

Title (en)

BURNER, WATER HEATING APPARATUS, AND METHOD FOR CONTROLLING BURNER

Title (de)

BRENNER, WASSERERHITZUNGSVORRICHTUNG UND VERFAHREN ZUR STEUERUNG EINES BRENNERS

Title (fr)

BRÛLEUR, CHAUDIÈRE, ET PROCÉDÉ DE COMMANDE DE BRÛLEUR

Publication

**EP 4023939 A3 20221012 (EN)**

Application

**EP 21218239 A 20211229**

Priority

KR 20200188127 A 20201230

Abstract (en)

Disclosed is a burner comprising a fuel providing part configured to provide a fuel for a combustion reaction; an air providing part configured to send air for the combustion reaction; an ignition part configured to cause a spark such that the fuel and air provided are ignite; and a processor electrically connected to the fuel providing part, the air providing part, and the ignition part, wherein the processor is configured to: control the fuel providing part and the ignition part to provide the fuel for ignition and cause the spark; and control the air providing part such that an flow rate of the air provided at an ignition time point, at which the spark is caused and ignition occurs, is lower than a flow rate of the air provided at an air provision time point corresponding to a specific delay time after the ignition time point.

IPC 8 full level

**F23N 1/02** (2006.01); **F23D 11/00** (2006.01); **F23D 11/42** (2006.01)

CPC (source: EP KR)

**F23D 11/001** (2013.01 - EP); **F23D 11/408** (2013.01 - EP); **F23D 11/42** (2013.01 - EP KR); **F23D 11/46** (2013.01 - KR); **F23N 1/022** (2013.01 - EP KR); **F23Q 3/008** (2013.01 - EP); **F24H 1/28** (2013.01 - KR); **F24H 9/1836** (2013.01 - KR); **F23C 2900/03004** (2013.01 - EP); **F23D 2202/00** (2013.01 - KR); **F23N 2227/02** (2020.01 - EP); **F23N 2227/36** (2020.01 - EP); **F23N 2239/06** (2020.01 - EP); **F23N 2241/04** (2020.01 - EP)

Citation (search report)

- [XA] US 2009313975 A1 20091224 - MCCOMBS AARON [US]
- [XA] GB 2182764 A 19870520 - BRITISH GAS CORP, et al
- [A] GB 2201276 A 19880824 - BRITISH GAS PLC

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)

**EP 4023939 A2 20220706**; **EP 4023939 A3 20221012**; KR 102611920 B1 20231211; KR 20220096022 A 20220707

DOCDB simple family (application)

**EP 21218239 A 20211229**; KR 20200188127 A 20201230