

ABSTRACT

PULSE COMBUSTOR

An improved pulse combustor realizes stable pulse combustion with reduced noise and vibration, and includes: a combustion chamber (1); a mixing chamber (4) coupled with the intake side of the combustion chamber (1) via an opening (8) provided with a frame trap (9); a gas supply conduit (5) connecting to the mixing chamber (4) for supplying fuel gas; and an air duct (7) connecting to the mixing chamber (4) for supplying air. The total volume (V_2) of the mixing chamber (4), the gas supply conduit (5), and the air duct (7) is greater than the volume (V_1) of the combustion chamber (1). Combustion byproducts flowing back through the frame trap (9) are diluted with the air/fuel mixture in the mixing chamber (4) and again fed into the combustion chamber (1) for continuous combustion while the reverse pressure is efficiently reduced by the total volume (V_2).