



ABSTRACT OF THE DISCLOSURE

The present invention provides a simply and compactly constructed, improved pulse combustor realizing stable pulse combustion with reduced noise and vibration. The pulse combustor of the invention includes a cylindrical combustion chamber (1) having a predetermined first volume for receiving a rich mixture of primary air and gaseous fuel and a secondary air separately, a tail pipe (10) connecting to the combustion chamber (1) for exhausting hot combustion byproducts sent from the combustion chamber (1), and a nozzle plate (4) having a plurality of gas nozzles (2) for supplying the rich mixture of primary air and gaseous fuel to the combustion chamber (1) and a plurality of air nozzles (3) for supplying the secondary air to the combustion chamber (1). The pulse combustor further includes a baffle plate (15) disposed opposite to the nozzle plate (4) via a predetermined space (S) for absorbing heat and reverse pressure generated by the hot combustion byproducts back flown from the combustion chamber (1), an air chamber (11) having a predetermined second volume which is greater than the predetermined first volume, for supplying the secondary air to the combustion chamber (1) through the plurality of air nozzles (3) and receiving the hot combustion byproducts back flown from the combustion chamber (1), an ever-on fan (12) for continuously feeding the secondary air to the air chamber (11). A small portion of hot combustion byproducts back flown from the combustion chamber (1) to the air chamber (11) is sufficiently mixed with the secondary air continuously supplied to the air chamber (11) by means of the fan (12) and fed back to the combustion chamber (1) via the plurality of

air nozzles (3).

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