

Title (en)

METHOD OF EXTRACTING LITHIUM FROM A RAW MATERIAL MIXTURE

Title (de)

VERFAHREN ZUR EXTRAKTION VON LITHIUM AUS EINER ROHSTOFFMISCHUNG

Title (fr)

PROCÉDÉ D'EXTRACTION DE LITHIUM À PARTIR D'UN MÉLANGE DE MATIÈRE PREMIÈRE

Publication

EP 4039835 A1 20220810 (EN)

Application

EP 21020054 A 20210205

Priority

EP 21020054 A 20210205

Abstract (en)

A method of extracting lithium from a raw material mixture, comprising the steps of introducing a raw material mixture into a rotary kiln, subjecting the raw material mixture to a thermal treatment in the rotary kiln for melting the raw material mixture and to form alkali metal chlorides in gaseous form, maintaining the melt at a temperature of $> 1150^{\circ}\text{C}$ to allow the melt to flow to a kiln outlet of the rotary kiln, drawing off the exhaust gas together with kiln dust and the gaseous alkali metal chlorides, quenching the exhaust gas together with the kiln dust and the gaseous alkali metal chlorides thereby condensing the alkali metal chlorides on the surface of the kiln dust, separating the condensed alkali metal chlorides from the exhaust gas, mixing the condensed alkali metal chlorides with water to obtain an aqueous solution of alkali metal chlorides, and separating the aqueous solution of alkali metal chlorides from the kiln dust.

IPC 8 full level

C22B 1/08 (2006.01); **C22B 26/12** (2006.01); **F27B 7/00** (2006.01)

CPC (source: EP)

C22B 1/08 (2013.01); **C22B 26/12** (2013.01); **F27B 7/20** (2013.01); **F27D 17/008** (2013.01)

Citation (applicant)

WO 2018228618 A1 20181220 - VS CHEMICKO TECHNOLOGICKA V PRAZE [CZ], et al

Citation (search report)

- [X1] US 2627452 A 19530203 - CUNNINGHAM GEORGE L
- [AD] WO 2018228618 A1 20181220 - VS CHEMICKO TECHNOLOGICKA V PRAZE [CZ], et al
- [A] GB 678978 A 19520910 - CIE GEOL ET MINIERE DES INGENI
- [A] VYAS ET AL: "Lithium extraction from indian lepidolite", RES. IND., vol. 20, 1 June 1976 (1976-06-01), pages 68 - 70, XP009505040

Citation (third parties)

Third party : PGA

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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

DOCDB simple family (publication)

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