

Title (en)
Gas turbine combustor

Title (de)
Gasturbinenbrennkammer

Title (fr)
Chambre de combustion de turbine à gaz

Publication
EP 2423600 A3 20171025 (EN)

Application
EP 11177195 A 20110811

Priority
JP 2010190336 A 20100827

Abstract (en)
[origin: EP2423600A2] In a gas turbine combustor, mixing of a fuel and air is accelerated in a mixing chamber of a burner as well as in air introduction passages provided in a wall of the mixing chamber, whereby NOx emissions from premixed combustion are reduced while at the same time, ignition characteristics and flame propagation characteristics improve. The gas turbine combustor includes a plurality of combustors 10, a spark plug 13, and a cross-fire tube 15 that propagates a flame between the combustors 10. Each combustor 10 includes the burner 30 equipped with a fuel nozzle and the mixing chamber wall 32 forming the mixing chamber 31. A plurality of air introduction holes 35, 36 for introducing combustion air, along with the fuel from the fuel nozzle, into the mixing chamber 31, are provided in the mixing chamber wall 32. The combustion air and fuel jetted from the air introduction hole 35 into the mixing chamber 31 are mixed in the form of a mixture "m1", "m2" and directed towards the spark plug 13 and the cross-fire tube 15.

IPC 8 full level
F23R 3/48 (2006.01); **F23R 3/28** (2006.01); **F23R 3/34** (2006.01)

CPC (source: EP US)
F23R 3/286 (2013.01 - EP US); **F23R 3/343** (2013.01 - EP US); **F23R 3/48** (2013.01 - EP US); **F23D 2207/00** (2013.01 - EP US)

Citation (search report)

- [Y] EP 2065643 A2 20090603 - HITACHI LTD [JP]
- [Y] EP 1655456 A2 20060510 - HITACHI LTD [JP]
- [Y] EP 2163819 A2 20100317 - HITACHI LTD [JP]
- [A] US 2004000146 A1 20040101 - INOUE HIROSHI [JP], et al
- [A] GB 2004050 A 19790321 - WESTINGHOUSE ELECTRIC CORP
- [A] JP 2009052795 A 20090312 - HITACHI LTD
- [A] US 2010170248 A1 20100708 - YOSHIDA SHOUHEI [JP], et al
- [A] EP 1489358 A2 20041222 - HITACHI LTD [JP]
- [A] JP 2010054087 A 20100311 - HITACHI LTD

Cited by
EP2682586A3; EP2977681A1; EP2846022A1; CN104421003A; US10401031B2

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

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BA ME

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DOCDB simple family (application)
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