

Title (en)
FUEL CELL-BASED SYSTEM FOR GENERATING ELECTRICAL POWER

Title (de)
SYSTEM AUF BRENNSTOFFZELLENBASIS ZUR ERZEUGUNG ELEKTRISCHEN STROMS

Title (fr)
SYSTÈME À BASE DE PILE À COMBUSTIBLE DE GÉNÉRATION DE PUISSANCE ÉLECTRIQUE

Publication
EP 2220717 A1 20100825 (EN)

Application
EP 08861995 A 20081215

Priority
• US 2008086757 W 20081215
• US 1428507 P 20071217

Abstract (en)
[origin: WO2009079426A1] The present invention relates to a solid oxide fuel cell system. The system includes a pre-reforming reactor, a reforming reactor, a hydrogen separation apparatus and a solid oxide fuel cell. The anode exhaust outlet of the solid oxide fuel cell is operatively connected to an inlet of the pre-reforming reactor so anode exhaust from the fuel cell may enter the pre-reforming reactor. The pre-reforming reactor also has an inlet for a hydrocarbon feed precursor. The reforming reactor is operatively coupled to the pre-reforming reactor so that a feed produced in the pre-reforming reactor from the feed precursor may be fed to the reforming reactor. The reforming reactor is operatively connected to the hydrogen separation apparatus so that hydrogen produced in the reforming reactor may be separated from the reformed product gases. The anode inlet of the solid oxide fuel cell is operatively connected to the hydrogen separation apparatus so hydrogen may be fed from the hydrogen separation apparatus as fuel to the solid oxide fuel cell.

IPC 8 full level
H01M 8/06 (2006.01)

CPC (source: EP)
C01B 3/38 (2013.01); **C01B 3/382** (2013.01); **H01M 8/04007** (2013.01); **H01M 8/04097** (2013.01); **H01M 8/0612** (2013.01); **H01M 8/0662** (2013.01); **C01B 2203/0233** (2013.01); **C01B 2203/0261** (2013.01); **C01B 2203/0283** (2013.01); **C01B 2203/041** (2013.01); **C01B 2203/043** (2013.01); **C01B 2203/0475** (2013.01); **C01B 2203/066** (2013.01); **C01B 2203/0827** (2013.01); **C01B 2203/0833** (2013.01); **C01B 2203/1058** (2013.01); **C01B 2203/1258** (2013.01); **C01B 2203/142** (2013.01); **C01B 2203/148** (2013.01); **C01B 2203/1604** (2013.01); **H01M 2008/1293** (2013.01); **Y02E 60/50** (2013.01)

Citation (search report)
See references of WO 2009079427A1

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

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
WO 2009079426 A1 20090625; AU 2008338500 A1 20090625; AU 2008338501 A1 20090625; CN 101946355 A 20110112; CN 101946356 A 20110112; EP 2220712 A1 20100825; EP 2220717 A1 20100825; WO 2009079427 A1 20090625; WO 2009079427 A9 20100902

DOCDB simple family (application)
US 2008086755 W 20081215; AU 2008338500 A 20081215; AU 2008338501 A 20081215; CN 200880126740 A 20081215; CN 200880126741 A 20081215; EP 08861995 A 20081215; EP 08862643 A 20081215; US 2008086757 W 20081215