

Title (en)
PYROMETALLURGICAL METHOD FOR RECYCLING SHREDDED MATERIAL OF WASTE FROM THE PRODUCTION OF NEW AND DEFECTIVE OR END-OF-LIFE BATTERIES FOR ELECTRIC VEHICLES OR PORTABLE LI-ION BATTERIES

Title (de)
PYROMETALLURGISCHES VERFAHREN ZUR WIEDERVERWERTUNG VON ZERKLEINERTEM ABFALL AUS DER PRODUKTION VON NEUEN UND DEFECTEN ODER LEBENSDAUERENDBATTERIEN FÜR ELEKTROFAHRZEUGE ODER TRAGBARE LI-IONEN-BATTERIEN

Title (fr)
PROCÉDÉ PYRO-MÉTALLURGIQUE DE RECYCLAGE DU BROyat DES DÉCHETS DE PRODUCTION DE BATTERIES NEUVES ET DÉFECTUEUSES OU USAGÉES DE VÉHICULES ÉLECTRIQUES OU DE BATTERIES PORTABLES TYPE LI-IONS

Publication
EP 4314360 A1 20240207 (FR)

Application
EP 22717230 A 20220325

Priority
• FR 2103117 A 20210326
• FR 2106738 A 20210624
• FR 2022050565 W 20220325

Abstract (en)
[origin: WO2022200747A1] The invention relates to a pyrometallurgical method for recycling shredded material of end-of-life Li-ion electric vehicle batteries, and/or waste from the production of these new and defective batteries, and/or portable Li-ion batteries. The method involves adding iron, melting by adding energy, separating a slag, carrying out an oxidising treatment and separating a second slag.

IPC 8 full level
C22B 1/00 (2006.01); **C21B 3/06** (2006.01); **C21B 5/00** (2006.01); **C21B 5/02** (2006.01); **C21B 5/04** (2006.01); **C21B 13/00** (2006.01); **C21B 13/08** (2006.01); **C21B 13/14** (2006.01); **C21C 5/36** (2006.01); **C22B 1/243** (2006.01); **C22B 1/245** (2006.01); **C22B 7/00** (2006.01); **C22B 23/02** (2006.01); **C22B 26/12** (2006.01); **C22B 47/00** (2006.01)

CPC (source: EP US)
C21B 3/06 (2013.01 - EP); **C21B 13/0013** (2013.01 - EP US); **C21B 13/006** (2013.01 - EP); **C21B 13/0066** (2013.01 - EP US); **C21B 13/008** (2013.01 - EP); **C21B 13/085** (2013.01 - EP US); **C21B 13/14** (2013.01 - EP); **C21C 5/36** (2013.01 - EP US); **C21C 5/562** (2013.01 - US); **C21C 7/0025** (2013.01 - US); **C22B 1/005** (2013.01 - EP); **C22B 1/243** (2013.01 - EP US); **C22B 1/245** (2013.01 - EP); **C22B 7/002** (2013.01 - EP); **C22B 23/023** (2013.01 - EP); **C22B 26/12** (2013.01 - EP); **C22B 47/0036** (2013.01 - EP); **C21B 2300/02** (2013.01 - EP); **Y02P 10/20** (2015.11 - EP); **Y02W 30/84** (2015.05 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022200747 A1 20220929; CA 3213335 A1 20220929; EP 4314360 A1 20240207; US 2024191316 A1 20240613

DOCDB simple family (application)
FR 2022050565 W 20220325; CA 3213335 A 20220325; EP 22717230 A 20220325; US 202218552339 A 20220325