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DESCRIPTION

Ceramics International covers the science of advanced ceramic materials. The journal encourages contributions that demonstrate how an understanding of the basic chemical and physical phenomena may direct materials design and stimulate ideas for new or improved processing techniques, in order to obtain materials with desired structural features and properties.

Ceramics International covers oxide and non-oxide ceramics, functional glasses, glass ceramics, amorphous inorganic non-metallic materials (and their combinations with metal and organic materials), in the form of particulates, dense or porous bodies, thin/thick films and laminated, graded and composite structures. Process related topics such as ceramic-ceramic joints or joining ceramics with dissimilar materials, as well as surface finishing and conditioning are also covered. Besides traditional processing techniques, manufacturing routes of interest include innovative procedures benefiting from externally applied stresses, electromagnetic fields and energetic beams, as well as top-down and self-assembly nanotechnology approaches. In addition, the journal welcomes submissions on bio-inspired and bio-enabled materials designs, experimentally validated multi scale modelling and simulation for materials design, and the use of the most advanced chemical and physical characterization techniques of structure, properties and behaviour.

Technologically relevant low-dimensional systems are a particular focus of *Ceramics International*. These include 0, 1 and 2-D nanomaterials (also covering CNTs, graphene and related materials, and diamond-like carbons), their nanocomposites, as well as nano-hybrids and hierarchical multifunctional nanostructures that might integrate molecular, biological and electronic components.

Ceramics International is particularly keen to attract papers which deal with fundamental scientific aspects that are relevant to the development of the whole range of advanced ceramics including e.g. phase equilibria and transformations, reactivity, transport processes, thermodynamic and electronic properties, as well as quantum effects in low dimensional materials.

Priority materials and areas of interest are: Advanced ceramics and composites for civil, military and industrial applications at room and moderate temperatures- High and ultrahigh temperature structural ceramics and composites for use in extreme environments; Electroceramics such as dielectric and microwave ceramics, ferroelectrics, piezoelectrics, pyroelectrics, thermoelectrics, ferroelastics; magnetic, multiferroic, semiconducting and fast ion-conducting ceramics; high T_c superconductors, topological insulators; Optical ceramics including luminescent and chromogenic materials, transparent conducting and semiconducting ceramics, electro-optical, magneto-optical and laser materials, inorganic optical fibers, plasmonic structures and electromagnetic metamaterials; Ceramics for

nuclear fission, fusion and nuclear waste management technologies; Bioinert and bioactive ceramics for the full range of medical applications, including functional nanoparticles, composite materials and hybrid hierarchical nanostructures for tissue engineering, delivery systems, bio imaging and neural interfaces.

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GUIDE FOR AUTHORS

INTRODUCTION

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- Optical ceramics including luminescent and chromogenic materials, transparent conducting and semiconducting ceramics, electro-optical, magneto-optical and laser materials, inorganic optical fibers, plasmonic structures and electromagnetic metamaterials;
- Ceramics for nuclear fission, fusion and nuclear waste management technologies;
- Bioinert and bioactive ceramics for the full range of medical applications, including functional nanoparticles, composite materials and hybrid hierarchical nanostructures for tissue engineering, delivery systems, bio imaging and neural interfaces.

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[3] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

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[4] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

Reference to a website:

[5] Cancer Research UK, Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>, 2003 (accessed 13 March 2003).

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