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Zirconolite Ceramic and Glass-Ceramic Wasteforms

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Message from the Guest Editors

Dear Colleagues,

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 actinide-rich 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







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Message from the Editor-in-Chief

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