

Title (en)
GAS TURBINE PLANT FOR THE PRODUCTION OF ELECTRICAL ENERGY

Title (de)
GASTURBINENANLAGE ZUR ERZEUGUNG ELEKTRISCHER ENERGIE

Title (fr)
INSTALLATION DE TURBINE À GAZ POUR LA PRODUCTION D'ÉNERGIE ÉLECTRIQUE

Publication
EP 3431877 A1 20190123 (EN)

Application
EP 18184118 A 20180718

Priority
IT 201700081329 A 20170718

Abstract (en)
A gas turbine plant for the production of electrical energy is provided with at least one combustor (4) comprising a combustion chamber (20) in which, in use, combustion occurs, and with at least one burner assembly (22) facing the combustion chamber (20) and fed with a mixture of air and gas; a radio-frequency electromagnetic radiation source (11) configured to selectively irradiate the combustion chamber (20) with radio-frequency electromagnetic radiations having a given frequency (F) and a given amplitude (A); at least one detecting sensor (13) configured to detect at least one parameter indicative of the presence of flame instability phenomena inside the combustion chamber (20); and at least one control device (12) configured to selectively activate the electromagnetic radiation source (11) and regulate the frequency (F) and/or the amplitude (A) of the radio-frequency electromagnetic radiations irradiated by the electromagnetic radiation source (11) on the basis of the data detected by the at least one detecting sensor (13).

IPC 8 full level
F23N 5/24 (2006.01); **F23R 3/18** (2006.01)

CPC (source: CN EP)
F23C 99/001 (2013.01 - CN); **F23N 5/242** (2013.01 - EP); **F23N 5/245** (2013.01 - EP); **F23R 3/16** (2013.01 - CN); **F05D 2260/964** (2013.01 - EP); **F05D 2270/08** (2013.01 - EP); **F23R 2900/00013** (2013.01 - EP)

Citation (search report)

- [I] ANDREA DI VITA: "On Rayleigh's criterion of thermo-acoustics", 21 March 2016 (2016-03-21), Genova, pages 234 - 272, XP055463118, Retrieved from the Internet <URL:https://www.researchgate.net/profile/Andrea_Di_Vita/publication/304495257_On_Rayleigh%27s_criterion_on_thermo-acoustics_-_A_Di_Vita%27s_PhD_thesis/links/5771400308ae842225ac0e23/On-Rayleighs-criterion-on-thermo-acoustics-A-Di-Vita-PhD-thesis.pdf> [retrieved on 20180327]
- [I] EMANUEL STOCKMAN ET AL: "Pulsed Microwave Enhancement of Laminar and Turbulent Hydrocarbon Flames", 45TH AIAA AEROSPACE SCIENCES MEETING AND EXHIBIT, 8 January 2007 (2007-01-08), Reston, Virginia, XP055463312, ISBN: 978-1-62410-012-3, DOI: 10.2514/6.2007-1348
- [IA] ANDREAS EHN ET AL: "Setup for microwave stimulation of a turbulent low-swirl flame", JOURNAL OF PHYSICS D: APPLIED PHYSICS, INSTITUTE OF PHYSICS PUBLISHING LTD, GB, vol. 49, no. 18, 8 April 2016 (2016-04-08), pages 185601, XP020303716, ISSN: 0022-3727, [retrieved on 20160408], DOI: 10.1088/0022-3727/49/18/185601

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BA ME

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