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# MRS Bulletin

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*Advancing materials. Improving the quality of life.*

## New materials for post-Si computing

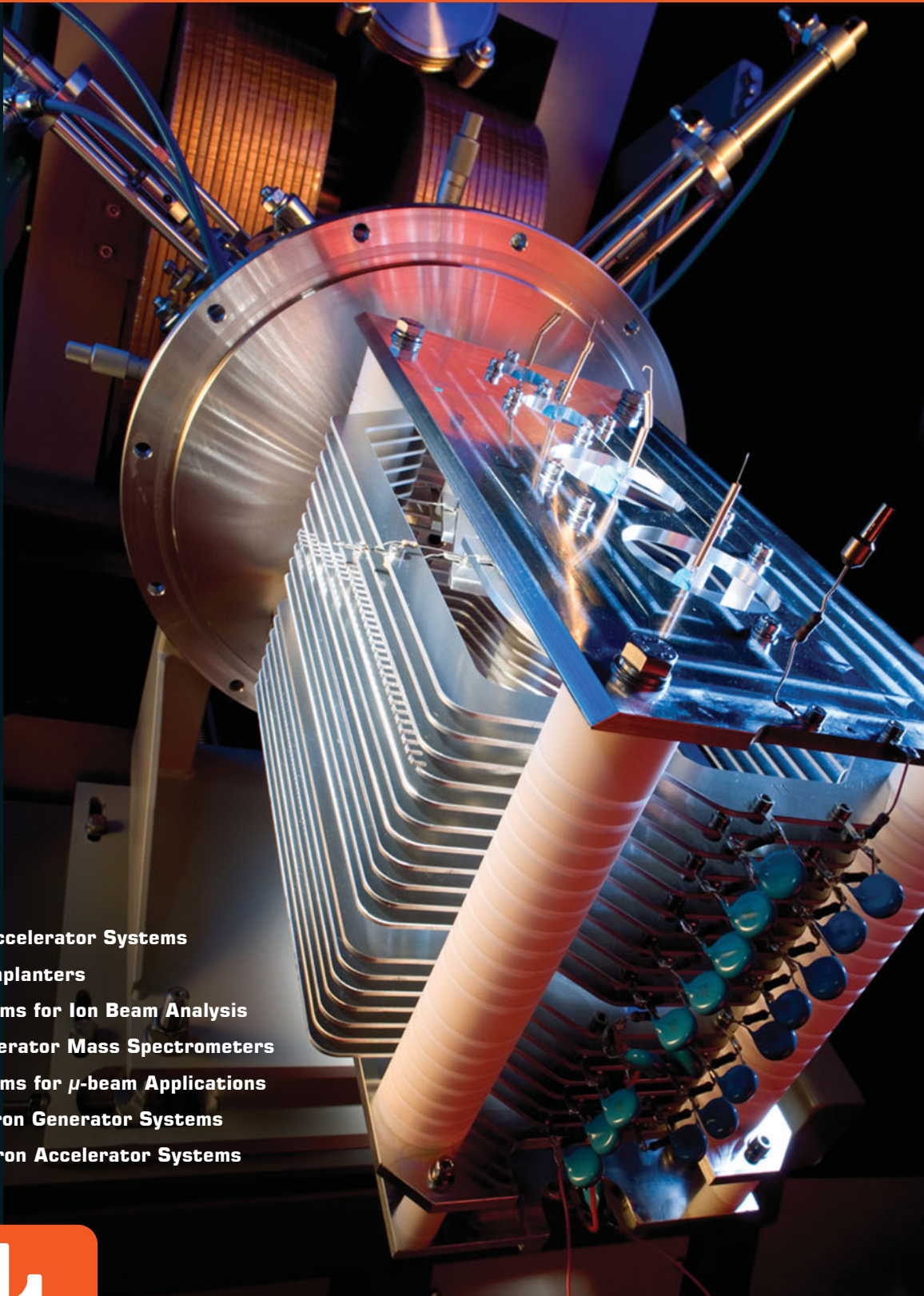
### ALSO IN THIS ISSUE

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for catalytic applications

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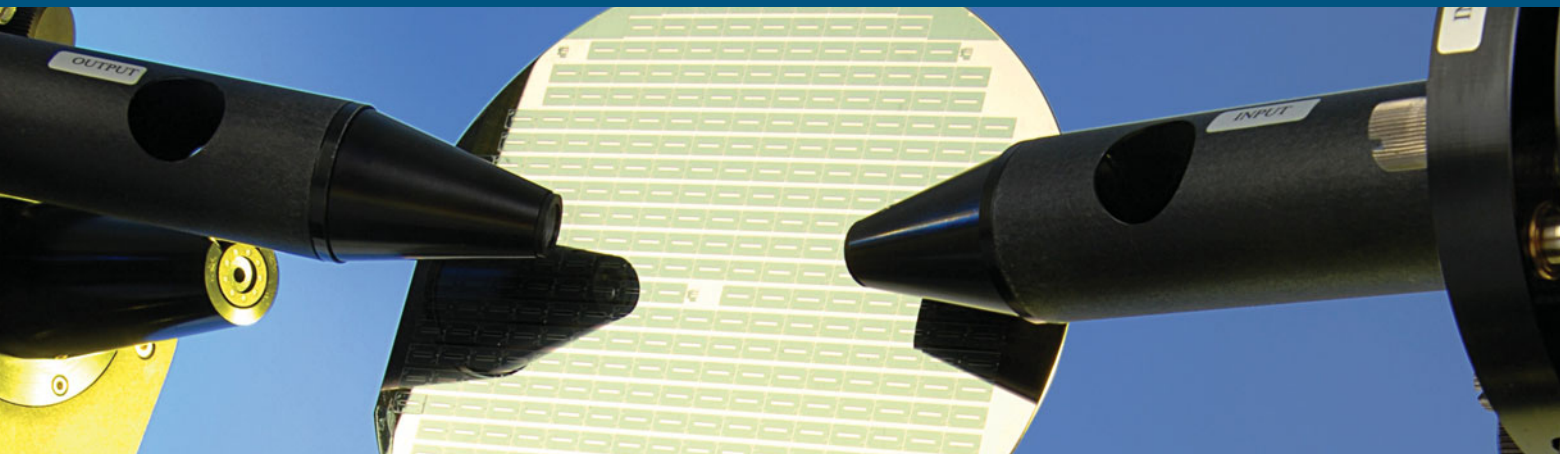
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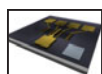
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# CONTENTS

## NEW MATERIALS FOR POST-SI COMPUTING



- 658 **New materials for post-Si computing**  
C.W. Liu, M. Östling, and J.B. Hannon, Guest Editors

663 **Meet Our Authors**



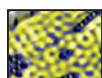
- 668 **III-V compound semiconductor transistors—  
from planar to nanowire structures**  
Heike Riel, Lars-Erik Wernersson,  
Minghwei Hong, and Jesús A. del Alamo



- 678 **New materials for post-Si computing:  
Ge and GeSn devices**  
Suyog Gupta, Xiao Gong, Rui Zhang, Yee-Chia Yeo,  
Shinichi Takagi, and Krishna C. Saraswat



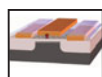
- 687 **Scaling computation with silicon photonics**  
Lionel C. Kimerling, Dim-Lee Kwong,  
and Kazumi Wada



- 696 **Computing with spins and magnets**  
Behdash Behin-Aein, Jian-Ping Wang,  
and Roland Wiesendanger



- 703 **Phase change materials and phase change  
memory**  
Simone Raoux, Feng Xiong, Matthias Wuttig,  
and Eric Pop

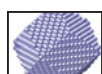


- 711 **Two-dimensional materials for electronic  
applications**  
Max C. Lemme, Lain-Jong Li, Tomás Palacios,  
and Frank Schwierz



- 719 **Carbon nanotubes for high-performance logic**  
Zhihong Chen, H.-S. Philip Wong,  
Subhasish Mitra, Ageeth Bol, Lianmao Peng,  
Gage Hills, and Nick Thissen

## TECHNICAL FEATURE

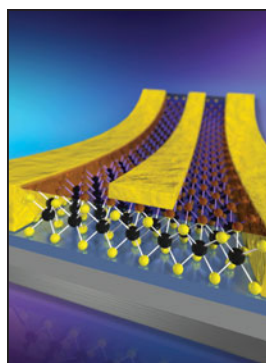


- 727 **Shape-controlled metal nanocrystals for  
catalytic applications**

**2013 Fred Kavli Distinguished Lectureship  
in Nanoscience**

Presented by Younan Xia

Aleksey Ruditskiy, Sang-II Choi, Hsin-Chieh Peng,  
and Younan Xia



### ON THE COVER

**New materials for post-Si computing.** Fundamental materials limitations are making traditional scaling of Si technology problematic in electronics. Continued performance improvements necessitate new materials, new device geometries, and new switching concepts. This issue of *MRS Bulletin* covers a range of emerging technologies for computation, communication, and storage and focuses on the need for new

materials beyond silicon to achieve continued performance gains in electronic computing. The cover shows a schematic representation of a field-effect transistor with a transition metal dichalcogenide channel. The black spheres represent molybdenum, and the yellow spheres represent sulfur. Image courtesy of Stefan Wagner, University of Siegen. See the technical theme that begins on **page 658**.



## DEPARTMENTS



### NEWS & ANALYSIS

#### 653 **Materials News**

- **Rock-salt LiBH<sub>4</sub> phase solid electrolyte shows enhanced Li<sup>+</sup> conduction**  
Jen Gordon
- **Breaking the 10-nm grain size barrier in ultrahard metals**  
Dirk Wouters
- **Nonlinear optical microscopy enables noninvasive quality control of tissue-engineered devices**  
Laurel Hamers
- **Smart morphable surfaces can dimple at will**

#### 656 **Science Policy**

- **STEM mentoring initiative moves forward**  
Jennifer A. Nekuda Malik
- **German Research Foundation approves collaborative research center for soft-matter simulations**



### FEATURES

#### 747 **Books**

- **The Physics of Deformation and Fracture of Polymers**  
Ali S. Argon  
Reviewed by SuPing Lyu
- **Bionanomaterials for Dental Applications**  
Mieczyslaw Jurczyk, Editor  
Reviewed by Walid M. Daoush
- **Electronic Structure of Materials**  
Rajendra Prasad  
Reviewed by Jianguo Lu

#### 752 **Image Gallery** **Look Again**



### 740 SOCIETY NEWS

- **Braun, Fan, Haenen, Stanciu, and Theil to chair 2015 MRS Spring Meeting**
- **Balk, Devanathan, Malliaras, Nagahara, and Torsi to chair 2015 MRS Fall Meeting**
- **Congressional Fellows bring science to US government**
- **SBPMAT 2014 to be held September 28–October 2 in Brazil**
- **E-MRS 2014 Fall Meeting to be held in September in Poland**



### 749 CAREER CENTRAL

#### ADVERTISERS IN THIS ISSUE

Page No.

American Elements .....	Outside back cover
Craic Technologies, Inc.....	726
High Voltage Engineering.....	Inside front cover
Hindawi Publishing Corporation.....	Inside back cover
J.A. Woollam Company, Inc.....	649
Janis Research Company, Inc.....	686
National Electrostatics Corp.....	662



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The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across many scientific and technical fields touching materials development. MRS conducts three major international annual meetings encompassing approximately 125 topical symposia, and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence and fosters technical interaction through University Chapters. In the international arena, MRS implements bilateral projects with partner organizations to benefit the worldwide materials community. The Materials Research Society Foundation helps the Society advance its mission by supporting various projects and initiatives.

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