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# Journal of Fluorine Chemistry

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## Preface

In the field of energy generation, the part of electricity provided from nuclear plants should become more and more important to satisfy the energy demand in industrialized and emergent countries.

In that field, fluorine gas is already considered as a key element since it is used for the preparation of  $UF_6$  which allows the uranium enrichment. In the same way, HF plays also an important role in the fuel cycle.

For the Generation IV nuclear energy systems, six technology concepts have been identified. Among them, the molten salt reactor concept using fluorides seems to be a promising candidate. Consequently, many studies are devoted to the optimisation of this new reactor all over the world. These studies concern several aspects: corrosion, thermodynamics and physico-chemical properties of the fused salt, refining... Furthermore, the development of the pyrochemical reprocessing of next generation fuels (used by other concepts) requires similar studies.

The main objective of this special issue is to summarize the most recent advances in this field and we do hope that this issue

will contribute to underline the importance of fluorine in the field of nuclear energy.

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