



## Current Status and Prospects of Extraction and Separation Technology of Mixed Rare Earth Elements

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### Message from the Guest Editor

The role of rare earth elements (REE) in modern life and their use in the chemical industry have increased at a strikingly fast pace over the last three decades. Numerous applications, including the fabrication of magnets, superconductors, catalysts, and batteries, has caused a significant spike in the demand for REE. More recently, an increase of the use of radioactive isotopes of REE for medicinal applications as novel cancer treatments and imaging agents, namely  $^{44,47}\text{Sc}$ ,  $^{90}\text{Y}$ ,  $^{177}\text{Lu}$ , and others, has resulted in a rigorous search for novel and efficient separation technologies. These technologies utilize varying methodologies to achieve separation of individual rare earth elements that are very similar in nature.

This Special Issue will focus on the development and applications of state-of-the-art technologies and methods for separating rare earth elements, including but not limited to solvent extraction, ion exchange, chromatography, and electrochemistry. The kinetics of the mass transfer processes through the interface will be of interest. Precedence will be given to unique and novel approaches as well as the most recent developments in the field.



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# Special Issue



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