

## ***Aims and Scope***

*Journal of Advanced Ceramics* is a peer-reviewed, international journal published on behalf of the State Key Laboratory of New Ceramics and Fine Processing (Tsinghua University) and the Advanced Ceramics Division of the Chinese Ceramic Society.

*Journal of Advanced Ceramics* publishes the results of theoretical and experimental studies related to the processing, structure and properties of advanced ceramics and ceramic-based composites. Papers on all aspects of the science of advanced ceramics are welcome, including, but are not limited to, a variety of topics such as:

- **Processing:** powder preparation and characterization; colloidal science; novel forming and sintering technologies; patterning, templates and self-assembly; large scale/complicated shape processing; hybrid processes, co-firing of metals and ceramics; etc.
- **Structure characterization:** analytical; microscopy; scanning probes; nanoscopic; optical; electrical; magnetic; acoustic; spectroscopic; diffraction; etc.
- **Properties:** mechanical; electrical; ferroelectric; thermal; optical; magnetic; interfacial; transport; thermodynamic; etc.
- **Advanced materials:** such as ultra high-temperature materials; transparent ceramics; lead-free piezoelectrics; ferroelectrics, ferromagnetics and multiferroics; solid oxide fuel cells; advanced ceramic thermal and environmental coatings; nanostructured ceramics; advanced bio- and bio-active ceramics; etc.
- **Basic sciences:** defects; diffusion; phase transformation; phase equilibrium; thermodynamics; kinetics; chemical; thermal stability; etc.

## ***Instructions for Authors***

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The *Journal's* language is English. Either British English or American English spelling and

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The *Journal* publishes regular research papers, rapid communications and review articles.

In principle, a regular research paper should be longer than 8 printed pages and a review article should be longer than 12 printed pages. Rapid communications, however, are limited to 4 printed pages. *A manuscript which do not meet these requirements will be returned directly without review.* When preparing a manuscript, please keep in mind that a printed page of the *Journal* contains approximately 700 words including equivalent word counts for figures and tables.

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### **Manuscript structure and instruction**

Please follow this order to type the manuscript: Title page, Abstract, Keywords, Main text, Acknowledgements, References, Appendix (if necessary), Tables, Figure captions, and then Figures.

**Title page.** The title page should contain: (i) a concise and informative title; (ii) the name(s) of the author(s); (iii) the affiliation(s) and address(es) of the authors; (iv) the e-mail address of the corresponding author.

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**Footnotes.** Essential footnotes to the text should be numbered consecutively and placed at the bottom of the page to which they refer. Footnotes to the table should be indicated by superscript lower-case letters (or asterisks) and placed immediately below the table.

**Formulae and symbols.** Formulae, symbols and all subscripts, superscripts, Greek letters, and other characters must be legible and carefully checked. Standard mathematical notation should be used. All symbols used in manuscript must be explained. If necessary, a list of symbols may be provided and placed immediately after Reference section.

**Equations.** Numbering consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text), e.g.,

$$K = Y\sigma_f \sqrt{c} \quad (1)$$

and referring the equation with Eq. (1), Eq. (2), ..., in the text.

For the simple formulae which appear in the line of normal text, please use solidus (/) instead of a horizontal line for small fractional terms, e.g.,  $x/y$ .

Powers of  $e$  are often more conveniently denoted by “exp”.

In principle, variables should be presented in *italics*.

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Some examples:

(a) There are several different methods, such as chemical precipitation [1], hydrothermal [2-4], sol-gel [2,5,6], and mechanochemical methods [7,8].

(b) This phenomenon was originally observed by John and Williams [1] in 1980.

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Some examples:

(a) *Journal article*

[1] Han YC, Li SP, Wang XY, *et al.* Synthesis and sintering of nanocrystalline hydroxyapatite powders by citric acid sol-gel combustion method. *Mater Res Bull* 2004, **39**: 25-32.

(b) *Book (authored)*

[2] Lawn BR. *Fracture of Brittle Solids*. Cambridge (UK): Cambridge University Press, 1993.

(c) *Book chapter and paper in Proceedings*

[3] Craighead HG. Nanostructures in electronics. In *Nanomaterials: Synthesis, Properties and Applications*. Edelstein A, Cammatata R, Eds. New York: Taylor and Francis, 1998: 565-566.

(d) *Others*

[4] Hammond PW. Four-quadrant AC-AC drive and method. U.S. patent 6 166 513, Dec. 2000.

[5] Peng ZJ. Surface modification of ceramic cutting tools by energetic ions. Ph.D. Thesis. Beijing (China): Tsinghua University, 2002.

[6] Information on <http://www.weld.labs.gov.cn>

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