

Title (en)
MEMBRANE-COUPLED CATHODE FOR THE REDUCTION OF CARBON DIOXIDE IN ACID-BASED ELECTROLYTES WITHOUT MOBILE CATIONS

Title (de)
MEMBRAN GEKOPPELTE KATHODE ZUR REDUKTION VON KOHLENDIOXID IN SÄUREBASIERTEN ELEKTROLYTEN OHNE MOBILE KATIONEN

Title (fr)
CATHODE COUPLÉE À UNE MEMBRANE DESTINÉE À LA RÉDUCTION DE DIOXYDE DE CARBONE DANS UN ÉLECTROLYTE À BASE ACIDE DÉPOURVU DE CATIONS MOBILES

Publication
EP 3622100 A1 20200318 (DE)

Application
EP 18734473 A 20180614

Priority
• DE 102017211930 A 20170712
• EP 2018065854 W 20180614

Abstract (en)
[origin: WO2019011577A1] The invention relates to a method for the electrolysis of CO₂, wherein the electrolytic cell has a salt bridge space, having a fluid and/or dissolved acid, said electrolytic cell comprising: a cathode chamber having a cathode; a first ion exchanger membrane containing an anion exchanger and/or an anion transporter and adjacent to the cathode chamber, wherein the cathode directly contacts the first ion exchanger membrane; an anode chamber having an anode; and a diaphragm adjacent to the anode chamber; wherein a salt bridge space is also provided, which is arranged between the first ion exchanger membrane and the diaphragm. The invention also relates to an electrolysis system comprising the electrolytic cell, and the use of the electrolytic cell or the system for the electrolysis of CO₂.

IPC 8 full level
C25B 1/00 (2006.01); **C25B 3/25** (2021.01); **C25B 9/08** (2006.01); **C25B 9/10** (2006.01); **C25B 9/19** (2021.01); **C25B 9/23** (2021.01)

CPC (source: EP US)
C25B 1/00 (2013.01 - EP US); **C25B 9/19** (2021.01 - EP); **C25B 9/23** (2021.01 - EP US); **C25B 9/63** (2021.01 - US)

Citation (search report)
See references of WO 2019011577A1

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)
WO 2019011577 A1 20190117; AU 2018300589 A1 20191205; CN 110914477 A 20200324; DE 102017211930 A1 20190117; EP 3622100 A1 20200318; US 2021079538 A1 20210318

DOCDB simple family (application)
EP 2018065854 W 20180614; AU 2018300589 A 20180614; CN 201880045988 A 20180614; DE 102017211930 A 20170712; EP 18734473 A 20180614; US 201816629728 A 20180614