

Editorial Board

William Bonfield, Editor

Department of Materials Science & Metallurgy,
University of Cambridge

Jonathan Ashmore

Department of Physiology, University College London

Christopher Dobson

Department of Chemistry, University of Cambridge

Francis Doyle III

Department of Chemical Engineering, University of California,
Santa Barbara

Neil Ferguson

Faculty of Medicine, Imperial College London

Wendy Hall

Department of Electronics and Computer Science,
University of Southampton

Larry Hench

Department of Materials, Imperial College London

Richard Henderson

MRC Laboratory of Molecular Biology, University of Cambridge

C. James Kirkpatrick

Institut für Pathologie, Johannes Gutenberg-Universität Mainz

Hiroaki Kitano

Sony Computer Science Laboratories, Inc., Tokyo

Richard Kitney

Department of BioEngineering, Imperial College London

Michael Klein

Laboratory for Research on the Structure of Matter,
University of Pennsylvania

Tadashi Kokubo

Research Institute for Science and Technology, Chubu University

Tom McLeish

IRC in Polymer Science and Technology, University of Leeds

Steve Oliver

School of Biological Sciences, University of Manchester

Dieter Oesterhelt

Membranbiochemie, Max-Planck-Institut für Biochemie, Martinsried

Julia Polak

TERM Centre, Division of Investigative Science, Imperial College London

Patrick Prendergast

Department of Mechanical & Manufacturing Engineering,
Trinity College Dublin

Sir George Radda

University Laboratory of Physiology, University of Oxford

David Rand

Department of Mathematics, University of Warwick

Neil Rushton

Orthopaedic Research Unit, University of Cambridge

John Ryan

Bionanotechnology IRC, University of Oxford

Simon Tavaré

Department of Biological Sciences, University of Southern California

Richard Templer

Department of Chemistry, Imperial College London

Martin Vingron

Computational Molecular Biology, Max-Planck-Institut
für molekulare Genetik, Berlin

Ioannis Yannas

Department of Mechanical Engineering, Massachusetts
Institute of Technology

Joseph Zaccai

Institut Laue Langevin, Grenoble

Xingdong Zhang

Engineering Research Center in Biomaterials, Sichuan University

Publishing Editor: Tim Holt

(tel: +44 (0)20 7451 2649; fax: +44 (0)20 7976 1837;

tim.holt@royalsoc.ac.uk)

Production Editor: Madalina Black

6-9 Carlton House Terrace, London SW1Y 5AG, UK

publishing.royalsoc.ac.uk

AIMS AND SCOPE

Interface is a new international journal publishing papers from the interface between the physical sciences, including mathematics, and the life sciences. It provides a high-quality forum to publish rapidly and interact across this boundary in two main ways: *Interface* publishes research applying chemistry, engineering, materials science, mathematics and physics to the biological and medical sciences; it also highlights discoveries in the life sciences that allow advances in the physical sciences. Both sides of the interface are considered equally.

Copyright © 2007 The Royal Society

Except as otherwise permitted under the Copyright, Designs and Patents Act, 1988, this publication may only be reproduced, stored or transmitted, in any form or by any other means, with the prior permission in writing of the publisher, or in the case of reprographic reproduction, in accordance with the terms of a licence issued by the Copyright Licensing Agency. In particular, the Society permits the making of a single photocopy of an article from this issue (under Sections 29 and 38 of this Act) for an individual for the purposes of research or private study.

SUBSCRIPTIONS

In 2007 *Journal of the Royal Society Interface* (ISSN 1742-5689) will be published bimonthly, with six issues a year. Full details of subscriptions may be obtained either by contacting our journal fulfilment agent, Portland Customer Services, Commerce Way, Colchester CO2 8HP; tel: +44 (0)1206 796351; fax: +44 (0)1206 799331; email: sales@portland-services.com or by visiting our website at publishing.royalsoc.ac.uk/subscribers. From 2007 personal subscriptions are available for this journal – see prices. Full ordering information can be obtained from Portland Customer Services. These rates apply to bona fide individual use only. They must be paid by personal cheque or credit card, and orders cannot be delivered to an institutional address. The Royal Society is Registered Charity No 207043.

Subscription prices 2008 calendar year	Europe	USA & Canada	All other countries
Printed version			
Institutional subscription	£924/US\$1709 €1386	£958/US\$1772	£978/US\$1809
Personal subscription	£169/€253	US\$332	£182/€336

Typeset in Europe by the Alden Group, Oxfordshire. Printed by Latimer Trend, Plymouth.

This paper meets the requirements of ISO 9706:1994(E) and ANSI/NISO Z39.48-1992 (Permanence of Paper) effective with volume 1, issue 1, 2004.

Journal of the Royal Society Interface (ISSN No: 1742-5689) is published bi-monthly by The Royal Society and distributed in the USA by DSW, 75 Aberdeen Road, Emigsville PA 17318. Periodicals postage paid at Emigsville, PA. POSTMASTER: send address changes to *Journal of the Royal Society Interface*, PO Box 437, Emigsville PA 17318-0437.