

MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 1667

Organic and Inorganic Materials for Dye-Sensitized Solar Cells

April 21-25, 2014
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: 978-1-5108-0528-6

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

©Materials Research Society 2014

This reprint is produced with the permission of the Materials Research Society and Cambridge University Press.

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.

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
www.mrs.org

CODEN: MRSPDH

ISBN: 978-1-5108-0528-6

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

Optically Transparent Graphene Nanoplatelet Inks as Low Cost Electro-catalysts for Liquid Dye Sensitized Solar Cells	1
<i>J. Baker, T. M. Watson, D. Jones, D. Deganello, D. T. Gethin, T. C. Claypole</i>	
Investigating Charge Dynamics in Halide Perovskite Sensitized Mesostructured Solar Cells	7
<i>A. Listorti, V. Roiati, S. Colella, E. Mosconi, G. Lerario, L. De Marco, A. Rizzo, F. De Angelis, G. Gigli</i>	
Exfoliated Clay Nanoplatelets as Gelator and Oxidizing Agent for Ionic Liquid Electrolyte to Enhance Photovoltaic Performance of Dye-Sensitized Solar Cells	13
<i>Y.-C. Cheng, C.-H. Lee, C. K. Tsai, K.-F. Lin</i>	
Perovskite Based Hybrid Solar Cells with Transparent Carbon Nanotube Electrodes	20
<i>K. Mielczarek, A. A. Zakhidov</i>	
Achieving Improved Solar Absorbance of Small Organic Dyes Featuring Quinoidized Five-Membered Heterocycles	26
<i>W. H. Tu, Y. Y. Tan, S. Manzhos</i>	
Novel Polymer Gel Electrolytes with Poly(Oxyethylene)-Amidoacid Microstructures for Highly Efficient Quasi-Solid-State Dye-Sensitized Solar Cells	32
<i>S.-Y. Shen, R.-X. Dong, P.-T. Shih, K.-C. Ho, J.-J. Lin</i>	
MAPbI_{3-x}Cl_x Mixed Halide Perovskite for Hybrid Solar Cells: The Role of Chloride as Dopant on the Transport and Structural Properties	41
<i>S. Colella, E. Mosconi, P. Fedeli, A. Listorti, A. Rizzo, F. Gazza, F. Orlandi, P. Ferro, T. Besagni, G. Calestani, F. De Angelis, R. Mosca, G. Gigli</i>	
Polyaniline/Graphene/Multi-Walled Carbon Nanotube Composites as Counter Electrode for Dye-Sensitized Solar Cells	47
<i>Y.-C. Shih, H.-L. Lin, K.-F. Lin</i>	
Inkjet Printing of Titanium Dioxide Photoanodes for Dye Sensitized Solar Cells	52
<i>J. Johnson, L. Jiao</i>	
Author Index	