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## Journal of Materials Science

- History, Opportunities for Publishing, and Relationship with Brazilian MRS

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6<sup>th</sup> Brazilian MRS Meeting, Natal, October 30 2007

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## History

First issue: February 1966  
 Founder: Professor Robert Cahn, University of Cambridge  
 Original publisher: Chapman and Hall, London

## Goals

- Bring together papers in the emerging field of materials -- more than metals
- Become the core MSE journal -- a "must read"
- Publish reviews -- an important contribution of the journal
- First journal for publication of work on composites

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## Impact

- In the first issue was a paper on size factors for metallic solid solutions -- now over 420 citations.
- Ken Jack review on Sialons - at the time a new form of nitrogen ceramic with exciting potential for high temperature/high strength applications -- over 600 citations (see **Symposium B** -- still considerable work on nitrogen ceramics).
- Brian Lawn and Rodney Wilshaw -- principles of indentation fracture, led to development of nanoindentation technique for small volumes.
- Phase diagram for zirconia - yttria system (transformation toughening)
- Production of high strength polyethylene fibers (many applications)
- Making diamonds from methane (now used for diamond thin films)

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## Measures of Impact

- Number of citations: 16,078 for 2006; 15,674 for 2005; 15,161 for 2004; and 14,899 for 2003.
- Rank for total citations: #5 in 3 of the last 4 years.
- Half-life is >10 years --
  - articles published in *JMS* make important long term contributions.
  - the only MSE journal in the top 10 most cited with such a high half-life.

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## Aims and Scope

*Journal of Materials Science* publishes:

- Reviews
- Full-length papers
- Rapid communications

Papers present original research results on, or techniques for studying, the relationship between structure, properties, and uses of materials

Subjects include:

Metals	Ceramics and glasses
Polymers	Electrical materials
Composite materials and fibers	Nanostructured materials and nanocomposites
Biological and biomedical materials	


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## Now

- Editor in Chief: Prof. C. Barry Carter, Univ. of Connecticut
- In 2005 incorporated the journal *Interface Science*
- 40th Anniversary Issue published February 2006
- Publisher: Springer

## Goals

- Continue publishing papers in the broad field of MSE
- Rapid publication of important time-sensitive papers
- Publish critical reviews
- Strategic partnerships for Special Issues and Special Sections

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## Special Issues

### Emerging Areas (examples from 2007)

**Volume 42, Number 21** Nano- and Micromechanical Properties of Hierarchical Biological Materials: Linking Mechanics, Chemistry and Biology; Guest Editor: Markus J. Buehler

**Volume 42, Number 10** Size-Dependent Effects in Materials for Environmental Protection and Energy Application; Guest Editor: Radostina Stoyanova

**Volume 42, Number 5** Nanostructured Materials-Processing, Structures, Properties and Applications; Guest Editors: Yuntian T. Zhu, Terence G. Langdon, Z.L. Wang

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## Special Issues

### Strategic Partnerships

**Volume 42, Number 7** Special Section from the 4th Brazilian MRS Meeting Meeting Chairs: Celso P. de Melo and Anderson S. L. Gomes

**Volume 41, Number 23** Special Section: Advanced Materials and Characterization: Proceedings of the Brandon Symposium; Guest Editors: Srinivasa Ranganathan and Wayne D. Kaplan

**Volume 41, Number 14** Special Section: Frontiers of Electron Microscopy in Materials Science 2005; Guest Editors: Knut Urban, J. Mayer, M. Luysberg, and K. Tillmann


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## Brazilian MRS and *Journal of Materials Science*

**Special Section** from the 4th Brazilian MRS Meeting, Meeting Chairs: Celso P. de Melo and Anderson S. L. Gomes - Published April 2007 (21 papers)


**Special Section** from the 5th Brazilian MRS Meeting, Published January 2008 (29 papers)

**Special Issue** from the 6th Brazilian MRS Meeting, Publication target - October 2008 (40+ papers)

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## How to Submit a Manuscript for the Brazil Special Issue

- *JMS* does not publish conference proceedings
- *JMS* does publish full length articles from conferences
- All manuscripts go through the normal peer-review process
- Manuscripts should be submitted online <http://jmsc.edmgr.com>
- Journal is in English - no translation services available
- Manuscripts must have a 200 word abstract
- Text should be divided into sections
- Manuscripts must include discussion of results
- Authors must nominate qualified reviewers
- Authoritative reviews encouraged (minimum of 15 pages)

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## Time-line for Special Issue with Papers from VI SBPMat

**Submission Deadline** - December 15th 2007: six weeks after the meeting closes. Late submissions only permitted with prior approval from the editors.

**Initial Feedback to Authors** - February 15th 2008: accept, reject, major revisions, minor revisions.

**Final Decisions to Authors** - April 15th 2008: accept or reject on revised manuscripts.

**Special Issue Published** - October 2008: in time for VII SBPMAT in São Paulo.

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## Meet Us

Come to meet us at the Springer booth (#15) from 10am-noon on Wednesday and Thursday mornings.

## Contact Us

Questions after the meeting by email:  
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