

Exploring Hidden Treasures: The Critical Minerals Institute's Deep Dive into Rare Earths within Ionic Clays

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The world of rare earths is, for many, a topic reserved for experts and industry insiders. However, given the rising demand in sectors from technology to automotive, it's essential for us to grasp its implications. A recent discussion hosted by the [Critical Minerals Institute](#) (CMI) shed light on this last week, emphasizing the potential and challenges associated with ionic clay, a noteworthy source of these minerals.

The dialogue was set into motion by Tracy Weslosky, an industry expert and the Managing Director for the [CMI](#). One of the first points brought to the fore was by [CMI](#) Co-Chair Jack Lifton, who underscored the paramount importance of heavy rare earths. These are not just minerals beneath the ground; they are pivotal for the creation of high temperature resistant magnets. Lifton's concern over China's supremacy in the supply of these minerals was palpable, especially given the significance of elements like dysprosium (Dy) in propelling the green revolution.

Now, while it may seem like dysprosium (Dy) or terbium (Tb) can be extracted from various global deposits, [CMI](#) Co-Chair Ian Chalmers provided a reality check. He underscored the complexities and challenges in extracting these minerals economically and efficiently. And what added to the intrigue was his skepticism about the volume of claims surrounding ionic clay deposits, especially those originating from Australia. Both Lifton and Chalmers converged on one point: the paramount

importance of understanding what exactly “ionic clays” are and the necessity of detailed feasibility studies before any decisive actions.

Delving deeper, the conversation steered towards understanding ionic clay deposits better. What are they, how do they form, and what characteristics do they possess? These deposits, laden with potential, are surrounded by a maze of extraction costs, supply chain complexities, and strategic considerations. One issue that particularly stood out was the apprehension regarding the U.S.’s level of awareness of these challenges, especially when juxtaposed with China’s advanced expertise in this domain.

As the discussions progressed, a representative from [Aclara Resources Inc.](#) (TSX: ARA) illuminated an initiative unfolding in Chile. The focus? The significant U.S. investments pouring into the value chain and the emergence of separation plants. But the conversation did not stop there. It ventured into the realm of the automotive industry, unearthing the immense need for elements like neodymium (Nd) in the heart of electric vehicle motors.

Various voices in the conversation zoomed in on diverse facets—from the geographical spread of these deposits to the painstakingly long formation processes, from economic conundrums surrounding extraction to the pragmatic challenges in ensuring high recovery rates.

So, where does this leave us? The undeniable truth is the vast potential harbored by ionic clays as a source for neodymium and heavy rare earths. But potential, on its own, isn’t enough. We’re faced with a tapestry of challenges—be it in extraction, processing, or navigating supply chain intricacies. These materials aren’t just geological wonders; they are the lifeblood of industries, particularly the automotive one. This, in

essence, amplifies the urgency and significance of such discussions. The future, it seems, is as much about rare earths as it is about innovation and strategic foresight.

For more information on attending a monthly CMI Summit, [click here](#)