Title (en)

MULTISTAGE PROCESS FOR COMBUSTING FUEL MIXTURES

Title (de)

MEHRSTUFENVERFAHREN FÜR DIE VERBRENNUNG VON BRENNSTOFFMISCHUNGEN

Title (fr)

PROCEDE MULTI-ETAGE POUR LA COMBUSTION DES MELANGES COMBUSTIBLES

Publication

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Application

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- US 61830190 A 19901126

Abstract (en)

[origin: WO9209849A1] This invention is a combustion process having a series of stages in which a fuel/oxygen-gas-containing mixture (16, 18) is combusted stepwise using a series of specific catalysts and catalytic structures (figure 2) and, optionally, a final homogeneous combustion zone to produce a combusted gas at a selected temperature preferably between 1050 DEG and 1700 DEG C. Depending upon the pressure of operation, there may be two or three discrete catalytic stages (stages 1, 2 and 3). The choice of catalysts and the use of specific structures, including those employing integral heat exchange (44) results in a catalyst and its support which are stable due to their comparatively low temperature, do not deteriorate, and yet the product combustion gas is at a temperature suitable for use in a gas turbine, furnace, boiler, or the like, but has low NOx content. Neither fuel nor air is added to the combustion process except in the initial stage.

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