

Title (en)

A gas turbine with a catalytic combustor and method of operating such a gas turbine

Title (de)

Gasturbine mit einer katalytischen Brennkammer und Methode zu deren Betrieb

Title (fr)

Turbine à gaz avec chambre de combustion catalytique et sa méthode d'operation

Publication

EP 1010947 A3 20020320 (EN)

Application

EP 99124944 A 19991214

Priority

US 21114798 A 19981214

Abstract (en)

[origin: EP1010947A2] The present invention is a method and apparatus for operating a gas turbine that includes a catalytic combustor. The catalyst in the catalytic combustor is electrically heated, thereby initiating catalytic combustion without preheating the intake air. Eliminating the need to preheat the intake air allows removal of the preburner which otherwise produces an undesirable amount of oxides of nitrogen NO_x, especially at start up and low load conditions. <IMAGE>

IPC 1-7

F23R 3/40; F02C 3/04; F02C 3/00

IPC 8 full level

F23R 3/40 (2006.01)

CPC (source: EP)

F23R 3/40 (2013.01)

Citation (search report)

- [X] EP 0849451 A2 19980624 - ABB RESEARCH LTD [CH]
- [PX] WO 9913269 A1 19990318 - CATALYTICA INC [US], et al
- [X] US 4081958 A 19780404 - SCHELP HELMUT R
- [X] US 4065917 A 19780103 - PFEFFERLE WILLIAM C
- [X] EP 0702135 A1 19960320 - PRECISION COMBUSTION INC [US]
- [X] EP 0701093 A2 19960313 - PFEFFERLE WILLIAM C [US]
- [A] GB 2268694 A 19940119 - ROLLS ROYCE PLC [GB]
- [X] PATENT ABSTRACTS OF JAPAN vol. 009, no. 038 (M - 358) 19 February 1985 (1985-02-19)

Cited by

DE10062253A1; EP1549842A4; US7430869B2; WO2004029433A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1010947 A2 20000621; EP 1010947 A3 20020320

DOCDB simple family (application)

EP 99124944 A 19991214