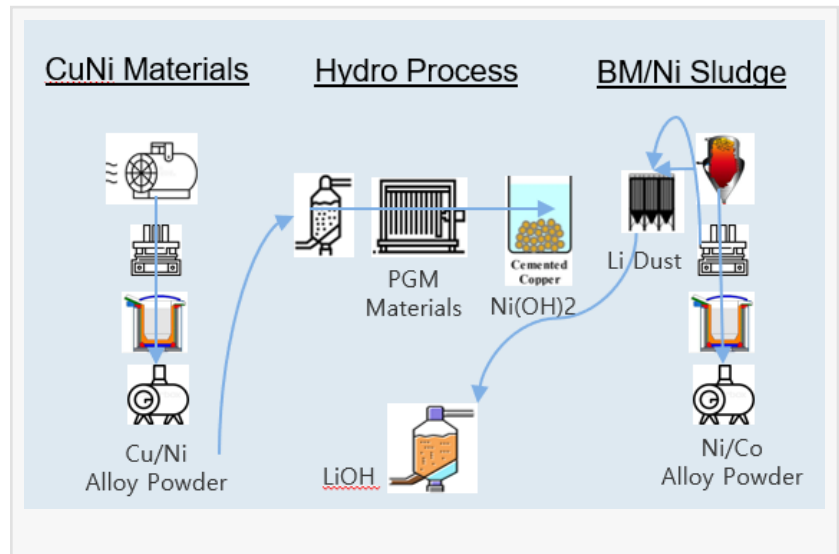


LNP Commercializes new Pyrometallurgical process with revolutionary recoveries for recycling battery metals

LNP succeeded in developing a mass production technology that recovers lithium contained in black mass from spent lithium-ion batteries more than 95%.

ULSAN, SOUTH KOREA, May 8, 2024
/EINPresswire.com/ -- LNP
Commercializes new Pyrometallurgical process with revolutionary recoveries for recycling battery metals



LNP Recycling Co., Ltd. (CEO Kim Kyung-soo), a South Korean company, succeeded in developing a mass production technology that recovers lithium contained in black mass from spent lithium-ion batteries more than 95% using plasma electric furnace for the first time in Korea. This revolutionary recovery rate compared to mid 80% of the hydrometallurgical process and is expected to secure more than 93% of Li in the form of Lithium carbonates by water leaching.

The new process is based on the combination of the mass production technology of steel and non-ferrous smelting, and can smelt a wide range of materials including black mass to nickel containing composite materials, and can recover lithium directly from Li ore. Lithium is captured in dust form. While copper is recovered separately in the process, all battery metals will be recovered at a min. 98% recovery rate in the form of metal alloy powder, which is easily leachable and is compliant to precursor specifications(pCAM).

Skipping pelletizing steps to reduce dust, this process simply mixes raw materials with flux, additives, and charge into an electric furnace, which reduces pretreatment costs and generates less dust other than Li compounds. The process uses clean energy electricity and graphite in the materials as a heat source. The CO₂ of graphite will be captured and recycled into liquidified CO₂ for the production of Lithium carbonate in the future. And this process removes the issues of troublesome wastewater treatment costs required in the hydrometallurgical process and

enables mass production of low cost battery metals, which are expected to be in short supply in the near future.

The Company is fully ready to take not only production scrap from the battery supply chain but also the waste stream of end-of-life Li ion batteries, which are anticipated to explode soon worldwide.

The company has strategic partnership with MCC Non-ferrous Trading in the United States who will supply various raw materials including black mass and Ni containing materials. Mass production can start at any time when a mass production facility of the first phase is built.

Currently, the company is producing metal powder containing gold, palladium, platinum, and rhodium at a processing capacity of 200 tons/month. It plans to increase the capacity to 400 tons/month in 2025

About LNP Recycling

Key engineers who have more than 30 years experience in Steel and Copper smelting industry established a year ago to materialize the jointly developed technology and have been focusing on low-cost, environmentally friendly, and closed loop technology that uses a plasma electric furnace which temperature can be raised to more than 1700 degrees Celsius, and can maximize electrical efficiency, minimizing power and investment costs. The furnace is custom designed by LNP. Management and engineers have a background in production and R&D of steel and copper smelting industry in Korea.

Guidance

Through outside investment, the company plans to complete the installation of a 35,000 tons/year black mass processing line in the second half of 2024 and enter the second phase of growth by securing a 100,000-ton raw materials processing capacity via Li ore smelting, overseas plants in Europe and the United States starting from 2025. If you have any inquiries, please contact GS Kim at gskim@lnprecycling.com.

David C Kim

LNP Recycling

davidk@lnprecycling.com

Visit us on social media:

[LinkedIn](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/709530295>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something

we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.