

Title (en)
ANCHORAGE OF LAMINAR FLAME OF FUEL-GAS

Title (de)
VERANKERUNG EINER LAMINAREN GASFLAMME

Title (fr)
ANCRAGE D'UNE FALMME LAMINAIRE DE COMBUSTIBLE GAZEUX

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Application
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Abstract (en)
[origin: WO9827386A1] The aim of this invention is to provide a method and apparatuses to make possible the proper combustion in very compact combustion systems in all operating conditions connected with the capacity modulation or/and the use of limit gases. This aim is reached by applying the method so that, in a combustion system, a premixed, atmospheric or forced burner form the fuel-gas air mixture, from almost stoichiometric to strongly hyperstoichiometric, which outflows from at least one flame opening (7) with velocity and modalities such as to obtain a substantially laminar flow and average velocity in all operating higher than the combustion velocity of the mixture in said condition, at least for a distance equal to that of at least one fluids dynamic obstacle (12) which is immersed in said jet, down stream the flame opening/s (7). Said obstacle (12) is always completely detached from said opening/s (7), having such shape and dimensions to create down stream a stagnation zone, anchorage of the flame (19) in all operating conditions. The flow field down stream and on the side of the obstacle (12) is almost laminar with progressively slightly divergent fluids threads, to obtain a flame (19), from laminar to wrinkled, at the beginning ignited from a specific device, characterised by a large surface and very low thickness anchored to the obstacle (12) at least in some points.

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