomas, Department of Chemistry, University of Manchester, Brunswick Street, Manchester M13 9PL, UK
(Associate Editor, Professor J. A. Joule)

Professor H. Waldman, Max-Planck-Institut für Molekulare Physiologie, Department of Chemical Biology, Otto-Hahn-Strasse 11, 44227 Dortmund, Germany

Professor H. H. Wasserman, Department of Chemistry, Yale University, PO Box 208107, New Haven, CT 06520 8107, USA

Professor C.-H. Wong, Department of Chemistry, The Scripps Research Institute, La Jolla, CA 92037, USA

Professor J. Wood, Department of Chemistry, Yale University, PO Box 208107, New Haven, CT 06520-8107, USA

Professor Y. Yamamoto, Department of Chemistry, Faculty of Science, Tohoku University, Sendai 980-8578, Japan
(Associate Editor, Professor M. Hirama)

Professor S. Z. Zard, Laboratoire de Synthèse Organique, Ecole Polytechnique, F-91128, Cedex, France
(Associate Editor, Dr. B. Sire)

BOARD OF CONSULTING EDITORS

P. S. Anderson, Wilmington, DE
K. W. Bair, Summit, NJ
P. G. Baraldi, Ferrara
C. F. Barbas, III, La Jolla, CA
J. K. Barton, Pasadena, CA
C. Bertozzi, Berkeley, CA
R. C. Breslow, New York, NY
J. A. Bristol, Ann Arbor, MI
T. C. Bruice, Santa Barbara, CA
A. R. Chamberlin, Irvine, CA
P. N. Confalone, Wilmington, DE
E. J. Corey, Cambridge, MA
B. Cravatt, La Jolla, CA
S. J. Danishefsky, New York, NY
P. B. Dervan, Pasadena, CA
A. Eschenmoser, Zürich

J.-M. Fang, Taipei
A. R. Fersht, Cambridge
D. M. Floyd, Princeton, NJ
A. K. Ganguly, Bloomfield, NJ
B. Giese, Basel
H. B. Gray, Pasadena, CA
J. T. Groves, Princeton, NJ
G. L. Grunewald, Lawrence, KS
P. Herrling, Basel
D. Hilvert, Zürich
D. C. Horwell, Norwich
B. Imperiali, Cambridge, MA
K. Janda, La Jolla, CA
W. L. Jorgensen, New Haven, CT
A. R. Katritzky, Gainesville, FL
J. Kelly, La Jolla, CA

P. Krogsgaard-Larsen, Copenhagen
R. A. Lerner, La Jolla, CA
S. J. Lippard, Cambridge, MA
H. Liu, Austin, TX
D. Mansuy, Paris
A. McKillop, Northumberland
B. W. Metcalf, King of Prussia, PA
R. Metternich, Berlin
S. Mignani, Vitry-sur-Seine
L. A. Mitscher, Lawrence, KS
W. H. Moos, San Diego, CA
K. Mori, Tokyo
K. C. Nicolaou, La Jolla, CA
H. L. Pearce, Indianapolis, IN
P. Potier, Gif-sur-Yvette
C. D. Poulter, Salt Lake City, UT

J. Rebek, Jr, La Jolla, CA
B. Samuelsson, Stockholm
J. Saunders, San Diego, CA
S. L. Schreiber, Cambridge, MA
P. G. Schultz, Berkeley, CA
K. Shokat, San Francisco, CA
R. Silverman, Evanston, IL
J. Stubbe, Cambridge, MA
G. L. Verdine, Cambridge, MA
C. T. Walsh, Boston, MA
P. A. Wender, Stanford, CA
G. Whitesides, Cambridge, MA
R. V. Wolfenden, Chapel Hill, NC

PUBLISHED TWICE MONTHLY

Orders, claims, and product enquiries: please contact the Customer Service Department at the Regional Sales Office nearest you: **Orlando:** Elsevier, Customer Service Department, 6277 Sea Harbor Drive, Orlando, FL 32887-4800, USA; phone: (+1) (877) 8397126 [toll free number for US customers], or (+1) (407) 3454020; fax: (+1) (407) 3631354; e-mail: usjcs@elsevier.com **Amsterdam:** Elsevier, Customer Service Department, PO Box 211, 1000 AE Amsterdam, The Netherlands; phone: (+31) (20) 4853757; fax: (+31) (20) 4853432; e-mail: nlinfo-f@elsevier.com **Tokyo:** Elsevier, Customer Service Department, 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: jp.info@elsevier.com **Singapore:** Elsevier, Customer Service Department, 3 Killiney Road, 08-01 Winsland House I, Singapore 239519; phone: (+65) 63490222; fax: (+65) 67331510; e-mail: asiainfo@elsevier.com