

Title (en)

Use of insert gases for shielding oxidiser from fuel

Title (de)

Verwendung von Inertgasen zur Abschirmung von Oxidator und Brennstoff

Title (fr)

Utilisation de gaz inertes destinés à isoler l'oxydant du combustible

Publication

**EP 2014978 A1 20090114 (DE)**

Application

**EP 07013518 A 20070710**

Priority

EP 07013518 A 20070710

Abstract (en)

The method involves injecting fuel (5) i.e. hydrogen, through a fuel nozzle (1), and simultaneously injecting an inert gas (6) in the surroundings of the injected fuel, into a combustion chamber of a gas turbine such that the fuel is separated spatially from an oxidizer (7) by the inert gas until an ignitable mixture of the fuel is produced for controlling combustion of the fuel. The ignitable mixture is produced by injection of the oxidizer spatially from the fuel nozzle into the chamber. The inert gas is selected from a group containing nitrogen, steam, carbon dioxide, noble gas or mixture.

Abstract (de)

Es wird ein Verfahren zum Schutz eines Brenners vor zu starker Erwärmung bei der Verbrennung eines Brennstoffes (5) in einer Brennkammer zur Verfügung gestellt, wobei der Brennstoff (5) durch eine Brennstoffdüse (1) und gleichzeitig ein Inertgas in der Umgebung des eingedüsten Brennstoffes so in die Brennkammer eingedüst werden, dass bis zur Herstellung eines zündfähigen Gemisches der Brennstoff (5) von einem Oxidator (7) durch das Inertgas (6) räumlich getrennt ist.

IPC 8 full level

**F23D 11/36** (2006.01); **F23D 14/78** (2006.01); **F23R 3/28** (2006.01)

CPC (source: EP US)

**F23D 11/36** (2013.01 - EP US); **F23D 14/78** (2013.01 - EP US); **F23R 3/283** (2013.01 - EP US); **F23C 2900/07022** (2013.01 - EP US); **F23D 2214/00** (2013.01 - EP US); **F23L 2900/07002** (2013.01 - EP US)

Citation (search report)

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- [Y] US 2002090587 A1 20020711 - PRIBISH VINCENT R [US]
- [X] EP 0473906 A1 19920311 - CORNING INC [US], et al
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EP2653698A1; EP2520857A1

Designated contracting state (EPC)

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 2014978 A1 20090114**; CN 101772674 A 20100707; EP 2162678 A1 20100317; US 2010186417 A1 20100729; WO 2009007293 A1 20090115

DOCDB simple family (application)

**EP 07013518 A 20070710**; CN 200880101383 A 20080703; EP 08761415 A 20080703; EP 2008058544 W 20080703; US 66597008 A 20080703