

Title (en)
PROCESS AND PLANT FOR THE GAZEIFICATION OF SOLID FUELS.

Title (de)
VERFAHREN UND ANLAGE ZUM VERGASEN VON STÜCKIGEN BRENNSTOFFEN.

Title (fr)
PROCEDE ET INSTALLATION POUR LA GAZEIFICATION DE COMBUSTIBLES EN MORCEAUX.

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Application
EP 80901251 A 19800704

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Abstract (en)
[origin: WO8100112A1] Fuel such as bituminous coal, lignite, wood, straw and similar, is carbonized at approximately the atmospheric pressure in a first stage by indirect heating between 300 and 600 C while stirring constantly (1). The hot gases released are mixed with preheated air and partially burnt (27) in a second stage. Simultaneously, they are thermally cracked at temperatures comprised between 850 and 1200 C, and they are passed through a reaction zone (35) comprised of low carbonization coke obtained during the first stage. In a third stage, the coke is subjected to a partial combustion, for example by means of air and steam. The gas mixture being initially at a temperature comprised between 900 and 1200 C is sucked through a reaction zone formed with the low carbonization coke where the gas temperature is reduced due to an endothermal reaction and where the calorific capacity of the gases is simultaneously increased. Those gases and the gases coming from the second stage are conveyed towards heat-exchangers (44 to 46) and to gas scrubbers (61).

Abstract (fr)
Le combustible tel que le charbon bitumineux, le lignite, le bois, la paille et analogue, est carbonise a la pression approximativement atmospherique dans une premiere etape par chauffage indirect entre 300 et 600 C et en agitant constamment (1). Les gaz degages chauds sont melanges avec de l'air prechauffe et partiellement brules (27) dans une deuxieme etape. Simultanement, ils sont craques thermiquement a des temperatures comprises entre 850 et 1200 C et ensuite ils passent a travers une zone de reaction (35) composee de coke de basse carbonisation obtenu pendant la premiere etape. Dans une troisieme etape le coke subit une combustion partielle, par exemple au moyen d'air et de vapeur d'eau. Le melange gazeux se trouvant initialement a une temperature comprise entre 900 et 1200 C est aspire a travers une zone de reaction formee du coke de basse carbonisation ou la temperature des gaz est diminuee grace a une reaction endothermique et ou la valeur calorifique des gaz est simultanement augmentee. Ces gaz et les gaz provenant de la deuxieme etape seront conduits vers des echangeurs de chaleur (44 a 46) et des laveurs a gaz (61).

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