

MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 938

Molecular - Scale Electronics

April 17 – 21, 2006
San Francisco, California, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-55899-895-7

Some format issues inherent in the e-media version may also appear in this print version.

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town,
Singapore, São Paulo, Delhi, Tokyo, Mexico City

Cambridge University Press
32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org

Materials Research Society
506 Keystone Drive, Warrendale, PA 15086
<http://www.mrs.org>

©Materials Research Society 2028

This publication is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without the written
permission of Cambridge University Press.

First published 2028

CODEN: MRSPDH

ISBN: ; 9: /3/77: ; ; /: ; 7/9

Cambridge University Press has no responsibility for the persistence or
accuracy of URLs for external or third-part Internet Web sites referred to
in this publication and does not guarantee that any content on such Web sites
is, or will remain, accurate or appropriate.

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Ab Initio Calculation of Electron Transport Through Single Molecules by the RTM/NEGF Method	1
<i>Hirose, Kenji;Kobayashi, Nobuhiko</i>	
Nonvolatile Carbon Nanotube Memory Device with Molecular Charge Storage	7
<i>Sorger, Volker;Yao, Zhen</i>	
Probing Electronic Properties of Dendritic Ruthenium Complex Bound to Single Walled Carbon Nanotubes	13
<i>Chaturvedi, Harsh;Poler, J.</i>	
A Novel Nanotube-on-Insulator (NOI) Approach Toward Single-Walled Carbon Nanotube Devices	19
<i>Han, Song;Liu, Xiaolei;Ryu, Koungmin;Zhang, Daihua;Zhou, Chongwu</i>	
A Novel Non-Destructive Interfacing Technique for Molecular Scale Switching Junctions	25
<i>Donley, Carrie;Islam, M. Saif;Johns, Chad;Kimukin, Ibrahim;Ohlberg, Doug;Stewart, Duncan;Wang, Shih-Yuan;Williams, R. Stanley</i>	