

THE WORLD RESOURCE FOR CERAMICS AND GLASS TECHNOLOGY™

www.ceramicbulletin.org

\$7.50

October 2003

BULLETIN

AMERICAN
CERAMIC
SOCIETY

Vishay's New Thin Film Plant
Drexel's Nanotech Institute
Outlook for U.S. Refractories

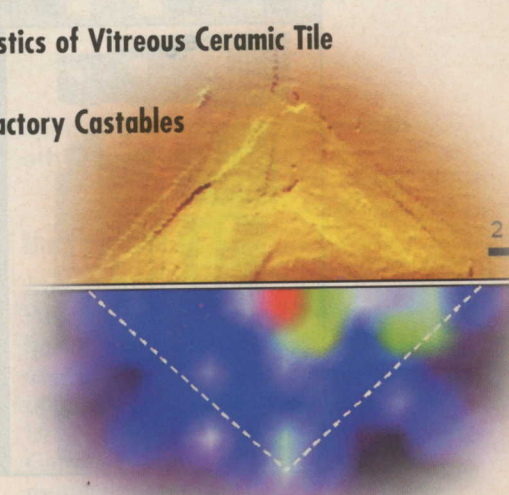
1060175 CB1 OCTOBER 2003 1/31/2004
CADOC (I852-ISA)
APPEL DU LIVRE - 3206
CDE 02/113 CLINET 6
105 RUE DE CHARENTON
PARIS 75012
FRANCE

CONTENTS

Volume 82, Number 10, October 2003

feature articles

- 9 **Feature Articles Online at www.ceramicbulletin.org**
 - How Abrasive Machining Affects Surface Characteristics of Vitreous Ceramic Tile
 - Effect of Synthetic Aggregate on Alumina Castables
 - PSD, Polymeric Fibers and the Permeability of Refractory Castables
 - Review of TCLP Extraction on Glassware
- 10 **Vishay Builds Advanced Thin Film Plant**
- 12 **Drexel Forms Nanotechnology Institute**
Katrin Cowan
- 14 **Outlook for U.S. Refractories**
The Freedonia Group Inc.
- 17 **High-Carbon-Content Refractory Castables**
I.R. Oliveira, R. Salomão, V.C. Pandolfelli and A.R. Studart
- 18 **The Refractories Industry—Worldwide and China**
Liu Jiehua and Zhou Ningsheng
- 19 **The Glass Researcher**
 - Looking Clearly to the Future Through Glass
Carlo G. Pantano
 - Glass Plays Critical Role in the Telecommunications Revolution
Thomas P. Seward III



drexel forms... Intensity Map

news

- 3 global news
- 4 nanonews
- 5 technology briefs
- 6 refractory hot line
- 7 envirotech
- 8 names in the news

products

- 31 product focus



global news...

ACerS news & activities

- 25 member news
- 27 president's letter
- 28 meet the candidates
- 30 calendar

departments

- 23 literature showcase
- 32 business services
- 40 career opportunities/classified ads
- 40 advertisers/editorial index

AMERICAN CERAMIC SOCIETY BULLETIN covers news and activities of the Society and its members, includes items of interest to the ceramic community, and provides the most current information concerning all aspects of ceramic technology, including research and development, manufacturing, engineering and marketing.

AMERICAN CERAMIC SOCIETY BULLETIN (ISSN No. 0002-7812). ©2003. PRINTED IN THE UNITED STATES OF AMERICA. THE BULLETIN IS PUBLISHED MONTHLY AS A "DUAL-MEDIA" MAGAZINE IN PRINT AND ELECTRONIC FORMAT (WWW.CERAMICBULLETIN.ORG). THE DECEMBER ISSUE IS PUBLISHED ONLINE ONLY.

EDITORIAL AND SUBSCRIPTION OFFICES: 735 CERAMIC PLACE, WESTERVILLE, OH 43081-8720. SUBSCRIPTION INCLUDED WITH AMERICAN CERAMIC SOCIETY MEMBERSHIP. NONMEMBER SUBSCRIPTION RATES: NORTH AMERICA, 1 YEAR \$50; INTERNATIONAL, 1 YEAR \$100. RATES INCLUDE SHIPPING CHARGES. INTERNATIONAL REMAIL SERVICE IS STANDARD OUTSIDE OF NORTH AMERICA. BACK ISSUES: MEMBER, \$6.00 PER ISSUE; NONMEMBER, \$7.50 PER ISSUE. POSTAGE/HANDLING FOR SINGLE/BACK ISSUES: NORTH AMERICA, \$3 FOR FIRST ISSUE AND \$1 FOR EACH ADDITIONAL ISSUE; OUTSIDE NORTH AMERICA, \$6 FOR FIRST ISSUE AND \$2 FOR EACH ADDITIONAL ISSUE.

POSTMASTER: PLEASE SEND ADDRESS CHANGES TO AMERICAN CERAMIC SOCIETY BULLETIN, P.O. BOX 6136, WESTERVILLE, OH 43086-6136. PERIODICAL POSTAGE PAID AT WESTERVILLE, OHIO, AND ADDITIONAL MAILING OFFICES. ALLOW SIX WEEKS FOR ADDRESS CHANGES.

ACSBA7, Vol. 82, No. 10, pp 1-48