

materialstoday

Published byElsevier Ltd.
The Boulevard, Langford Lane,
Kidlington, OX5 1GB, UK**Editorial**Commercial Editor Jonathan Agbenyega
E-mail: j.agbenyega@elsevier.com
Managing Editor James Williams
E-mail: ja.williams@elsevier.com
Production Support Manager Lin Lucas
E-mail: llucas@elsevier.com**Advertising**Advertisements Manager Laurence Zipsen
E-mail: lzipsen@elsevier.com
Advertisement Sales
Guy Plowman
E-mail: g.plowman@elsevier.com**Free circulation enquiries**Rachael Williams
E-mail: ra.williams@elsevier.com
Elsevier Ltd, The Boulevard, Langford Lane, Kidlington,
Oxford, OX5 1GB UK
E-mail: r.@elsevier.com**Subscription orders & payments***Materials Today* (ISSN 1369-7021) is published 10 times per
year by Elsevier Ltd, The Boulevard, Langford Lane,
Kidlington, OX5 1GB, UKPrice: €220 / US\$246 / ¥29300
Europe/ROW Tel: +31 20 485 3757
USA Tel: +1 212 633 3730
© Elsevier Ltd, 2010All material published in *Materials Today* is copyright
Elsevier Ltd.Annual subscription price in the USA US\$ 234 (valid in North,
Central and South America), including air speed delivery.
Periodical postage paid at Rahway NJ and additional mailing
offices.Please send payment to: *Materials Today*

USA Postmaster send all USA address corrections to:

Customers in Europe, Middle East and Africa:
Elsevier Ltd, Journals Customer Service & Fulfillment
Department, The Boulevard, Langford Lane, Kidlington, OX5
1GB, UKTel: (+44) (0)1865 843434
Fax: (+44) (0)1865 843970
Email: JournalsCustomerServiceMEA@elsevier.comCustomers in Asia and Australasia:
Elsevier, Journals Customer Service & Fulfillment Department, 3
Killiney Road # 08-01, Winsland House 1, SINGAPORE 239519Tel: (+65) 6349 0222
Fax: (+65) 6733 1510
Email: JournalsCustomerServiceAPAC@elsevier.comCustomers in the United States & Canada:
Elsevier, Journals Customer Service & Fulfillment Department,
3251 Riverport Lane, Maryland Heights, MO 63043, USATel: (+1) 314 447 8878
Toll: (+1) 877 839 7126
Fax: (+1) 314 447 8077

Email: Journalcustomerservice-usa@elsevier.com

Customers in Japan:
Elsevier, Journals Customer Service & Fulfillment Department,
Higashi Azabu Bldg. 4F, 1-9-15 Higashi-Azabu, Minato-Ku,
Tokyo, 106-0044 JAPANTel: (+81) 3 55615037
Fax: (+81) 3 55615047
Email: JournalsCustomerServiceJapan@elsevier.comPeriodicals postage is paid at Rahway, NJ and additional
mailing offices.Missing issues: Responsibility cannot be accepted by the
Publishers after six months.This journal and the individual contributions contained in it are
protected under copyright by Elsevier Ltd, and the following
terms and conditions apply to their use:Photocopying: Single photocopies of single articles may be
made for personal use as allowed by national copyright laws.
Permission of the Publisher and payment of a fee is required
for all other photocopying, including multiple or systematic
copying, copying for advertising or promotional purposes, resale,
and all forms of document delivery. Special rates are available
for educational institutions that wish to make photocopies for
non-profit educational classroom use.Permissions may be sought directly from Elsevier Global Rights
Department, P.O. Box 800, Oxford OX5 1DX, UK; phone: (+44)
1865 843830, fax: (+44) 1865 853333, e-mail: permissions@
elsevier.com. You may also contact Global Rights directly
through Elsevier's homepage (www.elsevier.com), by selecting
"Obtaining Permissions".In the USA, users may clear permissions and make payments
through the Copyright Clearance Center, Inc., 222 Rosewood
Drive, Danvers, MA 01923, USA; phone: (+1) (978) 7508400,
fax: (+1) (978) 7504744, and in the UK through the Copyright
Licensing Agency Rapid Clearance Service (CLARCS), 90
Tottenham Court Road, London W1P 0LP, UK; phone: +44 (0)20
7631 5555; fax: +44 (0)20 7631 5500. Other countries may
have a local reprographic rights agency for payments.Derivative Works: Subscribers may reproduce tables of contents
or prepare lists of articles including abstracts for internal
circulation within their institutions. Permission of the Publisher
is required for resale or distribution outside the institution.
Permission of the Publisher is required for all other derivative
works, including compilations and translations.Electronic Storage or Usage: Permission of the Publisher is
required to store or use electronically any material contained in
this journal, including any article or part of an article.
Except as outlined above, no part of this publication may be
reproduced, stored in a retrieval system or transmitted in any
form or by any means, electronic, mechanical, photocopying,
recording or otherwise, without prior written permission of the
Publisher.Address permissions requests to: Elsevier Global Rights
Department, at the mail, fax and e-mail addresses noted above.
Notice: No responsibility is assumed by the Publisher for any
injury and/or damage to persons or property as a matter of
products liability, negligence or otherwise, or from any use
or operation of any methods, products, instructions or ideas
contained in the material herein. Because of rapid advances in
the medical sciences, in particular, independent verification of
diagnoses and drug dosages should be made.Although all advertising material is expected to conform to
ethical (medical) standards, inclusion in this publication does not
constitute a guarantee or endorsement of the quality or value of
such product or of the claims made of it by its manufacturer.Printed by Headley Brothers Ltd, Kent, UK
ISSN 1369-7021
Journal number: 03069

The voice of *Materials Today*.



We are all winners in the Materials community

Jonathan Agbenyega | Editor, *Materials Today* | j.agbenyega@elsevier.com

Congratulations to our winners of the 2009 cover competition. We had a fantastic response and I would just like to take this opportunity to thank all our winners, runners-up and those who were not so lucky this time for submitting your images to the event. Judging was extremely heated and many an argument was had over the merits of the various shortlisted entries; it was an extremely close run battle.

The winners are as follows:

Raquel Perez-Castillejos, New Jersey Institute of Technology, Newark, USA
Shruti Gour, Drexel University, Pennsylvania, USA
Patrick W. Cooley, MicroFab Technologies, Inc
Mike Shlepr *et al.*, Kimberly-Clark Corporation, Neenah, WI, USA
Mai Zhang, Florida State University, Tallahassee, USA
Jan Linnros, Royal Institute of Technology, Sweden
William Mook, Mechanics of Materials and Nanostructures Laboratory, Switzerland
Matthew Johnson, Northwestern University, USA
Kurbangali Tynyshtybaev, Physico-Technical Institute, Kazakhstan, Russia
Nivas Babu Selvaraj, University of Science and Technology, Poland

Where possible we will use winning images on our covers throughout the year, we will also be using the winners and runners up images throughout the year in other guises, as we will be introducing a number of new and exciting features to *Materials Today* as the year develops.

One of our first new features which you may have already noticed is our podcast column which we're branding

Matpod. Matpod will be a unique feature to many of our review articles giving you additional insight and detail to our review authors and their research.

Each audio clip is approximately 10 – 15 minutes in length and so will be ideal for you to listen to during a quick coffee break. You'll hear leading scientists and review authors to *Materials Today* talking about their current research, results and plans for the future. It is hoped that these small interviews will provide you with a human touch to the research and an additional launch pad in to the scientist's research field. Each interview will be slightly different and geared towards the scientist's character and expertise. If you would like to be featured here just drop James Williams our Managing Editor a quick email: ja.williams@elsevier.com he's waiting to hear from you!

I look forward to bringing you some of the most cutting edge research news and views over the year and making *Materials Today* the must read magazine for all material scientists, biologists, physicists and chemists: A stretching target I know, but as we see the broadening application of materials across these disciplines, the *Materials Today* team will look at the common elements and endeavour to present you with the solutions and opportunities you are looking for in your everyday research.

I hope you continue to enjoy *Materials Today*!

Editorial Advisory Panel

Gabriel Aeppli
University College London, UK
Caroline Baillie
Queens University, Canada
Zhenan Bao
Stanford University, USA
Franco Cacialli
University College London, UK
Martin Castell
University of Oxford, UK
Peter Goodhew
University of Liverpool, UK

Ulrich Gösele
Max Planck Institute of
Microstructure Physics, Germany
Hermann Grimmeiss
Lunds Universitet, Sweden
Alan Heeger
University of California, Santa
Barbara, USA
Mark Johnson
Naval Research Laboratory, USA
Richard A. L. Jones
University of Sheffield, UK

Neil McKeown
Cardiff University, UK
Tae Won Noh
Seoul National University, Korea
Stephen Pearton
University of Florida, USA
Marshall Stoneham FRS
University College London, UK
Helen Van Swygenhoven
Paul Scherrer Institute, Switzerland
Richard Vaia
Air Force Research Laboratory, USA

George Whitesides
Harvard University, USA
Jackie Yi-Ru Ying
Institute of Bioengineering and
Nanotechnology, Singapore