

Title (en)

INNER AND OUTER FLAME COMPOUND TYPE MULTISTAGE BURNER

Title (de)

MEHRSTUFIGE BRENNER MIT INNEN- UND AUSSENFLAMMENVERBINDUNG

Title (fr)

BRÛLEUR MULTIÉTAGE DE TYPE COMPOSITE À FLAMME INTÉRIEURE ET EXTÉRIEURE

Publication

EP 2781835 A4 20150401 (EN)

Application

EP 12849993 A 20120917

Priority

- KR 20110118181 A 20111114
- KR 2012007396 W 20120917

Abstract (en)

[origin: EP2781835A1] The present invention relates to an inner and outer frame compound type multistage burner using an outer burner and an inner burner arranged in a center of the inside of the outer burner, and in particular, to an inner and outer frame compound type multistage burner which improves a turn-down ratio and a proportional control characteristic and enables safe ignition and complete combustion by providing a compound flame using the inner flame generated from the outer burner to the inside and the outer flame generated from the inner burner to the outside.

IPC 8 full level

F23D 14/04 (2006.01); **F23D 14/28** (2006.01); **F23N 1/00** (2006.01)

CPC (source: EP KR)

F23D 14/04 (2013.01 - KR); **F23D 14/06** (2013.01 - EP); **F23D 14/28** (2013.01 - KR); **F23D 14/583** (2013.01 - EP); **F23D 23/00** (2013.01 - EP); **F23N 1/00** (2013.01 - KR); **F23D 2203/1012** (2013.01 - EP); **F23D 2900/14062** (2013.01 - EP)

Citation (search report)

- [XA] US 2007218414 A1 20070920 - HARNEIT UWE [US]
- [XA] JP H10220715 A 19980821 - TOHO GAS KK, et al
- [A] EP 2211097 A2 20100728 - BUTSIR S L [ES]
- See references of WO 2013073772A1

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 2781835 A1 20140924; EP 2781835 A4 20150401; CN 103492806 A 20140101; KR 101310535 B1 20130923; KR 20130052868 A 20130523;
RU 2013146204 A 20150620; WO 2013073772 A1 20130523

DOCDB simple family (application)

EP 12849993 A 20120917; CN 201280019451 A 20120917; KR 20110118181 A 20111114; KR 2012007396 W 20120917;
RU 2013146204 A 20120917