

Title (en)

METHOD AND DEVICE FOR COMBUSTING A FUEL-OXIDISING AGENT MIXTURE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM VERBRENNEN EINES BRENNSTOFF-OXIDATOR-GEMISCHS

Title (fr)

PROCEDE ET DISPOSITIF POUR FAIRE BRULER UN MELANGE COMBUSTIBLE-OXYDANT

Publication

EP 1532400 A1 20050525 (DE)

Application

EP 03790608 A 20030812

Priority

- CH 0300542 W 20030812
- US 40697902 P 20020830

Abstract (en)

[origin: WO2004020905A1] The invention relates to a method and device (6) for combusting a fuel-oxidising agent mixture in a combustion chamber (7) of a group of turbogenerators, in particular of a power plant. A total oxidising agent flow (12) is divided into a main oxidising agent flow (14) and a secondary oxidising agent flow (15). Said main oxidising agent flow (14) is mixed with a main fuel flow (21) in a premixing burner (8) in such a way that a poor mixture is formed, a mixture (23) being fully oxidised in the combustion chamber (7). The secondary oxidising agent flow (15) is divided into a pilot oxidising agent flow (17) and a thermal transmittance oxidising agent flow (18). The pilot oxidising agent flow (17) is mixed with a pilot fuel flow (22) in order to produce a rich mixture, the mixture (17, 22) being partially oxidised in a catalyst (24), thereby producing hydrogen. A partially oxidised fuel-oxidising agent mixture (25) and the thermal transmittance oxidising agent flow (18) are introduced together, after the catalyst (24), in at least one zone (26) which is constructed in such a way that it makes it possible to stabilise the combustion of the main fuel-oxidising agent mixture (23).

IPC 1-7

F23R 3/40

IPC 8 full level

F23C 13/00 (2006.01); **F23R 3/40** (2006.01)

CPC (source: EP US)

F23C 13/00 (2013.01 - EP US); **F23R 3/40** (2013.01 - EP US); **F23C 2900/13002** (2013.01 - EP US); **F23C 2900/9901** (2013.01 - EP US)

Citation (search report)

See references of WO 2004020905A1

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

WO 2004020905 A1 20040311; AU 2003249830 A1 20040319; CN 100489397 C 20090520; CN 1703601 A 20051130; EP 1532400 A1 20050525; EP 1532400 B1 20170726; US 2006080968 A1 20060420; US 7421844 B2 20080909

DOCDB simple family (application)

CH 0300542 W 20030812; AU 2003249830 A 20030812; CN 03824774 A 20030812; EP 03790608 A 20030812; US 6692603 A 20030812