Title (en)

PREMIX BURNER FOR A GAS TURBINE ASSEMBLY FOR POWER PLANT SUITABLE TO BE FED WITH COMMON AND HIGHLY REACTIVE FUELS, METHOD FOR OPERATING THIS BURNER AND GAS TURBINE ASSEMBLY FOR POWER PLANT COMPRISING THIS BURNER

Title (de)

VORMISCHBRENNER FÜR EINE GASTURBINENANORDNUNG FÜR EIN KRAFTWERK ZUR VERSORGUNG MIT ÜBLICHEN UND HOCHREAKTIVEN BRENNSTOFFEN, VERFAHREN ZUM BETRIEB DIESES BRENNERS SOWIE GASTURBINENANORDNUNG FÜR EIN KRAFTWERK MIT DIESEM BRENNER

Title (fr)

BRÛLEUR DE PRÉMÉLANGE POUR UN ENSEMBLE DE TURBINE À GAZ DE CENTRALE ÉLECTRIQUE ADAPTÉ POUR ÊTRE ALIMENTÉ AVEC DES COMBUSTIBLES COMMUNS ET TRÈS RÉACTIFS, SON PROCÉDÉ DE FONCTIONNEMENT ET ENSEMBLE DE TURBINE À GAZ DE CENTRALE ÉLECTRIQUE COMPRENANT CE BRÛLEUR

Publication

EP 4202308 A1 20230628 (EN)

Application

EP 21216659 A 20211221

Priority

EP 21216659 A 20211221

Abstract (en)

A premix burner for a gas turbine assembly for a power plant, the premix burner (34) comprising: a swirler (35), having an upstream end fed by compressed air and a downstream end, the swirler being configured for swirling the air flow and being provided with premix injection nozzles (36) connected to a first gas fuel source; a casing (37) having a first end connected to the downstream end of the swirler (35) and a second end; a pilot lance (38) axially extending the swirler (35) and having a downstream end housed in the casing (37), the downstream end of the pilot lance (38) being provided with pilot injection nozzles connected to the first gas fuel source; a collar (39) having upstream end connected to second end of the casing (37) and a downstream end facing a combustion chamber. The collar (39) is provided with downstream injection nozzles (40) connected to a second gas fuel source; the second gas fuel source being a highly reactive H2-based fuel gas source.

IPC 8 full level

F23R 3/46 (2006.01); **F23R 3/14** (2006.01); **F23R 3/28** (2006.01); **F23R 3/34** (2006.01); **F23R 3/36** (2006.01)

CPC (source: CN EP)

F23R 3/14 (2013.01 - EP); **F23R 3/286** (2013.01 - CN EP); **F23R 3/346** (2013.01 - EP); **F23R 3/36** (2013.01 - EP); **F23R 3/46** (2013.01 - EP); F23C 2900/07002 (2013.01 - EP); F23C 2900/9901 (2013.01 - EP); F23D 2900/00008 (2013.01 - EP); F23D 2900/00015 (2013.01 - EP); F23R 2900/00002 (2013.01 - EP); F23R 2900/03341 (2013.01 - EP); F23R 2900/03343 (2013.01 - EP)

Citation (search report)

- [XY] US 2018216828 A1 20180802 - JOHANSSON NICKLAS [SE], et al
- [YA] US 2019162414 A1 20190530 - OGATA MASAHIRO [JP], et al
- [Y] US 2009081599 A1 20090326 - BERNERO STEFANO [CH], et al
- [X] US 2004226297 A1 20041118 - GRIFFIN TIMOTHY [CH], et al
- [X] US 2012047907 A1 20120301 - ZAJADATZ MARTIN [DE], et al
- [X] US 6210152 B1 20010403 - HAFFNER KEN [CH], et al
- [X] US 2013224672 A1 20130829 - CARRONI RICHARD [CH], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4202308 A1 20230628; CN 116293798 A 20230623

DOCDB simple family (application)

EP 21216659 A 20211221; CN 202211645813 A 20221221