

JOURNAL OF NUCLEAR MATERIALS

L.K. Mansur (Chairman)
Metals and Ceramics Division
Oak Ridge National Laboratory
P.O. Box 2008
Oak Ridge, TN 37831-6376, USA

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The Journal of Nuclear Materials publishes high quality papers in materials research relevant to nuclear fission and fusion reactors and high power accelerator technologies, and in closely related aspects of materials science and engineering. 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 is of interest to the readership, spanning atomic lattice defects, microstructures, thermodynamics, corrosion, and mechanical and physical properties, for example. The following list, which is not exhaustive, describes topics appropriate to the Journal.

- Fission reactor materials, including fuels, cladding, core structures, pressure vessels, moderator and control components: fission product behavior.
- Materials aspects of the entire fuel cycle.
- Performance of nuclear waste materials, glasses and ceramics, immobilization of wastes.
- Fusion reactor materials, including first walls, blankets, insulators, and magnets.
- Neutron radiation effects in materials, including defects, microstructures, transmutations, phase changes, and macroscopic properties.
- Interactions of plasmas, ion beams, electron beams and electromagnetic radiation with materials.

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Cover picture: SEM image of an as-received zirconate powder: $Gd_2Zr_2O_7$ at low magnification, Part of Fig. 1 in the paper by A.R. Boccacini et al., in pp. 148–158 of this issue.