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The *International Journal of Applied Ceramic Technology (ACT)* is a bi-monthly publication devoted to cutting edge, applied research and development work focused on the commercialization of engineered ceramics products and processes.

As one of the primary journals of the American Ceramic Society (ACerS), *ACT* enjoys a large and diverse readership that includes:

- Engineers, manufacturers, and research & development scientists
- Researchers at over 4,800 research libraries in more than 90 countries
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- All delegates of the International Cocoa Beach Conference & Exposition on Advanced Ceramics and Composites

## **AIMS & SCOPE**

The mission of *ACT* is to promote ceramics research that explores the barriers to commercialization, design and testing, environmental health issues, international standardization activities, databases, and cost models.

Designed to get high quality information to end-users quickly, the journal's peer review process is led by an editorial board of experts from industry, government, and academia. Papers on all aspects of applied ceramics are welcome including:

- **Ceramic Armor**
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Each issue of the *International Journal of Applied Ceramic Technology* focuses on a high-interest, high-impact topic. The following is a list of the topics of focus chosen for 2008:

- **Bioceramics**
- **Solid Oxide Fuel Cells**
- **Science & Technology of Si<sub>3</sub>N<sub>4</sub>**
- **Advanced Ceramics for Automotive Applications**
- **Ceramic Integration Technology**
- **Chemical Nanotechnology**

- **Ceramic Interconnect and Ceramic Microsystems Technologies**

### **CITATION INFORMATION**

The International Journal of Applied Ceramic Technology is ranked 1st amongst the 26 journals in the Material Science - Ceramics category in ISI Web of Knowledge<sub>SM</sub>.

### **IMPACT FACTOR = 1.663**

Cites in 2006 to articles published in:	2005 = 49	Number of articles published in:	2005 = 53
	2004 = 104		2004 = 39
	Sum: 153		Sum: 92
Calculation: $\frac{\text{Cites to recent articles}}{\text{Number of recent articles}}$	$\frac{153}{92} = 1.663$		

### **MOST CITED ARTICLES TO-DATE**

#### **Progress in the Synthesis of Nanocrystalline BaTiO<sub>3</sub> Powders for MLCC**

Christian Pithan, Detlev Hennings, and Rainer Waser

Issue 2:1, 2005

#### **Merging Biological Self-Assembly with Synthetic Chemical Tailoring: The Potential for 3-D Genetically Engineered Micro/Nano-Devices (3-D GEMS)**

Kenneth H. Sandhage, Shawn M. Allan, Matthew B. Dickerson, Christopher S. Gaddis, Samuel Shian, Michael R. Weatherspoon, Ye Cai, Gul Ahmad, Michael S. Haluska, Robert L. Snyder, Raymond R. Unocic, Frank M. Zalar, Yunshu Zhang, Robert A. Rapp, Mark Hildebrand and Brian P. Palenik

Issue 2:4, 2005

#### **Progress in Processing and Performance of Porous-Matrix Oxide/Oxide Composites**

Reinhard A. Simon

Issue 2:2, 2005

#### **A Global Approach to Fiber nD Architectures and Self-Sealing Matrices: From Research to Production**

F. A. Christin

Issue 2:2, 2005

#### **Oxidation Microstructures and Interfaces in the Oxidized Zirconium Knee**

Linn W. Hobbs, Valarie Benezra Rosen, Stephan P. Mangin, Meri Treska and Gordon Hunter

Issue 2:3, 2005

**Effects of Combustor Rig Exposure on a Porous-Matrix Oxide Composite**

Michael A. Mattoni, James Y. Yang, Carlos G. Levi, Frank W. Zok and Larry P. Zawada  
Issue 2:2, 2005

**Evaluation of Oxide–Oxide Composites in a Novel Combustor Wall Application**

Triplicane A. Parthasarathy, Larry P. Zawada, Reji John, Michael K. Cinibulk, Ronald J. Kerans and Joseph Zelina  
Issue 2:2, 2005

**Evolution of Surface Morphology in Laser-Dressed Alumina Grinding Wheel Material**

Sandip P. Harimkar and Narendra B. Dahotre  
Issue 3:5, 2006

**Crystal Phase and Orientation Control in Integrated Ferroelectric  $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$  Using a Tailored Liquid of Alkoxides**

Kazumi Kato, Desheng Fu, Kiyotaka Tanaka, Kazuyuki Suzuki, Tatsuo Kimura, Kaori Nishizawa, and Takeshi Miki  
Issue 2:1, 2005

**Layered Piezoelectric Ceramics for Fine-Tolerance Resonator Applications**

Akira Ando, Masahiko Kimura, Tadahiro Minamikawa, and Yukio Sakabe  
Issue 2:1, 2005

## **AUTHOR GUIDELINES**

Papers published in the *International Journal of Applied Ceramic Technology* include both invited and unsolicited manuscripts. All submissions are thoroughly reviewed by two or more selected reviewers and at least one Associate Editor. Final accepted papers are available online within 6 months of submission and published in print shortly thereafter.

## **ARTICLE SUBMISSION SPECIFICATIONS**

Manuscripts should not exceed 7,250 words and must be accompanied by a cover letter. Contact information for the corresponding author that includes an e-mail address, fax number, and telephone number must be provided with all submissions.

All manuscripts must be submitted as electronic files. All text (including the abstract, references, and figure captions) should be double-spaced and formatted to print on 8 1/2 in. x 11 in. (approximately 22 cm x 28 cm) paper with left and right margins of at least 1 inch (approximately 2.5 cm) each.

**Please refer to the journal homepage for more information about the *International Journal of Applied Ceramic Technology*: <http://www.blackwellpublishing.com/ACT>**

## **SUBMIT ONLINE**

All authors should submit manuscripts for consideration to Manuscript Central, the journal's online peer-review system at: <http://mc.manuscriptcentral.com/ACT>.

## **SUBMITTING A MANUSCRIPT FOR REVIEW**

Papers published in *International Journal of Applied Ceramic Technology* include both invited and unsolicited manuscripts. Authors must submit cover letters with their manuscripts. Contact information for the corresponding author, including an e-mail address, fax number, and telephone number, must be provided with all submissions. If one of the Associate Editors invites you to make a submission, please note this in your cover letter and identify the topical issue for which the manuscripts should be considered.

All manuscripts must be submitted as electronic files. Text should be in double-spaced format, including the abstract, references, and figure captions. They should be formatted to print on 8 1/2 in. x 11 in. (approximately 22 cm x 28 cm) paper with left and right margins of at least 1 inch (approximately 2.5 cm) each.

Your manuscript will be thoroughly reviewed by two or more selected reviewers plus at least one Associate Editor. An Associate Editor will contact you via e-mail with required

and recommended changes that must be made prior to submitting a final manuscript for publication.

## **MANUSCRIPT LENGTH**

*International Journal of Applied Ceramic Technology* will be published in a two-column format with a trim size of approximately 7.5 inches by 10.375 inches (approximately 19 cm by 26 cm). Articles will be no longer than 7,250 words (eight pages). Note that each average-sized (7.6 cm wide by 8.0 cm deep) micrograph, line drawing, or table is equivalent to about 200 words.

## **SUBMITTING AN APPROVED MANUSCRIPT FOR PUBLICATION**

Authors must submit final manuscripts in Manuscript Central. Guidelines for file formats are shown below; authors are advised to follow these guidelines to avoid publication delays and be assured of the best possible figure quality.

File Formats:

Text: Microsoft Word is strongly preferred. WordPerfect, PostScript, RTF, ASCII can be used.

Graphics: All figures and art must be submitted in either a TIFF or EPS format.

Resolution of graphics files must be at least 300 dpi for halftones, 600 dpi for lettering, and 1200 dpi for line art.

Equations: Use Microsoft Word's equation editor [Insert, Object] or MathType to prepare equations.

Copyright Form:

The author must complete the copyright form and return it to Blackwell Publishing as soon as possible. A paper cannot be published until the completed form is received.

## **PUBLISHING**

The publisher of the *International Journal of Applied Ceramic Technology*, Wiley-Blackwell, will copyedit your manuscript, send it for composition, and proofread it. When page proofs are available, proofs will be e-mailed to you for a final review. Because of tight deadlines, respond within the time indicated: if no response is received, your paper will be processed as if you approved it.

## **DEADLINES**

The *International Journal of Applied Ceramic Technology* is scheduled for publication six times yearly. Articles must be submitted for review at least 6 months prior to the publication date and final articles must be submitted at least 3 months prior to the publication date.

## **FORMATTING REQUIREMENTS**

(1) **Title:** The title should be both brief and descriptive. Introductory words, such as "On," "Observations on," "Some," and "Study of" are to be avoided. For indexing purposes, chemical names rather than formulas are preferred in titles.

(2) **Authors' Names and Affiliations:** Authors' first and last names should be provided. International Journal of Applied Ceramic Technology, as is customary in the United States, displays the full names of authors in the following order: given name, middle name or initial, family name. This applies to names from all sources, regardless of cultural practices that follow other rules.

Include affiliations of the authors at the time the work was performed along with the institution and department names (if applicable), city, state/ prefecture/province, postal code, and country (if not United States). Do not include local address information, such as street name, on the manuscript; however, this information should be included in the online submission form or cover letter.

(3) **Abstract:** An abstract of no more than 100 words must be provided with each paper. Preferably, the abstract will be of the informative type, presenting a condensed version of the information in the paper. The abstract should briefly state the purpose of the research, new or unusual techniques used in the experimental procedure, and significant results. No footnotes or references may appear in the abstract.

(4) **Text Sections:** Text of each paper should be divided into three or more sections.

Typical section titles are:

Introduction

Experimental Procedure

Results

Discussion

Conclusions (or Summary) Background and context of a paper should be presented in an Introduction, and the main points of the paper should be reiterated in the Conclusions or Summary section. Sections can be divided into two or more subsections. The titles of subsections should be brief, and the subsections should reflect an organized breakdown of the section subject.

(5) **Acknowledgment and Support:** If the author wishes to acknowledge non-financial support (e.g., donation of materials or use of laboratory equipment), a brief Acknowledgment section may be presented immediately preceding the Reference section. However, the source of financial support for the work represented by a paper should appear in a footnote at the beginning of the article.

(6) **Footnotes:** Several categories of information should be presented as footnotes in a paper. These categories include:

(a) Notice that the paper was presented in part or in whole at a technical meeting. The footnote should be presented in the following style: "Presented at the 27th Annual International Conference on Advanced Ceramics and Composites, Cocoa Beach, FL,

January 27<sup>th</sup>, 2003." (b) Information regarding the source of financial support for the research work. The footnote should be presented in the following style: "Supported by the Basic Energy Sciences Division, U.S. Department of Energy, under Grant No. DE-AC0240ER1 159." (c) Membership in The American Ceramic Society. (d) An author's current or permanent affiliation if different from that shown in the affiliation information at the beginning of the paper.

(7) **Manufacturers:** Manufacturer-specific information regarding materials or equipment used in the work should be included in parentheses following the generic name for the material or equipment, for example, ". . . microscope (Model 123, Wabash Instruments, Center City, IN)."

(8) **References:** References should follow the text and be listed in the order in which they appear. References to periodical papers must include authors' names, paper title, periodical title, volume number, page range, and year of publication. Book references should include authors' names, chapter/ section title, page range, book title, editors' names, publisher's name and location, and year of publication. Papers from proceedings should include location and date of relevant meeting, as well as name and location of publisher and year of publication. Non-English titles of books should include the English translation of the title, in parentheses, following the non-English title. Titles of periodicals should be abbreviated in accordance with the Chemical Abstracts Service Source Index (CASSI). Formats of typical references are as follows:

<sup>1</sup> G. W. Scherer, "Theory of Drying," *J. Am. Ceram. Soc.*, 73 [11] 3-14

<sup>2</sup> (1990). H. R. Baumgartner and B. R. Rassing, "Sintering and Properties of Plasma Synthesized SiC Powder"; pp. 3-16 in *Ceramic Transactions, Vol. 2, Silicon Carbide '87*. Edited by J. D. Cawley and C. F. Semler. American Ceramic Society, Westerville, OH, 1989.

(9) **Tables:** Tables should be attached at the end of the manuscript. The title should be as concise as possible, similar to a section title; explanatory information should be presented as table footnotes. Column headings also should be concise, but understandable. Units of measurements, where applicable, should be presented as SI units in parentheses. An example of a table in *International Journal of Applied Ceramic Technology* format is shown as Table I. Note that you will need to have Internet access in order to view this table and other figures and tables referenced in this document.

(10) **Figure Captions:** Captions of all figures should be grouped in a single list after the Reference section. The captions should be formatted double-spaced. This grouping of captions is in addition to the presentation of each individual caption with its appropriate figure.

(11) **Figures:** Each figure submitted must be clearly identified with a figure number and caption. It is best to prepare and submit graphics in the final size that they will appear on the typeset page. Spelling in figures should be checked carefully, because figures are not normally corrected or redrawn before publication. As in text, only SI units of

measurement should be used. If a figure has been taken directly from another published source, the author must obtain written permission to reprint from the original publisher. This permission should be forwarded with the article being submitted for publication, and the source of the figure should be cited as a reference in the figure caption. If the author has modified the original figure in any significant way, no permission to reprint is required. However, the reference to the published paper containing the source figure should be cited at the end of the figure caption in the form "(After Smith and Jones. <sup>8</sup>)." Micrographs usually will be sized to approximately 7.6 cm in width. Micrographs are submitted and published in black and white. Magnification indicators, e.g., "1000X", must not be used, because micrographs are typically reduced before publication. Instead, scale bars should be used. (See Fig. 1.) Line drawings should be drawn boldly to ensure clear reproduction. Lettering within each figure should be sized with a regard to its appearance when the drawing is reduced for publication. Keep symbols, lines, and type at uniform density and size so that all will be legible if reduced to fit column width. Graphics: All figures and art must be submitted in either a TIFF or EPS format. Resolution of graphics files must be at least 300 dpi for halftones, 600 dpi for lettering, and 1200 dpi for line art.

## **STYLE**

(1) **General:** Authors are expected to follow generally accepted rules of grammar and punctuation and to use American spelling (e.g., center and color, not centre and colour). Jargon and slang should be avoided because International Journal of Applied Ceramic Technology readership comprises many cultures and backgrounds. Abbreviations may be used, but they must be defined the first time they are used. Terminology should be used consistently. Either a formula or a chemical name can be used for a substance, but it should be used throughout the paper.

(2) **SI Units:** The Society insists on the use of metric units of measurement, specifically SI units, in the International Journal of Applied Ceramic Technology. English or other nonmetric units may appear in a paper, but they should appear only in parentheses following the SI units, e.g., 32 mm (1.25 in.). The primary acceptable SI units are the base units, supplemental units, and derived units. (See Tables II and III, Table IV.) In addition, certain units not part of SI are so widely used that it is impractical to abandon them. These exceptions (Table V) are permitted, although SI equivalents are preferred whenever possible. Other non-SI units are not permitted as primary measurements: these include calorie, degree Fahrenheit, dyne, gauss, inch, oersted, poise, pounds per square inch, and torr. If these non-SI units are included in a paper, they should appear only in parentheses following the SI units. An excellent guide to the use of SI units is the ASTM Standard for Metric Practice, E 380-86.

6 International Journal of Applied Ceramic Technology Author Guidelines – January, 2005

(3) **Mathematical Expressions:** Mathematical expressions should be presented in a clear and unambiguous manner. Every symbol must be defined, and care should be taken to avoid multiple meanings for the same symbol. Be particularly careful to avoid confusion in the use of the numeral "1", the lower-case letter "l", and the capital letter "I", and

between the numeral "0" and the capital letter "O", because many type fonts do not clearly distinguish between them. If necessary, make a marginal note to identify the character. In display equations using fractions (except superscripts), numerators should be stacked over denominators rather than placed on a single line and separated by a slash (/). Very large and very small numbers should be expressed in scientific notation, e.g.,  $3.62 \times 10^9$  and  $3.62 \times 10^{-9}$ .

Use Microsoft Word's equation editor [Insert, Object] or MathType to prepare equations.

**International Journal of Applied Ceramic Technology  
Appendix A**

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