

Title (en)
FUEL COMBUSTION METHOD AND REACTOR

Title (de)
VERFAHREN UND REAKTOR ZUR VERBRENNUNG VON BRENNSTOFFEN

Title (fr)
DISPOSITIF ET REACTEUR POUR LA COMBUSTION DE COMBUSTIBLES

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Application
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Abstract (en)
[origin: US6575733B1] The invention relates to a method for combustion of fuels of arbitrary state of aggregation, which are burnt with air, possibly with the addition of water, and a reactor therefore, which is intended to optimize the combustion method. A solid, liquid and/or gaseous fuel, possibly water and/or an oxidizing agent are introduced into a reaction chamber (2) in its axial direction under high pressure, the amount of injected pressurized air corresponding to the amount of air necessary for the complete combustion, and the introduced mixture is led to a deflection surface (7) in the interior of the reaction chamber (2), whereby it is atomized, sublimates and/or evaporates and burns explosively, before it can reach the wall or the bottom of the reaction chamber (2). The reactor (1) for this combustion method features a hyperboloidal reactor head (3), which is disposed adjacent to the outlet opening of the reaction chamber (2) and the cross-section of which widens from there, whereby the reactor (1) is shaped like a nozzle.

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