

Title (en)

METHOD FOR OPERATING AN ELECTROLYSIS PLANT, AND ELECTROLYSIS PLANT

Title (de)

VERFAHREN ZUM BETREIBEN EINER ELEKTROLYSEANLAGE UND ELEKTROLYSEANLAGE

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UNE INSTALLATION D'ÉLECTROLYSE ET INSTALLATION D'ÉLECTROLYSE

Publication

EP 4334498 A1 20240313 (DE)

Application

EP 22727306 A 20220504

Priority

- EP 21181396 A 20210624
- EP 2022061963 W 20220504

Abstract (en)

[origin: CA3225319A1] The invention relates to a method for operating an electrolysis plant having an electrolyser for generating hydrogen and oxygen as product gases, and a control unit. At least the hydrogen product gas, which also contains oxygen as an external gas, is compressed. According to the invention, the energy required in the purification of the foreign gas in the product gas of the electrolysis plant can be reduced by making optimum use of the heating of the product gas by the compression process, whereby the hydrogen product gas is subsequently fed to a recombiner which contains a catalyst in which the oxygen recombines with the hydrogen to form water. The invention also relates to an electrolysis plant designed for efficient product gas purification, by means of which hydrogen purified from oxygen as an impurity gas can be produced as a product gas.

IPC 8 full level

C25B 1/04 (2021.01); **B01D 53/26** (2006.01); **C01B 3/50** (2006.01); **C25B 15/08** (2006.01)

CPC (source: EP)

C01B 3/58 (2013.01); **C25B 1/04** (2013.01); **C25B 15/085** (2021.01)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4108807 A1 20221228; AU 2022300129 A1 20231207; CA 3225319 A1 20221229; CN 117545877 A 20240209; EP 4334498 A1 20240313; WO 2022268391 A1 20221229

DOCDB simple family (application)

EP 21181396 A 20210624; AU 2022300129 A 20220504; CA 3225319 A 20220504; CN 202280044284 A 20220504; EP 2022061963 W 20220504; EP 22727306 A 20220504