

MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 1784

Photoactive Nanoparticles and Nanostructures

April 6-10, 2015
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: 978-1-5108-2638-0

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

©Materials Research Society 2015

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: 978-1-5108-2638-0

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: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Superstructures from Lead Sulfide Quantum Dots	1
<i>E. Ushakova, V. Golubkov, A. Litvin, P. Parfenov, S. Cherevkov, A. Fedorov, A. Baranov</i>	
Photoelectrochemical Properties of Alkali-treated Sodium Titanate Nanorods	7
<i>M. Kim, G. Choi, D. Yoo, K. Lee</i>	
Chemically Robust Phthalocyanines: Photosensitizer and Electron Shuttle in Solid State Dye Sensitized Solar Cells	13
<i>P. Dwyer, R. Valk, S. Kelty</i>	
Synthesis and Characterization of a Methanofullerene-4-Fluoro-a-Cyanostilbene Dyad as a Potential Acceptor for Organic Solar Cells	20
<i>V. Neti</i>	
Size-Controlled Microwave-Assisted Synthesis of Water-Dispersible Cd(Se,S) Quantum Dots for Potential Biological Applications	26
<i>E. Calderon-Ortiz, S. Bailon-Ruiz, L. Alamo-Nole, J. Rodriguez-Orengo, O. Perales-Perez</i>	
Li-Doped ZnO Nanoparticles as Novel Direct Generator of Singlet Oxygen for Potential Photodynamic Therapy Applications	32
<i>M. Julca, I. Rivera, O. Perales-Perez, S. Bailon, M. Perez</i>	
Synthesis and Nanostructure Control of CIGS Nanoparticles by Solvothermal Route	38
<i>L. Zhang, L. Dong</i>	
Cu₂SnS₃ Inorganic-Organic Hybrid Structures for Photovoltaic Applications	44
<i>S. Dias, S. Krupanidhi</i>	
Intragap States Induced Visible Light Absorption of TiO₂ Nanoparticles: En Route to Solar Fuel Production	50
<i>H. Yaghoubi, T. Casey, U. Twahir, A. Angerhofer, G. Fanucci, Z. Li, R. Schlaf, A. Takshi</i>	
Mitigation of Surface Aggregation in Modified Phthalocyanines as Potential Photo Sensitizers	56
<i>R. Valk, P. Dwyer, S. Kelty</i>	
Indium Antimonide Nanoparticles Synthesized using Inert Gas Condensation Technique	62
<i>S. Pandya, M. Kordesch</i>	
Conjugated porous Polymers as Highly Efficient Heterogeneous Visible Light Photocatalyst	67
<i>Z. Wang, K. Landfester, K. Zhang</i>	
Author Index	