Special Issue

Zirconolite Ceramic and Glass-Ceramic Wasteforms

Message from the Guest Editors

As nuclear power continues to contribute significantly to the international energy portfolio, there remains a pressing need to develop advanced materials capable of facilitating the safe immobilisation, storage, and final disposal of highly radioactive nuclear waste streams. Several decades of continued wasteform development has identified a number of glass and ceramic compositions that could feasibly immobilise actiniderich wastes, whilst conferring passive safety that is compatible with geological disposal. Accordingly, this Special Issue is focussed on the properties of zirconolite and related titanate/zirconate wasteform materials. The aim of this issue is to connect scientists around the globe with interests in the synthesis and processing optimisation; mechanical, thermal and electronic properties; and durability and radiation stability of zirconolite single/polyphase ceramics and glass-ceramic composites, alongside related wasteform materials. The guest editors kindly encourage submissions from researchers internationally to contribute original work, both experimental and theoretical, and review articles conveying recent advances.

Guest Editors

Dr. Lewis R Blackburn

Prof. Dr. Michael I. Ojovan

Dr. Daniel Gregg

Deadline for manuscript submissions

closed (31 October 2023)



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Message from the Editor-in-Chief

Ceramics (ISSN 2571-6131), an international, open access journal, provides an advanced forum for ceramics science and engineering. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We are committed to drive Ceramics to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts. Your contribution should lead to the development of technical ceramics with better performances and to improve our quality of life.

Editor-in-Chief

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