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September 2019 • Vol. 98 No. 7

## feature articles



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### Announcing ACerS Awards of 2019

The Society will honor members and corporations at the Awards Banquet of the 121<sup>st</sup> Annual Meeting in October to recognize significant contributions to the engineered ceramic and glass field.



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### Solid-state batteries: Unlocking lithium's potential with ceramic solid electrolytes

Recent progress indicates that ceramic materials may soon supplant liquid electrolytes in batteries, offering improved energy capacity and safety.

by Nathan J. Taylor and Jeff Sakamoto



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### How can you participate in ceramics and glass education outreach?

Education outreach shares the magic of ceramic and glass materials with the next generation—and everyone can find a way to participate.

by David W. Richerson



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### Inspire the next generation through CGIF programs

The Ceramic and Glass Industry Foundation offers a number of outreach programs to inspire the next generation of ceramic and glass scientists and engineers—and there are a number of ways you can get involved!

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As seen on Ceramic Tech Today...



Credit: Pixabay

**Fluoride strengthens both teeth and solar cells**

Researchers in the Netherlands and China found adding fluoride to perovskite solar cells helps stabilize the material's structure, much like fluoride in toothpaste protects tooth enamel from decay.

Read more at [www.ceramics.org/fluoride](http://www.ceramics.org/fluoride)

Also see our ACerS journals...

**Pressureless all-solid-state sodium-ion battery consisting of sodium iron pyrophosphate glass-ceramic cathode and  $\beta$ "-alumina solid electrolyte composite**

By H. Yamauchi, J. Ikejiri, F. Sato, et al.  
*Journal of the American Ceramic Society*

**Life cycle assessment of functional materials and devices: opportunities, challenges and current and future trends**

By L. Smith, T. Ibn Mohammed, S.C. Koh, and I.M. Reaney  
*Journal of the American Ceramic Society*

**Reactive flash sintering of powders of four constituents into a single phase of a complex oxide in a few seconds below 700°C**

By V. Avila and R. Raj  
*Journal of the American Ceramic Society*

**Charge compensation mechanisms in Li-substituted high-entropy oxides and influence on Li superionic conductivity**

By N. Oseniat, D. Bérardan, D. Dragoe, et al.  
*Journal of the American Ceramic Society*



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