BATTERAY ZETA

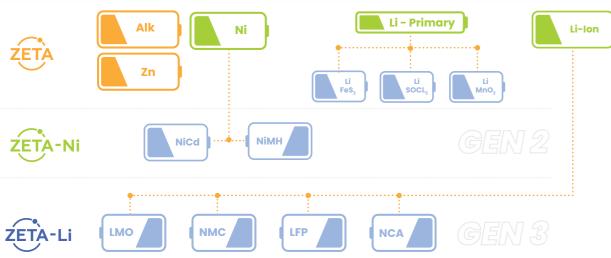
Advanced Lithium Sorting, Ready When You Are

ZETA-Li is a dedicated industrial solution for precision lithium battery sorting including NMC, LFP, LCO, and NCA. It is engineered to offer a separate platform optimized for lithium-only processing, including the classification of damaged, swollen, or unmarked cells.

Developed to meet the rising demand for lithium battery recycling, ZETA-Li enables deep recovery of cobalt, nickel, and lithium with exceptional accuracy and no reliance on external labeling.

This autonomous system shares the architectural DNA of BATTERAY ZETA but is uniquely designed for lithium-focused applications.





KEY ADVANTAGES OF ZETA-Li:

- · Identifies lithium battery types by internal chemistry, not appearance or labeling
- Classifies NMC, LFP, LCO, and NCA
- Operates with damaged, unmarked, or hybrid cells
- Increases black mass value by generating high-purity lithium fractions



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FIND HIDDEN TREASURE

Al-powered battery classification by chemical structure



BATTERAY™ ZETA series is the nextgeneration solution for precise portable battery sorting by internal composition

Designed for industrial recyclers, it enables the recovery of valuable resources by revealing the true chemistry inside each battery



KEY BENEFITS

- First system to solve long-standing Ni-Cd/Ni-MH contamination at industrial scale to compile with EU 2023/1542
- Automated separation without need for visual recognition or labeling
- Ready for lithium group recognition with optional upgrade





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Multi-sensor classification system combining X-ray, Z-analysis and optics

SYSTEM OVERVIEW

BATTERAY ZETA transforms industrial battery recycling with a new level of precision. It leverages a proprietary multi-sensor architecture and Al platform to classify batteries based on their internal chemical structure, not labels or appearance.

Built upon the trusted BATTERAY base, it extends functionality with high- precision Ni-Cd / Ni-MH sorting and is ready for optional lithium classification.

This solution is ideal for recyclers transitioning from manual to automated sorting.

KEY FEATURES

- Base mode: 6-group classification
- Over 95% accuracy for Ni-Cd vs Ni-MH
- Sorting capacity up to 600 kg/h
- 99.5% accuracy for alkaline and Zn
- Operator-friendly with minimal maintenance
- Handles damaged, corroded, unmarked batteries
- Lithium-ready architecture (optional)
- Unified software and mechanical design across ZETA systems



X-ray based multi-sensor detection system



Built-in self-calibration and adaptive inference engine



Intelligent classification using deep learning algorithms



Modular integration among existing BATTERAY installations

BENEFITS



Ensures compliance with EU Regulation 2023/1542 by reliably separating Ni-Cd batteries from Ni-MH to avoid environmental penalties and reputational risks



BATTERAY ZETA™ can be deployed as a full system or added as an upgrade to existing BATTERAY setups. The lithium version (ZETA-Li) can be installed additionally, providing future-proof flexibility.

Delivers higher purity fractions that significantly increase the market value of recovered metals to enable better monetization of recycling streams



Eliminates manual guesswork by applying Al-driven chemical classification to reduce labor, improve throughput, and enable confident decision-making in real time