

Title (en)

METHOD FOR COMPLETE, LOW-NOISE COMBUSTION OF A FUEL-AIR MIXTURE AND BURNER THEREFOR

Title (de)

VERFAHREN ZUR VOLLSTÄNDIGEN UND GERÄUSCHREDUZIERTEN VERBRENNUNG EINES BRENNSTOFF-LUFT-GEMISCHES SOWIE BRENNER HIERZU

Title (fr)

PROCÉDÉ DE COMBUSTION TOTALE ET À BRUIT RÉDUIT D'UN MÉLANGE COMBUSTIBLE-AIR, ET BRÛLEUR CORRESPONDANT

Publication

**EP 2856027 B1 20160713 (DE)**

Application

**EP 13722468 A 20130515**

Priority

- DE 102012104741 A 20120601
- EP 2013060032 W 20130515

Abstract (en)

[origin: WO2013178465A2] The invention relates to a method for the complete, low-noise combustion of a fuel-air mixture using a burner (11) that has a feed line (18) for the air-fuel mixture in a housing (14) upstream of a burner side, that accommodates a woven membrane (16) downstream on an exit side of the housing (14) and that has a flame backflash barrier (17) upstream of the woven membrane (16). Said woven membrane (16) has through-holes (32) arranged in relation to one another in a hole grid pattern and interspaced at regular intervals in at least one X- or Y-direction on an extension plane of the woven membrane (16). The flame backflash barrier (17) has through-holes (33) arranged in relation to one another in a hole grid pattern and interspaced at regular intervals in at least one X- or Y-direction on an extension plane. The flame backflash barrier (17) is positioned upstream of the woven membrane (16) at a distance therefrom, thus forming a free flow chamber (26). In order to form a flame matrix (27) consisting of individual flames (28) and continuous flames (29) downstream of the woven membrane (16), the hole grid pattern of said membrane (16) and the hole grid pattern of the flame backflash barrier (17) are positioned in such a way in relation to one another that the hole grid pattern of the woven membrane (16) and the hole grid pattern of the flame backflash barrier (17) can be transferred into an aligned position or a rotated arrangement relative to one another by rotating and/or displacing the flame backflash barrier (17) and/or the woven membrane (16).

IPC 8 full level

**F23D 14/58** (2006.01); **F23D 14/82** (2006.01)

CPC (source: EP)

**F23D 14/58** (2013.01); **F23D 14/82** (2013.01); **F23D 2203/102** (2013.01); **F23D 2203/105** (2013.01); **F23D 2203/106** (2013.01); **F23D 2900/00003** (2013.01)

Cited by

CN108571724A; WO2023057937A1

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

DOCDB simple family (publication)

**WO 2013178465 A2 20131205**; **WO 2013178465 A3 20140313**; DE 102012104741 A1 20131205; EP 2856027 A2 20150408; EP 2856027 B1 20160713

DOCDB simple family (application)

**EP 2013060032 W 20130515**; DE 102012104741 A 20120601; EP 13722468 A 20130515