

# MRS Bulletin

October 2018 Vol. 43 No. 10  
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**MRS** MATERIALS RESEARCH SOCIETY®  
*Advancing materials. Improving the quality of life.*

## Frontiers of solid-state batteries

### ALSO IN THIS ISSUE

Thermal conductivity  
measurement by  
time-domain  
thermoreflectance

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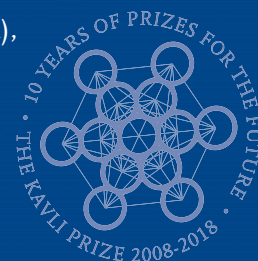
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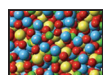
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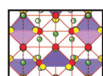


# CONTENTS

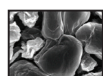
## FRONTIERS OF SOLID-STATE BATTERIES



- 740 **Frontiers of solid-state batteries**  
Jagjit Nanda, Chongmin Wang, and Ping Liu,  
Guest Editors



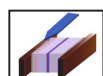
- 746 **Predictive modeling and design rules for solid electrolytes**  
Gerbrand Ceder, Shyue Ping Ong, and Yan Wang



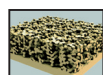
- 752 **Approaches toward lithium metal stabilization**  
Nancy J. Dudney



- 759 **Polymer and composite electrolytes**  
Daniel T. Hallinan Jr., Irune Villaluenga, and  
Nitash P. Balsara



- 768 **In situ and operando probing of solid–solid interfaces in electrochemical devices**  
T.A. Wynn, J.Z. Lee, A. Banerjee, and Y.S. Meng



- 775 **Architectural design and fabrication approaches for solid-state batteries**  
Fang Hao, Fudong Han, Yanliang Liang,  
Chunsheng Wang, and Yan Yao

## TECHNICAL FEATURE



- 782 **Thermal-conductivity measurement by time-domain thermoreflectance**  
2018 MRS Spring Meeting  
Materials Characterization Award presentation  
David G. Cahill

## DEPARTMENTS



### 725 OPINION

#### Material Matters

- Creating a culture that values safety**  
Humaira Taz



### NEWS & ANALYSIS

#### 727 Materials News

- **Experiments confirm predicted high thermal conductivity of boron arsenide**  
Melissae Fellet
- **Na-K alloy electrode and K-β<sup>+</sup>-alumina electrolyte unlock high-voltage flow batteries**  
Tianyu Liu
- **Optical gain achieved in Nd-doped alumina**  
Kendra Redmond
- **White Paper: Printable graphene inks stabilized with cellulosic polymers**  
Woo Jin Hyun, Ethan B. Secor, and Mark C. Hersam

#### 734 Science Policy

- **“Science Debate” questions US political candidates on science policy**  
Jennifer A. Nekuda Malik
- **EC proposes €100 billion for research and innovation**

#### 738 Public Affairs Forum

- A guide to science advocacy**  
Kevin J. Whittlesey



790 SOCIETY NEWS

- Preview: 2018 Materials Research Society Fall Meeting & Exhibit

Profiles

- Dawnielle Farrar-Gaines: Engineer, professor, and advocate of interdisciplinary work**  
Rahul Rao
- In memoriam: Thomas R. Anthony**  
R. Alben, G.S. Cargill III, and F. Spaepen
- Adaptation and Evolution of Biological Materials Symposium to be held January 5**
- MRS Communications Abstracts**

FEATURES

801 Book Reviews

- Optical 3D-Spectroscopy for Astronomy**  
Roland Bacon and Guy Monnet  
Reviewed by Anthony Stender
- Functional Glasses and Glass-Ceramics: Processing, Properties, and Applications**  
Basudeb Karmakar  
Reviewed by Adriano Michael Bernardin
- Self-Healing Materials: Principles and Technology**  
George Wypych  
Reviewed by Karen Swider Lyons

808 Image Gallery  
Look Again

803 CAREER CENTRAL

ADVERTISERS IN THIS ISSUE

Page No.

American Elements .....	Outside back cover
Angstrom Engineering Inc. ....	Inside back cover
High Voltage Engineering .....	Inside front cover
Kavli Foundation .....	721
Lake Shore Cryotronics, Inc. ....	737
MilliporeSigma .....	733



ON THE COVER

**Frontiers of solid-state batteries.** This issue of *MRS Bulletin* focuses on the current state of the art of solid-state batteries, especially electrolytes and device architectures, and provides perspective on the various materials and interfacial challenges that limit performance and stability. The cover shows a schematic of a cathode composite. The use of mechanical milling to form finer submicrometer particles allows for a larger contact area between a solid electrolyte, active sulfur, and conductive carbon. This creates effective ion- and electron-transport pathways. The green circles are sulfur; the gray circles are solid electrolytes; and the black circles are carbon. The red arrows show the electron transport, while the blue arrows show the Li-ion transport. Credit: Hyung Lim, Kangwon National University. See the technical theme that begins on page 740.



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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 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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