

Title (en)
APPARATUS AND METHOD FOR CAPTURING CARBON DIOXIDE FROM COMBUSTION EXHAUST GAS AND GENERATING ELECTRIC ENERGY BY MEANS OF MCFC SYSTEMS

Title (de)
VORRICHTUNG UND VERFAHREN ZUM ERFASSEN VON KOHLENDIOXID AUS VERBRENNUNGSABGAS UND ZUM ERZEUGEN VON ELEKTRISCHER ENERGIE MITTELS MCFC-SYSTEMEN

Title (fr)
APPAREIL ET PROCÉDÉ PERMETTANT DE CAPTURER DU DIOXYDE DE CARBONE À PARTIR D UN GAZ D ÉCHAPPEMENT DE COMBUSTION ET DE GÉNÉRER DE L ÉNERGIE ÉLECTRIQUE AU MOYEN DE SYSTÈMES MCFC

Publication
EP 2356715 A1 20110817 (EN)

Application
EP 08876074 A 20081015

Priority
IT 2008000647 W 20081015

Abstract (en)
[origin: WO2010044113A1] An apparatus (1) for capturing carbon dioxide (CO₂) from combustion exhaust gas and generating electrical energy by means of MCFC systems, which includes : at least one molten carbonate fuel cell (4), having a cathodic compartment (5) and an anodic compartment (6); a supply line (7) for supplying exhaust gas to the cathodic compartment; a CO₂ separation system (8), connected to an outlet of the anodic compartment (6) and designed to separate CO₂ from a flow of anodic gas coming from the anodic compartment; and a heat-exchange assembly (11) set along the exhaust gas supply line (7) for controlling, in synergism with a cathodic recirculation line (21), the temperature of the oxidizing gas supplied to the cathodic compartment (5).

IPC 8 full level
H01M 8/04 (2006.01); **H01M 8/06** (2006.01)

CPC (source: EP)
H01M 8/04014 (2013.01); **H01M 8/04074** (2013.01); **H01M 8/04097** (2013.01); **H01M 8/04111** (2013.01); **H01M 8/0435** (2013.01); **H01M 8/0668** (2013.01); **H01M 2008/147** (2013.01); **Y02E 60/50** (2013.01)

Citation (search report)
See references of WO 2010044113A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2010044113 A1 20100422; EP 2356715 A1 20110817

DOCDB simple family (application)
IT 2008000647 W 20081015; EP 08876074 A 20081015