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feature articles



24 Smog begone! How development of ceramic automotive catalytic substrates and filters helped reduce air pollution

Ceramic-based mobile emissions control products have prevented billions of tons of hydrocarbons, nitrogen oxides, carbon monoxide, and particulates from entering the atmosphere—and researchers continue to innovate to make these products even better.

by Douglas M. Beall and Willard A. Cutler



32 Silicon nitride—A ceramic surgical implant material

Silicon nitride is used in many industries. For the health-care industry, it is a relatively new adoption—but one with a lot of potential.

by Don Bray and Bryan McEntire



No.2 — Ceramic & Glass Manufacturing

Breaking in: A guide to working with big business

Turn to page 41 and see what's inside!

- Industry news
- Trade shows
- How to break in: Small companies are fast and flexible
- One CEO's secrets to success



Cover image

Employee of Corning Inc. in a manufacturing facility.
Credit: Corning Inc.

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Editorial and Production

Eileen De Guire, Editor
edeguire@ceramics.org

Lisa McDonald, Associate Editor

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Customer Service/Circulation

ph: 866-721-3322 fx: 240-396-5637

customerservice@ceramics.org

Advertising Sales

National Sales

Mona Thiel, National Sales Director

mthiel@ceramics.org

ph: 614-794-5834 fx: 614-794-5822

Europe

Richard Rozelaar

media@alaincharles.com

ph: 44-(0)-20-7834-7676 fx: 44-(0)-20-7973-0076

Executive Staff

Mark Mecklenborg, Executive Director and Publisher

mmecklenborg@ceramics.org

Eileen De Guire, Director of Technical Publications and

Communications

edeguire@ceramics.org

Marcus Fish, Development Director

Ceramic and Glass Industry Foundation

mfish@ceramics.org

Michael Johnson, Director of Finance and Operations

mjohnson@ceramics.org

Mark Kibble, Director of Information Technology

mkibble@ceramics.org

Sue LaBute, Human Resources Manager & Exec. Assistant

slabute@ceramics.org

Andrea Ross, Director of Meetings and Marketing

aross@ceramics.org

Kevin Thompson, Director of Membership

kthompson@ceramics.org

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As seen on Ceramic Tech Today...



Credit: Zhang et al., *International Journal of Nanomedicine*
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Films fix flaws: MXenes for guided bone regeneration

A lot of research focuses on environmental and energy applications of MXenes, but there are plenty of potential biomedical applications as well. Three researchers at Sichuan University in China investigate using MXene films as a barrier membrane in guided bone regeneration.

Read more at www.ceramics.org/mxenefilms

Also see our ACerS journals...

Changes in fluoride removal ability of chicken bone char with changes in calcination time

By M. Kikuchi, Y. Arioka, M. Tafu, and M. Irie

International Journal of Ceramic Engineering & Science

Black ZrO₂ synthesized by molten lithium reduction strategy for photocatalytic hydrogen generation

By D. Zu, H. Wang, T. Yang, et al.

Journal of the American Ceramic Society

Permeability behavior of silicon carbide based membrane and performance study for oily wastewater treatment

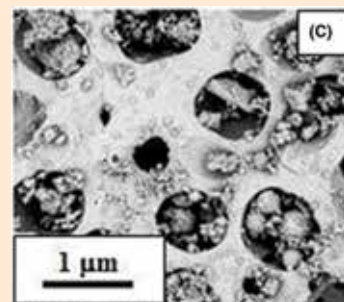
By D. Das, N. Kayal, G. A. Marsola, et al.

International Journal of Applied Ceramic Technology

Prospects of antibacterial bioactive glass nanofibers for wound healing: An in vitro study

By S. Saha, A. Bhattacharjee, S. H. Rahaman, et al.

International Journal of Applied Glass Science



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