

Title (en)
Catalytic combustor and fuel cell system

Title (de)
Katalytischer Brenner und Brennstoffzellensystem

Title (fr)
Brûleur catalytique et système de pile à combustible

Publication
EP 1458045 A2 20040915 (EN)

Application
EP 03028645 A 20031215

Priority
JP 2002374440 A 20021225

Abstract (en)
A catalytic combustor is provided with a housing supplied with mixed gas including exhaust fuel gas from a fuel electrode of a fuel cell and exhaust oxidizer gas from an oxidizer electrode of the fuel cell, and a catalyst combusting the mixed gas. At an area upstream of the catalyst, an inner periphery surface of the housing has a continuous shape, and at least one of the exhaust fuel gas and the exhaust oxidizer gas is supplied to the housing in a way to generate swirl flow in the mixed gas so as to swirl along the inner peripheral surface. Such a catalytic combustor is applied to a fuel cell system provided with a fuel cell having a fuel electrode and an oxidizer electrode. <IMAGE>

IPC 1-7
H01M 8/06; B01J 19/24; F23G 7/06; F23C 11/00

IPC 8 full level
F23C 13/00 (2006.01); **F23D 14/64** (2006.01); **H01M 8/04** (2006.01); **H01M 8/06** (2006.01)

CPC (source: EP US)
F23C 13/00 (2013.01 - EP US); **F23D 14/64** (2013.01 - EP US); **F23D 2900/14021** (2013.01 - EP US)

Cited by
DE102005059481B3; CN111156532A; WO2004105165A3

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)
US 2004126724 A1 20040701; EP 1458045 A2 20040915; JP 2004207025 A 20040722

DOCDB simple family (application)
US 70477703 A 20031112; EP 03028645 A 20031215; JP 2002374440 A 20021225