CAMBRIDGE | Enterprise

Metal recovery from spent Li-ion batteries

A rapid, room temperature process for the recovery and recycle of cathode metals

Technology

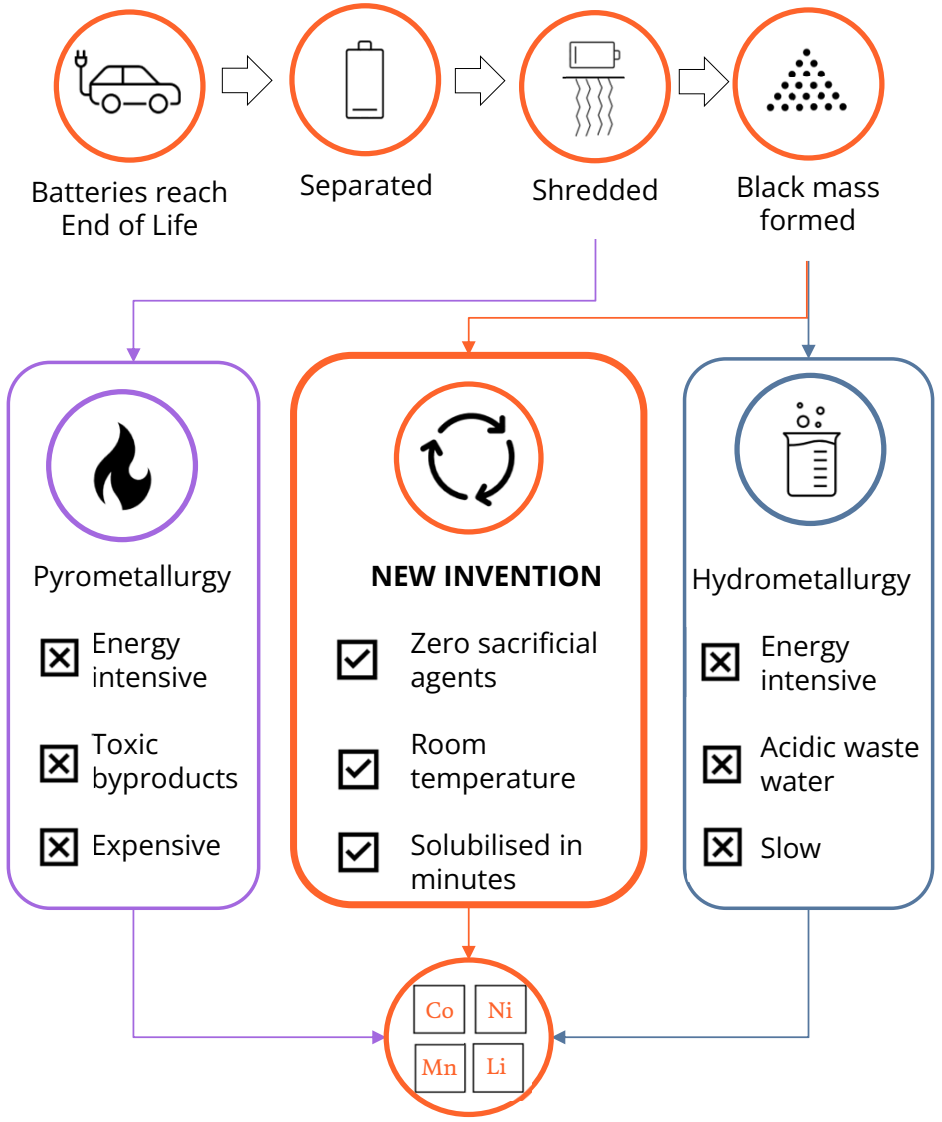
A sustainable, redox-mediated process for the cheap extraction and recycle of Co, Ni, Mn and Li salts from lithium batteries.

Benefits

- Significantly reduced energy requirements compared to both pyro- and hydro- metallurgic alternatives.
- Full solubilisation of metals achieved in minutes at room temperature (hydrometallurgy requires several hours at 90°C).
- Continuous, closed-loop process – allows the facile recovery and re-use of reagents with minimal waste.
- Eliminates the need for sacrificial agents, organic acids, or peroxides.
- Applicable to both existing and emerging nickel-rich cathodic materials.

Commercial applications

- Commercially scalable technique to replace conventional acid-based hydrometallurgy for the recovery of Co, Ni and Mn salts from depleted battery materials.



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