JOURNAL OF NUCLEAR MATERIALS

AUTHOR INFORMATION PACK

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ISSN: 0022-3115

DESCRIPTION

The *Journal of Nuclear Materials* publishes high quality papers in materials research for nuclear applications, primarily fission reactors, fusion reactors, and similar environments including radiation areas of charged particle accelerators. Both original research and critical review papers covering experimental, theoretical, and computational aspects of either fundamental or applied nature are welcome.

The breadth of the field is such that a wide range of processes and properties in the field of materials science and engineering is of interest to the readership, spanning atom-scale processes, microstructures, thermodynamics, mechanical properties, physical properties, and corrosion, for example.

The following list describes topics within the scope of the Journal.

Fission reactor materials, including fuels, cladding, core structures, pressure vessels, coolant interactions with materials, moderator and control components; fission product behavior.Materials aspects of the entire fuel cycle.Materials aspects of the actinides and their compounds.Performance of nuclear waste materials; immobilization of wastes.Fusion reactor materials, including first walls, blankets, insulators and magnets.Neutron and charged particle radiation effects in materials, including defects, transmutations, microstructures, phase changes and macroscopic properties.Interaction of plasmas, ion beams, electron beams and electromagnetic radiation with materials.

Please note: a manuscript must focus on materials science and engineering related to nuclear applications. Thus, all topics within nuclear science and engineering or materials science and engineering do not necessarily fall within the scope. Topics outside the scope of the Journal will not be considered, and potential alternative journals are indicated in brackets in the list below. Typical examples of topics which are out of scope for the Journal include:

(1) Topics in nuclear engineering and other areas not addressing materials, such as:
Particle transport, cross-sections or isotope ratios (Radiation Physics and Chemistry; Annals of Nuclear Energy) Process engineering (Materials Science and Engineering A; Materials and Design) Thermal hydraulics (Nuclear engineering and design) Isotope separation processes (Nuclear Instrument and Methods B) Fusion reactor design and technology (Fusion Engineering & Design) Plasma physics (Physics Letters A)

(2) Materials topics not addressing nuclear applications, such as general studies in:

Physical properties including modeling and simulation (Materials Science and Engineering A, Materials Letters) Metallurgy (Journal of Alloys and Compounds; Materials Science and Engineering A) Corrosion (Corrosion Science) Welding and joining (Journal of Alloys and Compounds; Materials and Design) Ceramics (Journal of the European Ceramics Society; Ceramics international)

AUDIENCE

Materials scientists.

IMPACT FACTOR

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Types of papers

The *Journal of Nuclear Materials* publishes original research papers, critical reviews, and short communication. Short manuscripts (not exceeding a total length of 2000 words) which the author(s) have entitled 'Short communication' may be published in a shorter time than regular articles. Abstracts may be included with short communication; however, their length should be limited to 75 words.

Please read the "Hints" for information on how to register, and review the "Tutorial for Authors" for a run-through of the submission process.

Journal of Nuclear Materials: Policy on Publishing Conference Contributions

The *Journal of Nuclear Materials* publishes high quality articles in materials science and engineering related to nuclear applications. Articles must be timely, original, and fit the scope of the Journal. Presentations made at conferences, which fulfil these criteria, are therefore welcome. Selected articles from conferences may be grouped in a special issue, and this procedure is given below. Complete proceedings will not be published in *JNM* and requests for this will be forwarded to *Procedia - Materials Science or Physics Procedia*, Elsevier products targeted for this http://www.elsevierpublishingsolutions.com/procedia.asp). Sponsored supplements or themed issues in *JNM* with selected papers on a specific topic can be considered.

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BEFORE YOU BEGIN

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[11] W. Strunk Jr., E.B. White, The Elements of Style, third ed., MacMillan, New York, 1979 (Chapter 4).
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[3] 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.**Use of et al**:For Numbered-style references, seventh and subsequent authors should be replaced by et al.
[7] S. Weikert, D. Freyer, M. Weih, N. Isaev, C. Busch, J. Schultze, et al., Rapid Ca2+-dependent NO-production from central nervous system cells in culture measured by NO-nitrite/ozone chemoluminescence, Brain Res. 748 (1997) 1-11.

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