

Title (en)

Burner with improved air-fuel mixing

Title (de)

BRENNER MIT VERBESSERTER LUFT-KRAFTSTOFF-MISCHUNG

Title (fr)

BRÛLEUR À MÉLANGE AIR-CARBURANT AMÉLIORÉ

Publication

**EP 3617599 A1 20200304 (EN)**

Application

**EP 18192157 A 20180903**

Priority

EP 18192157 A 20180903

Abstract (en)

Burner (01) for a combustor of a gas turbine, the burner (01) comprising in fluid flow sequence a swirler section (02) and a mixing section (12) and an outlet section (32) generally arranged around a burner axis (10). At the swirler section (02) air and fuel are introduced into the burner (01). The mixing section (12) is downstream of the swirler section (02) and comprises a tube (24) and defines a mixing volume (13) to mix the stream of air and fuel. The outlet section (32) comprises an annular bulge (34) and a burner outlet (33) therein to introduce the mixed stream of air and fuel into a combustion chamber. To enhance the mixing of air and fuel the mixing section (12) further comprises a sleeve (14) inside the tube (24) so that an annular channel (23) is defined between the sleeve (14) and the tube (24).

IPC 8 full level

**F23R 3/12** (2006.01); **F23C 7/00** (2006.01); **F23R 3/28** (2006.01)

CPC (source: EP)

**F23C 7/002** (2013.01); **F23D 11/383** (2013.01); **F23D 14/02** (2013.01); **F23R 3/12** (2013.01); **F23R 3/286** (2013.01); **F23C 2900/07002** (2013.01)

Citation (applicant)

EP 2815184 B1 20180829 - SIEMENS AG [DE]

Citation (search report)

- [XYI] EP 3290804 A1 20180307 - SIEMENS AG [DE]
- [X] US 6019596 A 20000201 - KNOEPFEL HANS PETER [CH], et al
- [Y] US 3973395 A 19760810 - MARKOWSKI STANLEY J, et al
- [A] US 6210152 B1 20010403 - HAFFNER KEN [CH], et al
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- [A] US 2002189257 A1 20021219 - STEINBACH CHRISTIAN [CH], et al

Designated contracting state (EPC)

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Designated extension state (EPC)

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DOCDB simple family (application)

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