

Tusaar Achieves Milestone in Rare Earth Magnet Recycling

December 13, 2023

Broomfield, CO — After successfully demonstrating the operation of its pilot plant to extract REE from mine waste, Tusaar Corp. supported by US Department of Defense, has achieved a significant second milestone by deploying its innovative chromatographic process to recycle high strength magnets and recovered their high-value rare earth elements (REE).

REEs are critical to the development of advanced technologies, including modern electronics, wind turbine energy systems, electric vehicles motors, and numerous defense applications. Tusaar's innovative processes offers a sustainable solution to address the growing demand for these valuable materials while also supporting the domestic supply chain through recycling.

Key features of Tusaar's breakthrough technology include:

1. **Efficiency:** Tusaar's system recovers over 95% of the original rare earth elements, delivering mixed rare earth salt products with >90% purity.
2. **Simple & Eco-Friendly:** The recycling process reduces complexity by utilizing three main components—acid, base, and water—making it economic and ecofriendly. It eliminates the need for volatile organics and toxic chemicals commonly used by industry, reducing residual management complexities.
3. **Operational Simplicity** – pH controlled solid phase chromatography permits real-time monitoring and management. The accurate and reproduceable pH control reduces human interaction, errors, and related operational expenses.



4. **Versatility:** The system has successfully extracted REE's from ores, mine waste, and recycled materials. Tusaar is now pursuing other critical materials including gallium and battery elements.
5. **Economic:** The innovative process operates at low pressure and temperature significantly reducing energy requirements, capital outlay and operating costs.

By successfully addressing these key factors, Tusaar's technology not only promotes resource conservation, but also enables the creation of an economically viable domestic REE supply chain.

"We are proud to announce this breakthrough in rare earth element recycling, made possible through the support of the United States Department of Defense," said Dave Pearce, Chairman at Tusaar. "This achievement represents a significant step toward a more sustainable and secure supply chain for rare earth elements within the US, crucial for the advancement of technology and our national security."

Tusaar is actively seeking collaboration with investors, industry partners and government agencies to further develop applications.

About Tusaar: Tusaar is a Colorado-based company specializing in innovative technologies for critical materials and resource recovery. With a focus on sustainability and environmental stewardship, Tusaar is committed to advancing solutions that enable the US to establish a strong domestic source of these materials.



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