Title (en)
Thermoacoustic stabilization method

Title (de)
Thermoakustisches Stabilisierungsverfahren

Title (fr)
Procédé de stabilisation thermoacoustique

Publication
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Application
EP 13184151 A 20130912

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Abstract (en)
The invention relates to a method for thermoacoustic stabilization of gas turbine combustors (1) with multiple burners (2), which are arranged in at least one burner group (3) and each of the burners (2) is supplied with fuel (5) and oxidant (6). The method is characterized in operating neighboring burners (2) within that burner group (3) at different nominal velocities of oxidant through controlling of the pressure drop of the oxidant flow across individual burners (2) (velocity staging). In a preferred embodiment identical burners (2) are used wherein at least one burner (2) of the burner group (3) is both operated with a different amount of oxidant (6) and with a different amount of fuel (5) than the other burners (2) in that burner group (3). With such a velocity and fuel staging the flame temperatures are equal which means on one hand that there is no NOx penalty and on the other hand that a good mitigation for pulsation is achieved.

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F23M 20/005 (2015.01); F23R 3/26 (2013.01); F23R 2900/00014 (2013.01)

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