Title (en)
PARTIALLY TRANSITIONED FLAME START-UP OF A PERFORATED FLAME HOLDER

Title (de)
TEILWEISE ÜBERGELEITETER FLAMMENSTART EINES PERFORIERTEN FLAMMENHALTERS

Title (fr)
DÉMARRAGE DE FLAMME À TRANSITION PARTIELLE D'UN STABILISATEUR DE FLAMME PERFORÉ

Publication
EP 3325877 A1 20180530 (EN)

Application
EP 16847110 A 20160912

Priority
- US 201562218462 P 20150914
- US 2016051343 W 20160912

Abstract (en)
[origin: WO2017048638A1] A combustion system includes a perforated flame holder configured to hold a main combustion reaction substantially between input and output faces thereof. A main fuel nozzle is positioned to emit a main fuel stream toward the input face. An igniter assembly is configured to ignite a preheat flame supported by the main fuel stream between the main fuel nozzle and the perforated flame holder, and to selectably control a degree of ignition of the fuel stream by the preheat flame. During a start-up of the combustion system, the perforated flame holder is preheated by the preheat flame. When the flame holder reaches a start-up temperature, the preheat flame is shifted from fully igniting to partially igniting the fuel stream, allowing fuel and oxidant to reach the flame holder. A flame is ignited in the flame holder while the preheat flame burns. The preheat flame is then released.

IPC 8 full level
F23C 5/06 (2006.01); **F23D 14/14** (2006.01); **F23D 14/22** (2006.01); **F23N 1/02** (2006.01); **F23N 5/02** (2006.01)

CPC (source: EP US)
F23C 5/06 (2013.01 - EP US); **F23D 14/145** (2013.01 - EP US); **F23D 14/22** (2013.01 - EP US); **F23D 14/56** (2013.01 - US);
F23D 23/00 (2013.01 - US); **F23N 1/02** (2013.01 - EP US); **F23N 5/02** (2013.01 - EP US); **F23N 5/082** (2013.01 - US); **F23Q 9/00** (2013.01 - US);
F23N 2227/02 (2020.01 - US); F23N 2227/10 (2020.01 - US); F23N 2227/26 (2020.01 - US); F23N 2237/02 (2020.01 - US)

Cited by
EP3449183B1

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

DOCDB simple family (publication)
WO 2017048638 A1 20170323; CN 107923613 A 20180417; CN 107923613 B 20190917; EP 3325877 A1 20180530; EP 3325877 A4 20190320; US 2018202653 A1 20180719

DOCDB simple family (application)
US 2016051343 W 20160912; CN 201680049653 A 20160912; EP 16847110 A 20160912; US 201815919651 A 20180313