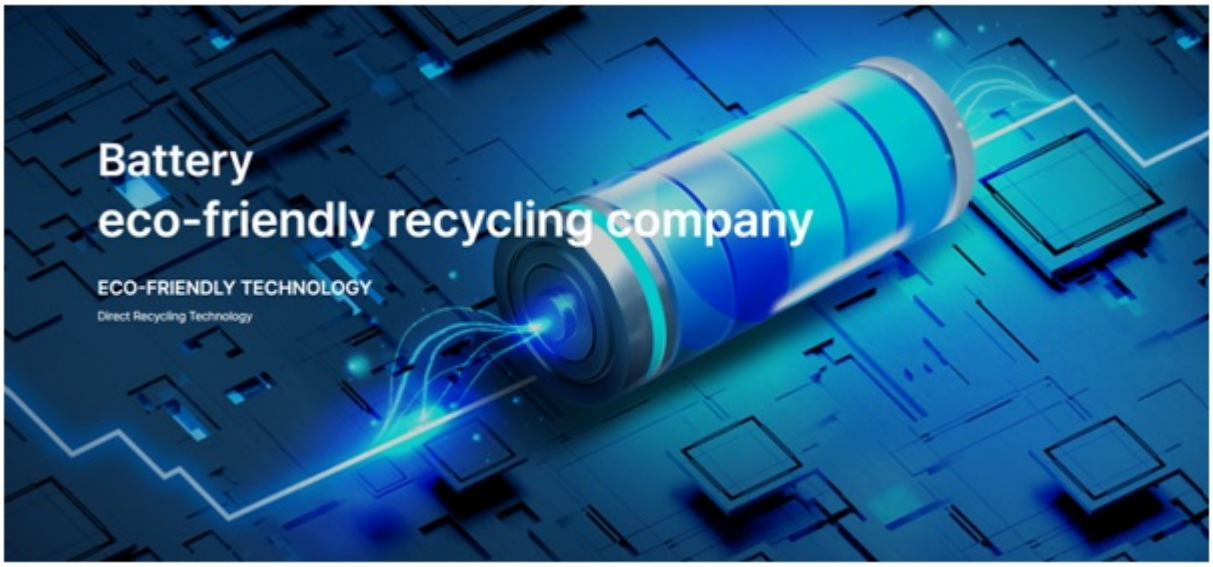
Business

Lithium-Ion Battery Recycling Service Provider | ABR

December 26, 2024



ABR Co., Ltd. specializes in recycling lithium-ion batteries, offering sustainable and efficient solutions for managing end-of-life batteries. Their services focus on recovering valuable materials such as lithium, cobalt, and nickel, ensuring minimal environmental impact while contributing to the circular economy. ABR's advanced recycling processes prioritize safety,

compliance with environmental regulations, and high recovery rates, making them a key player in battery sustainability.

Key Technologies and Processes of Recycle Lithium-ion Batteries:

Battery Collection and Sorting

- ABR collects used lithium-ion batteries from various sources, including consumer electronics, electric vehicles (EVs), and industrial applications.
- Advanced sorting technologies classify batteries by chemistry (e.g., lithium-cobalt, lithium-iron phosphate) to optimize downstream processing.

Battery Discharge and Dismantling

- Batteries are safely discharged to minimize hazards such as thermal runaway during handling.
- Automated dismantling systems remove outer casings, separate modules, and retrieve critical components such as cathodes and anodes.

Mechanical Processing

- Batteries undergo shredding to break them into smaller particles.
- Separation technologies, such as sieving, magnetic separation, and air classification, are used to isolate materials like metals, plastics, and active battery powders.

Hydrometallurgical Process

- Aqueous chemical processes extract high-value metals like lithium, cobalt, and nickel.
- This technique uses leaching, precipitation, and purification steps to recover materials with high purity for reuse in new batteries.
- Hydrometallurgy is environmentally friendly, as it minimizes emissions compared to pyrometallurgy.

Pyrometallurgical Process

- Batteries are processed at high temperatures to recover metals such as cobalt and nickel.

- Though energy-intensive, this method can handle a wide range of battery chemistries and is useful for processing mixed or contaminated materials.

Material Refinement and Reuse

- Recovered materials are refined to meet industry standards for reintroduction into battery manufacturing or other applications.
- For instance, lithium carbonate, cobalt sulfate, and nickel sulfate are prepared for use in new lithium-ion batteries.

If you are looking for a recycle lithium-Ion batteries services and battery recycling services, you can find them at ABR.

From January 7 to 10, 2025, the world's leading electronics exhibition will be held in Las Vegas, USA.

ABR will be attending this exhibition during the above period.

If you have even the slightest interest in eco-friendly recycling industry, visit ABR's booth at the CES (Cunsumer Electronics Show) 2025 exhibition to experience recycling technology!

– Exhibition Name: CES (Cunsumer Electronics Show) 2025

– Exhibition Dates: January 07 to 10, 2025

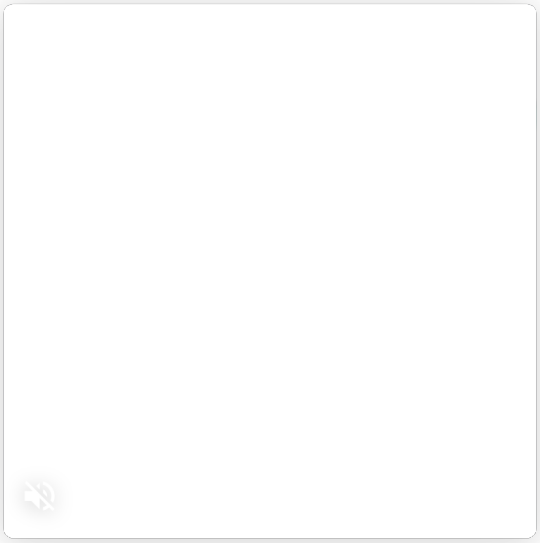
– Exhibition Site: https://www.ces.tech/

– Exhibition Location: Las Vegas Convention Center (LVCC), Las Vegas, USA

– ABR Booth: Hall A #50763

Click here to if you are interested in ABR products.

View more: Lithium-Ion Battery Recycling Service Provider



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