MRS SYMPOSIUM T

Volume 1786 • 2015 MRS Spring Meeting

Graphene and Carbon Nanotubes

EDITORS

Francesco Bonaccorso
Xinliang Feng
Andrea Ferrari
Ado Jorio
Maurizio Prato

A publication of the



MRS Online Proceedings Library

Editorial Board

Editorial Board Chair:

Michelle L. Oyen, Cambridge University, United Kingdom

Editorial Board Members:

David Bahr, Purdue University, USA

Asa Barber, University of Portsmouth, United Kingdom

Frank del Rio, National Institute of Standards and Technology, USA

Marilyn L. Minus, Northeastern University, USA

Roger Narayan, North Carolina State University, USA

The MRS Online Proceedings Library (ISSN: 1946-4274) features over 100,000 peer-reviewed papers presented at MRS Meetings. The proceedings papers can be viewed by meeting or topic, and are fully searchable.

Manuscripts: Information on article submission may be found at the *MRS Online Proceedings Library* homepage at http://journals.cambridge.org/opl.

Subscriptions: Institutions and libraries which are not current customers may purchase a 12-month unlimited access package to all MRS proceedings volumes/papers that are available online. To find out how to purchase OPL please contact: online@cambridge.org, in the Americas, or library.sales@cambridge.org, in the rest of the world.

Copyright © 2015, Materials Research Society. All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopying, or otherwise, without permission in writing from Cambridge University Press. Policies, request forms and contacts are available at: http://www.cambridge.org/rights/permissions/permission.htm. Permission to copy (for users in the USA) is available from Copyright Clearance Center http://www.copyright.com, email: info@copyright.com.

MATERIALS RESEARCH SOCIETY SYMPOSIUM T VOLUME 1786

Graphene and Carbon Nanotubes

Symposium held April 6-10, 2015, San Francisco, California, U.S.A.

EDITORS

Francesco Bonaccorso

Istituto Italiano di Tecnologia Genova, Italy

Xinliang Feng

Dresden University of Technology Dresden, Germany

Andrea Ferrari

University of Cambridge Cambridge, United Kingdom

Ado Jorio

Federal University of Paraná Belo Horizonte, Brazil

Maurizio Prato

Universita di Trieste Trieste, Italy



Materials Research Society Warrendale, Pennsylvania



ISSN: 1946-4274

CONTENTS

Aneshkumar Tilwani, Hildegarde Bell,
Jose Alvarez, Belqais Naqshbandi, and
Folarin Erogbogbo
High-throughput Fabrication of Silver Nanowire Networks That are Highly Stable under Current Flow by In Situ Interconnection with Single-walled Carbon Nanotubes
Precipitation of High-quality Multilayer-graphene Using Al ₂ O ₃
Barrier and Au Cap Layers
Takahiro Maruyama, and Shigeya Naritsuka
Cobalt Sulfide-graphene (CoSG) Composite based Electrochemical
Double Layer Capacitors
Subramaniam Chittur K.
Highly Crystalline Graphene Formation from Graphene Oxides by Ultrahigh Temperature Process Using Solar Furnace
Enhancement of the Gas Sensing Performance of Carbon Nanotube
Networked Films Based on Their Electrophoretic Functionalization
with Gold Nanoparticles
C. Di Franco, D. Suriano, R. Rossi,
F. Palmisano, L. Torsi, and N. Cioffi
Magnetic Field-assisted Preparations for 1-D Carbon
Nanomaterials: A Review

Graphitic Schottky Contacts to Si formed by Energetic
Deposition
Mohammad Saleh N. Alnassar,
Patrick W. Leech, Geoff K. Reeves,
Anthony S. Holland, Desmond W.M. Lau,
Dougal G. McCulloch, Hiep N. Tran, and
Jim G. Partridge
Synthesis and Electrochemical Characterization of Nano-graphite Oxide for Enzyme Free Detection of Cholesterol
Vasuda Bhatia, Bhawana Singh, and
Vinod K. Jain
Controlled Synthesis of Few Layer Graphene Films for Gas
Sensor Applications
S. Chaudhari, A.R. Graves, M.V. Cain, and
C.D. Stinespring