

Special Issue

Materials for Nuclear Waste Immobilization

Message from the Guest Editors

Safe and effective management of nuclear waste is crucial in ensuring sustainable utilization of nuclear energy. Nuclear waste must be processed to make it safe, which includes its conditioning, so it is immobilized and packaged before storage and disposal.

Immobilization of waste radionuclides in durable wasteform materials provides the most important barrier to contribute to the overall performance of any storage and/or disposal system. Materials for nuclear waste immobilization are, thus, at the core of multibarrier systems of isolation of radioactive waste from environment aimed to ensure long term safety of storage and disposal. This Special Issue aims to analyze the materials currently used, as well as novel materials for nuclear waste immobilization, including technological approaches utilized in nuclear waste conditioning pursuing to ensure efficiency and long-term safety of storage and disposal systems. It will focus on cementitious materials, geopolymers, glasses, glass composite materials, and ceramics developed and used in nuclear waste immobilization with performance of such materials of the utmost importance.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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