

Title (en)
METHOD FOR RECYCLING LI-ION BATTERIES

Title (de)
VERFAHREN ZUM RECYCELN VON LI-ION BATTERIEN

Title (fr)
PROCÉDÉ DE RECYCLAGE DE BATTERIES LITHIUM-ION

Publication
EP 4370720 A2 20240522 (DE)

Application
EP 22750694 A 20220711

Priority
• DE 102021207544 A 20210715
• EP 2022069343 W 20220711

Abstract (en)
[origin: CA3225952A1] The present application relates to a method for recycling lithium-containing electrochemical energy storage devices, more particularly cells and/or batteries, wherein: i) the electrochemical energy storage devices are first comminuted and a fraction comprising an active material is removed from the comminuted matter, the fraction comprising active material having carbon (C), lithium (Li) and at least one of the elements selected from the series comprising cobalt (Co), manganese (Mn), nickel (Ni), iron (Fe) and/or combinations thereof; ii) the fraction comprising active material is subsequently fed to a melt-down unit and is melted down in the presence of slag-forming agents, so that a molten slag phase and a molten metal phase are formed; and iii) then the lithium (Li) contained in the molten slag phase and/or molten metal phase is converted into a gas phase by the addition of a fluorinating agent and the carbon (C) is converted into a gas phase by the addition of an oxygen-containing gas, and said lithium and carbon are withdrawn from the process as discharge gas.

IPC 8 full level
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