

Title (en)
SOLID FUEL BURNER

Title (de)
FESTBRENNSTOFF-BRENNER

Title (fr)
BRÛLEUR DE COMBUSTIBLE SOLIDE

Publication
EP 2677238 A1 20131225 (EN)

Application
EP 12747032 A 20120213

Priority
• JP 2011033023 A 20110218
• JP 2012053255 W 20120213

Abstract (en)

The present invention is to provide a solid fuel burner for suppressing collision of fuel particles to an inner wall of a fuel nozzle, increasing fuel concentration and oxygen concentration in an outer circumferential portion in the fuel nozzle while reducing abrasion of the fuel nozzle, thereby enabling stable combustion. A solid fuel burner 42 of the present invention comprising a fuel nozzle 11 for ejecting a mixed fluid of solid fuel and carrier gas therefor, an oxygen-containing gas nozzle 13, 14 arranged outside the fuel nozzle for ejecting oxygen-containing gas, and at least one oxygen-containing gas addition nozzle 12 projected and installed in the fuel nozzle for ejecting oxygen-containing gas having a velocity component in a circumferential direction of the fuel nozzle, wherein the oxygen-containing gas addition nozzle 12 has a nozzle outlet 12A, 12B, 12C in the circumferential direction of the fuel nozzle, characterized in that: the oxygen-containing gas addition nozzle 12 is shaped so as to contract a projected section thereof in an axial direction of the burner toward a central axis of the burner.

IPC 8 full level

F23D 1/00 (2006.01)

CPC (source: EP KR)

F23C 99/00 (2013.01 - KR); **F23D 1/00** (2013.01 - EP KR); **F23L 7/00** (2013.01 - KR); **F23C 2900/06043** (2013.01 - EP);
F23D 2201/10 (2013.01 - EP); **F23D 2201/20** (2013.01 - EP)

Cited by

CN110848672A; CN108885063A; EA035094B1; EP2868969A4; US9822968B2; WO2016162602A1

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)

EP 2677238 A1 20131225; **EP 2677238 A4 20170125**; **EP 2677238 B1 20181205**; JP 2012172865 A 20120910; JP 5566317 B2 20140806;
KR 101494993 B1 20150223; KR 20130103806 A 20130924; MY 170750 A 20190827; WO 2012111606 A1 20120823

DOCDB simple family (application)

EP 12747032 A 20120213; JP 2011033023 A 20110218; JP 2012053255 W 20120213; KR 20137021019 A 20120213;
MY PI2013002931 A 20120213