

Title (en)

METHOD AND REACTOR FOR ELECTROCHEMICALLY REDUCING CARBON DIOXIDE

Title (de)

VERFAHREN UND REAKTOR ZUR ELEKTROCHEMISCHEN REDUKTION VON KOHLENSTOFFDIOXID

Title (fr)

PROCÉDÉ ET RÉACTEUR PERMETTANT UNE RÉDUCTION ÉLECTROCHIMIQUE DU DIOXYDE DE CARBONE

Publication

**EP 3325692 A1 20180530 (EN)**

Application

**EP 16757367 A 20160721**

Priority

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Abstract (en)

[origin: WO2017014635A1] The invention is directed to a method for electrochemically reducing carbon dioxide, and to an electrochemical reactor. The method of the invention for electrochemically reducing carbon dioxide, comprises a) introducing a water feed to an anode compartment of an electrochemical reactor, said anode compartment comprising an anode; b) introducing a carbon dioxide feed to a cathode compartment of an electrochemical reactor, said cathode compartment comprising a cathode; c) applying an electrical potential between the anode and the cathode in the electrochemical reactor sufficient for the cathode to reduce carbon dioxide into a reduced carbon dioxide product or product mixture, wherein said anode compartment is separated from said cathode compartment by a separator comprising a bipolar membrane, a charge-mosaic membrane, or a layered mixture of anion and cation exchange resins, preferably the separator comprises a bipolar membrane, and wherein the pressure in the electrochemical reactor is 20 bara or more.

IPC 8 full level

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CPC (source: EP)

**C25B 3/25** (2021.01); **C25B 9/19** (2021.01); **C25B 9/23** (2021.01)

Citation (search report)

See references of WO 2017014635A1

Cited by

CN111910211A; NL2031327B1; EP3964607A1; US11781231B2; WO2023177298A3

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