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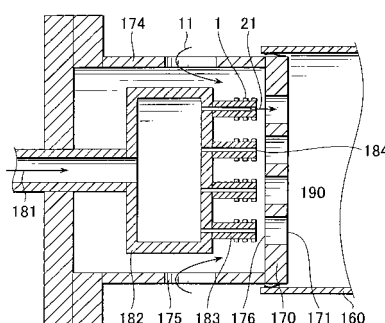
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(54) **Burner, method of combustion with the burner, and method of modifying the burner**

(57) The present invention provides a burner that includes fuel nozzles (183) each for jetting out a fuel (21) and air holes (171) each for jetting out air (11), and are constructed so that each of the fuel nozzles (183) is coaxially disposed with the associated one of the air holes (171) to cause each of the fuel nozzles to jet out the fuel into the associated one of the air holes; the burner further having means (1) for disturbing a flow of the fuel (21) or a flow of the air (11) at an upstream position from a nozzle tip (184) disposed to jet out the fuel from the fuel nozzle.

According to the present invention, mixing of the fuel and air existing before both fluids are supplied to a combustion chamber (190) can be promoted for further suppressed NOx emissions.

FIG. 1



**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 07 00 1009

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X,D	JP 2004 170010 A (HITACHI LTD) 17 June 2004 (2004-06-17)	1,6,8	INV. F23D14/20 F23D14/70
Y	* abstract; figures 1,3 *	4,5,7	
Y	US 2002/132203 A1 (EDBERG CARL D [US] ET AL) 19 September 2002 (2002-09-19) * page 1, paragraph 17 - page 2, paragraph 19 * * page 2, paragraph 21 - paragraph 23 * * page 3, paragraph 25 * * figures 1,6 *	4,5	
Y	US 5 339 635 A (IWAI YASUO [JP] ET AL) 23 August 1994 (1994-08-23) * column 3, line 29 - line 64 * * figure 1 *	7	
			TECHNICAL FIELDS SEARCHED (IPC)
			F23D
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>see sheet C</p>			
Place of search		Date of completion of the search	Examiner
Munich		9 July 2012	Gavriliu, Costin
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 07 00 1009

Claim(s) completely searchable:
1, 4-8

Claim(s) not searched:
2, 3, 9, 10

Reason for the limitation of the search:

Following the invitation pursuant to Rule 62a(1) EPC dated 23.01.2012, the applicant indicated in his answer dated 19.03.2012 that claim 1 with its dependent claims and claim 8 are to be searched.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 07 00 1009

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82