Title (en)

PROCESS FOR RECOVERY OF LITHIUM FROM BRINE WITH ADDITION OF ALKALI

Title (de)

VERFAHREN ZUR RÜCKGEWINNUNG VON LITHIUM AUS SOLE UNTER ZUGABE VON ALKALI

Title (fr)

PROCÉDÉ DE RÉCUPÉRATION DE LITHIUM À PARTIR DE SAUMURE AVEC AJOUT D'ALCALI

Publication

EP 3898516 A1 20211027 (EN)

Application

EP 19900707 A 20190514

Priority

- US 201816224463 A 20181218
- CA 2018000240 W 20181220
- US 201916410523 A 20190513
- CA 2019000064 W 20190514

Abstract (en)

[origin: WO2020124192A1] A process for recovery of lithium ions from a lithium-bearing brine includes contacting the lithium-bearing brine with a lithium ion sieve (where that LIS includes an oxide of titanium or an oxide of niobium) in a first stirred reactor to form a lithium ion complex with the lithium ion sieve, and decomplexing the lithium ion from the lithium ion sieve in a second stirred reactor to form the lithium ion sieve and an acidic lithium salt eluate. The pH in the first reactor is maintained with an alkali such as anhydrous ammonia, ammonium hydroxide, or sodium hydroxide.

IPC 8 full level

C01D 15/00 (2006.01); **B01D 15/08** (2006.01); **B01D 61/14** (2006.01); **B01J 20/282** (2006.01); **C01D 15/04** (2006.01)

CPC (source: EP KR)

B01D 15/08 (2013.01 - EP KR); **B01D 15/3828** (2013.01 - EP); **B01D 61/14** (2013.01 - KR); **B01D 61/145** (2013.01 - EP); **B01D 61/147** (2013.01 - EP); **B01D 61/16** (2013.01 - EP); **B01J 20/282** (2013.01 - KR); **B01J 39/10** (2013.01 - EP); **B01J 47/026** (2013.01 - EP); **B01J 49/06** (2016.12 - EP); **B01J 49/53** (2016.12 - EP); **C01D 15/00** (2013.01 - KR); **C01D 15/04** (2013.01 - EP KR); B01D 2311/12 (2013.01 - EP); B01D 2311/18 (2013.01 - EP); B01D 2321/185 (2013.01 - EP); Y02P 10/20 (2015.11 - EP); Y02W 10/37 (2015.05 - EP)

Designated contracting state (EPC)

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WO 2020124192 A1 20200625; AU 2019409881 A1 20210722; BR 112021011997 A2 20210921; CA 3123943 A1 20200625; CL 2021001596 A1 20220401; CN 113439070 A 20210924; CN 113439070 B 20231003; EP 3898516 A1 20211027; EP 3898516 A4 20221026; JP 2022515389 A 20220218; JP 7455125 B2 20240325; KR 20210107722 A 20210901; MX 2021007232 A 20210923

DOCDB simple family (application)

CA 2019000064 W 20190514; AU 2019409881 A 20190514; BR 112021011997 A 20190514; CA 3123943 A 20190514; CL 2021001596 A 20210617; CN 201980092445 A 20190514; EP 19900707 A 20190514; JP 2021535116 A 20190514; KR 20217022183 A 20190514; MX 2021007232 A 20190514