

## **The environmental perspective of rare earth elements as critical minerals: take the good with the bad**

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Rare earth elements (REEs) are critical to innovative high-technology sectors and the low-carbon economy, while also being progressively used in agriculture and environmental restoration. Despite the numerous applications of REEs to essential economic sectors and burgeoning technologies, the scientific community unanimously recognizes the lack of knowledge on the biogeochemistry and toxicity of REEs, which hinders the development of environmental regulations. There are also significant concerns on the global supply chain and social resistance to these critical minerals, given the complex ore refining processes, environmental impacts and the necessity of reconciliation with Indigenous Nations.

This seminar will focus on the mixed blessings of rare earth elements as critical minerals from environmental and socio-economic reconciliation perspectives.