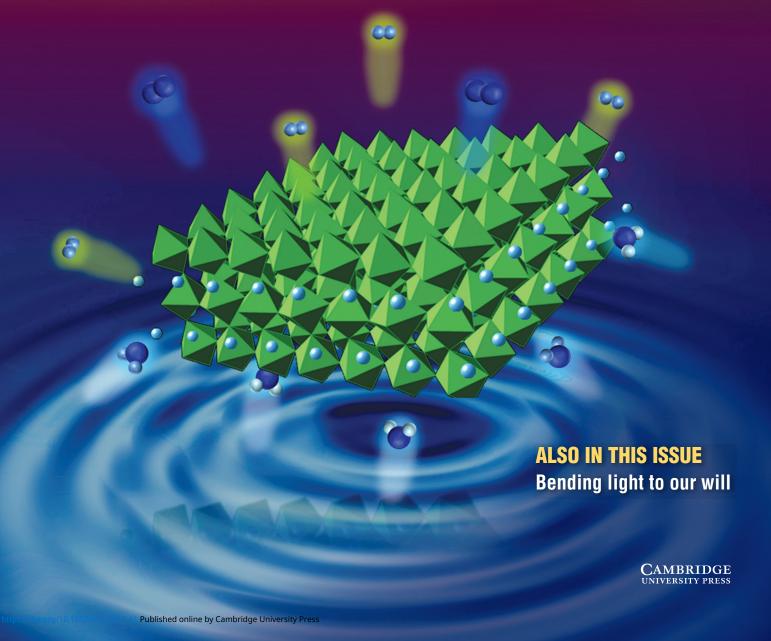
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# Recent developments in solar water-splitting photocatalysis



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# CONTENTS

# RECENT DEVELOPMENTS IN SOLAR WATER-SPLITTING PHOTOCATALYSIS



17 Recent developments in solar water-splitting photocatalysis

> Frank E. Osterloh and Bruce A. Parkinson, Guest Editors

23 Meet Our Authors



25 Oxynitride materials for solar water splitting

Kazuhiko Maeda and Kazunari Domen



Z-scheme photocatalyst systems for water splitting under visible light irradiation





Fast and efficient molecular electrocatalysts for H<sub>2</sub> production: Using hydrogenase enzymes as guides

Jenny Y. Yang, R. Morris Bullock, M. Rakowski DuBois, and Daniel L. DuBois



Metal oxide nanomaterials for solar hydrogen generation from photoelectrochemical water splitting Jin Zhong Zhang

#### **TECHNICAL FEATURE**



Bending light to our will 2010 Fred Kavli Distinguished Lectureship in Nanoscience presentation Harry Atwater

#### **DEPARTMENTS**



#### OPINION

5 Letter from the President Changing the way we do business Jim De Yoreo



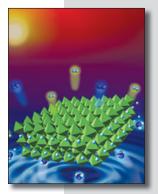
### NEWS & ANALYSIS

#### 9 Research/Researchers

- SnO<sub>2</sub> nanowire lithiation in a TEM viewed in real time Ashley Predith
- Individual quantum dots immobilized and positioned at the nanoscale
   Tobias Lockwood
- PV composites with enriched semiconducting SWNTs display prolonged charge separation
   Steven Trohalaki
- Magnets used to tune supercooled gallium arsenide semiconductors

#### 12 Science Policy

- NRC report shows materials opportunities at the forefront of corrosion science
   Kendra Redmond
- UNESCO releases report on the current status of science worldwide



#### ON THE COVER

Recent developments in solar watersplitting photocatalysis. This issue of MRS Bulletin focuses on the principles of solar water splitting and highlights recent developments with semiconductor light absorbers and co-catalysts. The cover image conceptually represents the process of converting water to H2 and O2 molecules with solar energy driving a metal oxide photocatalyst. For high efficiency, the catalyst needs to absorb visible light, generate electron-hole-pairs of sufficient energy, and provide reaction sites for water electrolysis at low overpotential. Materials that combine all of these characteristics and that remain chemically stable over long periods of time do not exist today. The graphic was created by Erwin Sabio, Department of Chemistry, University of California, Davis. See the technical theme that begins on p. 17.



www.mrs.org/bulletin

#### FEATURES .....

14 Beyond the Lab

Develop and follow your own passion, William D. Nix

80 Posterminaries

Coincidence or hidden connections? Bob Fleischer



#### 63 SOCIETY NEWS

- De Yoreo leads MRS Board of Directors for 2011
- Abernathy, Braun, Kawasaki, and Wahl to chair 2011 **MRS Fall Meeting**
- MRS Bulletin volume organizers guide technical theme topics for 2012
- MAKING STUFF premieres in January on PBS
- Collaborative Conference on 3D & Materials Research to be held in 2011
- 10th International Conference on Materials Chemistry to be held in July 2011
- Calendar

70	CAREER	CENTRAL	
/3	(ARFFR	CENTRAL	

DVERTISERS IN THIS ISSUE	Page No.
Advanced Film Services	38
American Elements	Outside back cover
High Voltage Engineering	Inside front cover
Janis Research Company, Inc	38
National Electrostatics Corp	24
SVC TechCon 2011	72
ULVAC Technologies, Inc	55
J.A. Woollam Company, Inc	Inside back cover

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The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across the many technical fields touching materials development. MRS sponsors two major international annual meetings encompassing approximately 70 topical symposia, and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence and fosters technical interaction in local geographic regions through Sections and University Chapters.

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