

Title (en)

SYSTEM AND METHOD FOR MANAGEMENT OF GAS AND WATER IN FUEL CELL SYSTEM

Title (de)

SYSTEM UND METHODE ZUR VERWALTUNG VON GAS UND WASSER IN BRENNSTOFFZELLENSYSTEM

Title (fr)

SYSTEME ET PROCEDE DE GESTION DU GAZ ET DE L'EAU DANS UN SYSTEME DE PILE A COMBUSTIBLE

Publication

EP 1543576 A2 20050622 (EN)

Application

EP 03737767 A 20030618

Priority

- CA 0300901 W 20030618
- CA 2404685 A 20020923

Abstract (en)

[origin: WO2004027908A2] A fuel cell system has: a fuel cell having a first reactant inlet, a first reactant outlet, a second reactant inlet, a second reactant outlet, and optionally a coolant inlet and coolant outlet. A first reactant supply subsystem supplies a first reactant incoming stream to the first reactant inlet of the fuel cell. A second reactant supply subsystem supplies a second reactant incoming stream to the second reactant inlet of the fuel cell. A first reactant recirculation subsystem recirculates at least a portion of the first reactant exhaust stream from the first reactant outlet to a regenerative dryer subsystem in which one portion of the heat and moisture in first reactant exhaust stream is transferred to one of the first reactant incoming stream in the first reactant supply subsystem and the second reactant incoming stream in the second reactant supply subsystem. Another portion of the heat and moisture is transferred to the other stream. A method of controlling reactant and water in a fuel cell system is also disclosed.

IPC 1-7

H01M 8/04

IPC 8 full level

H01M 8/00 (2006.01); **H01M 8/04** (2006.01)

CPC (source: EP)

H01M 8/04007 (2013.01); **H01M 8/04141** (2013.01); **H01M 8/04164** (2013.01); **H01M 8/04097** (2013.01); **H01M 2250/20** (2013.01); **Y02E 60/50** (2013.01)

Citation (search report)

See references of WO 2004027908A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004027908 A2 20040401; **WO 2004027908 A3 20050106**; AU 2003245138 A1 20040408; CN 1326277 C 20070711; CN 1685549 A 20051019; EP 1543576 A2 20050622; JP 2006500737 A 20060105

DOCDB simple family (application)

CA 0300901 W 20030618; AU 2003245138 A 20030618; CN 03822684 A 20030618; EP 03737767 A 20030618; JP 2004536707 A 20030618