

Title (en)
Combustor and combustion apparatus

Title (de)
Brennkammer und Verbrennungsvorrichtung

Title (fr)
Chambre de combustion et appareil à combustion

Publication
EP 0478305 B1 19971203 (EN)

Application
EP 91308745 A 19910925

Priority
JP 25640490 A 19900926

Abstract (en)
[origin: EP0478305A2] A combustor has a premixing type combustion burner (30) which has an atomizer (40) for ejecting a liquid fuel together with combustion air to atomize the liquid fuel. The atomizer is comprised of an inner shell (45) to an inner peripheral surface of which the liquid fuel is supplied, an outer shell (41) defining a passage for the combustion air running substantially straight between the outer shell itself and an outer peripheral surface of the inner shell, and a swirling-flow guide plate (50) for swirling the combustion air passed into the inner shell, while directing it in a downstream direction. The combustor further includes a resistor (35) abruptly decreased in sectional area downstream and provided substantially downstream of the center of the swirling flow and in the vicinity of an outlet of the premixing type combustion burner for providing a resistance to a premixture ejected from the premixing type combustion burner. <IMAGE>

IPC 1-7
F23D 11/10; **F23C 7/00**; **F23D 23/00**; **F23K 5/20**; **F23J 15/00**; **F23L 7/00**; **F23R 3/16**; **F02C 7/224**

IPC 8 full level
F23D 11/12 (2006.01); **F23D 11/00** (2006.01); **F23D 11/40** (2006.01); **F23D 23/00** (2006.01); **F23J 15/04** (2006.01); **F23K 5/20** (2006.01); **F23L 7/00** (2006.01); **F23R 3/14** (2006.01); **F23R 3/16** (2006.01); **F23R 3/18** (2006.01); **F23R 3/30** (2006.01)

CPC (source: EP)
F23D 11/005 (2013.01); **F23D 11/402** (2013.01); **F23D 23/00** (2013.01); **F23J 15/04** (2013.01); **F23K 5/20** (2013.01); **F23L 7/00** (2013.01); **F23R 3/16** (2013.01); **F23D 2900/11101** (2013.01)

Citation (examination)

- EP 0233971 A1 19870902 - NTG NUKLEARTECHNIK GMBH & CO K [DE]
- DE 3125319 A1 19830120 - HESSEMER DIETER
- US 1876168 A 19320906 - ADAMS RICHARDSON EDWARD
- US 3977427 A 19760831 - REED ROBERT D, et al
- US 4323043 A 19820406 - ALDERSON JOHN M
- US 4399107 A 19830816 - BOSE RANENDRA K [US]

Cited by
EP0913631A3; CN110199153A; FR2765952A1; CN111473365A; EP0660038A3; US5647538A; EP0692674A3; EP0675322A3; US11460188B2; US10359213B2; US10386062B2; DE102007009922A1; US10808927B2; WO9739284A1; WO2018160856A1; WO9830841A1; US9429324B2; US11906160B2; US10823401B2; US9366442B2; US11415316B2

Designated contracting state (EPC)
CH DE FR GB LI

DOCDB simple family (publication)
EP 0478305 A2 19920401; **EP 0478305 A3 19931124**; **EP 0478305 B1 19971203**; DE 69128333 D1 19980115; DE 69128333 T2 19980709; JP 2942336 B2 19990830; JP H04136603 A 19920511

DOCDB simple family (application)
EP 91308745 A 19910925; DE 69128333 T 19910925; JP 25640490 A 19900926