

Title (en)
METHOD AND ELECTROLYSIS DEVICE FOR THE PRODUCTION OF CHLORINE, CARBON MONOXIDE AND OPTIONALLY HYDROGEN

Title (de)
VERFAHREN UND ELEKTROLYSEVORRICHTUNG ZUR HERSTELLUNG VON CHLOR, KOHLENMONOXID UND GEGEBENENFALLS WASSERSTOFF

Title (fr)
PROCÉDÉ ET DISPOSITIF D'ÉLECTROLYSE POUR LA PRODUCTION DE CHLORE, DE MONOXYDE DE CARBONE ET ÉVENTUELLEMENT D'HYDROGÈNE

Publication
EP 4041939 A1 20220817 (DE)

Application
EP 20785517 A 20201007

Priority
• EP 19201889 A 20191008
• EP 2020078057 W 20201007

Abstract (en)
[origin: WO2021069470A1] The invention relates to a method and an electrolysis device for the production of chlorine, carbon monoxide and optionally hydrogen via the electrochemical conversion of carbon dioxide and alkali chloride solution, wherein the carbon dioxide from a carbon dioxide gas source (55) is electrochemically reduced at a gas diffusion electrode, designed as a cathode (11), in an aqueous alkali-chloride-containing solution as the catholyte (17), and chlorine is simultaneously anodically generated from an aqueous alkali-chloride-containing solution as the anolyte (15a).

IPC 8 full level
C25B 1/26 (2006.01); **C25B 1/00** (2021.01); **C25B 1/23** (2021.01); **C25B 3/01** (2021.01); **C25B 3/03** (2021.01); **C25B 3/07** (2021.01); **C25B 3/09** (2021.01); **C25B 9/19** (2021.01); **C25B 9/77** (2021.01)

CPC (source: CN EP KR US)
C25B 1/00 (2013.01 - EP); **C25B 1/01** (2021.01 - KR); **C25B 1/02** (2013.01 - US); **C25B 1/04** (2013.01 - CN); **C25B 1/18** (2013.01 - CN); **C25B 1/23** (2021.01 - CN EP KR US); **C25B 1/26** (2013.01 - CN EP KR US); **C25B 3/01** (2021.01 - EP KR); **C25B 3/03** (2021.01 - EP KR); **C25B 3/07** (2021.01 - EP KR); **C25B 3/09** (2021.01 - EP KR); **C25B 9/19** (2021.01 - CN EP KR); **C25B 9/77** (2021.01 - EP KR); **C25B 11/032** (2021.01 - CN KR US); **C25B 11/036** (2021.01 - CN); **C25B 11/075** (2021.01 - KR); **C25B 11/081** (2021.01 - KR US); **C25B 15/027** (2021.01 - CN); **C25B 15/031** (2021.01 - CN); **C25B 15/08** (2013.01 - CN KR); **C25B 15/081** (2021.01 - US); **C25B 15/083** (2021.01 - KR US); **C25B 15/087** (2021.01 - CN US); **C25B 1/02** (2013.01 - KR); **Y02P 20/133** (2015.11 - 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

DOCDB simple family (publication)
EP 3805429 A1 20210414; CN 114450436 A 20220506; EP 4041939 A1 20220817; JP 2022551135 A 20221207; KR 20220079553 A 20220613; US 2024084462 A1 20240314; WO 2021069470 A1 20210415

DOCDB simple family (application)
EP 19201889 A 20191008; CN 202080070723 A 20201007; EP 2020078057 W 20201007; EP 20785517 A 20201007; JP 2022521002 A 20201007; KR 20227011276 A 20201007; US 202017766266 A 20201007