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## feature articles



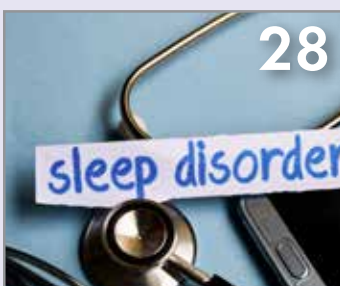
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### Tissue engineering and additively manufactured ceramic-based biomaterials: Addressing real-world needs with effective and practical materials technologies

*Medicine and materials converge for new approaches to tissue engineering and regenerative medicine.*

by Adam E. Jakus



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### Isoprene sensor/breathalyzer for monitoring sleep disorders

*Detecting and correctly diagnosing sleep disorders improves people's lives and health. An isoprene sensor/breathalyzer offers one potential way to accurately detect sleep disorders.*

by P. I. Gouma



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### Bubbles—a glass-ceramic plague

*Understanding the mechanism behind bubble formation in glass-ceramics can lead to the creation of bubble-free glass. An experimental "bubble map" could help increase understanding.*

by Oscar Peitl and Edgar D. Zanotto

## A message from the editor

As we go to press, news reached us that *Ceramic Industry* magazine will end publication with its May issue—a decision driven by the realities of changing business models for media outlets. The *CI* website will remain active through 2019.

*Ceramic Industry*, a BNP Media publication, has been a recognized voice for the industry for over 50 years. *CI* is not connected to The American Ceramic Society; however, many of our members and *ACerS Bulletin* readers also read it and know that *CI* has supported the Society by reporting on important conferences and events such as the International Conference on Advanced Ceramics and Composites, MS&T, and, of course, Ceramics Expo.

The Society acknowledges all that *CI* and its staff have done over many decades to advance the ceramic and glass industry, and the leadership of its editor, Susan Sutton. We wish their staff all the best.

Eileen De Guire  
Editor

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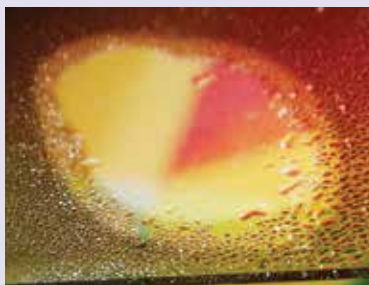


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### As seen on Ceramic Tech Today...



Credit: Christopher Walker, ETH Zurich

### Video: Search for an ideal anti-fog coating "heats" up the competition

ETH Zurich researchers developed an anti-fog coating that works by absorbing sunlight and generating heat rather than being hydrophilic, like other common anti-fog sprays. The researchers are collaborating with an industry partner to bring their coating to market.

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

### Also see our ACerS journals...

The *International Journal of Applied Ceramic Technology* (ACT) is a leading resource for the advancement of ceramic materials for use in health care. The recently released issue contains a large number of articles in this field and another issue dedicated to bioactive ceramics is coming soon to compliment the highly successful special issue published in 2018. Below are three recent articles highlighting global efforts published in ACT.

#### Porous alumina scaffolds chemically modified by calcium phosphate minerals and their application in bone grafts

By A.D.R. Silva, W.R. Rigoli, D.C.R. Mello, et al.

*International Journal of Applied Ceramic Technology*

#### Zirconium modified calcium-silicate-based nanoceramics: An in vivo evaluation in a rabbit tibial defect model

By A. Doostmohammadi, Z. Karimzadeh Esfahani, et al.

*International Journal of Applied Ceramic Technology*

#### A high-reliability alumina-platinum multilayer system for implantable medical devices

By A. Knudsen, H. Makino, K. Morioka, et al.

*International Journal of Applied Ceramic Technology*



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

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POSTMASTER: Please send address changes to American Ceramic Society Bulletin, 550 Polaris Parkway, Suite 510, Westerville, OH 43082-7045. Periodical postage paid at Westerville, Ohio, and additional mailing offices. Allow six weeks for address changes.

ACSBA7, Vol. 98, No. 4, pp 1 - 48. All feature articles are covered in Current Contents.