

Title (en)

METHOD AND DEVICE FOR THE TRANSFORMATION OF REACTION HEAT INTO MECHANICAL ENERGY.

Title (de)

VERFAHREN UND VORRICHTUNG ZUR UMWANDLUNG VON REAKTIONSENTHALPIE IN MECHANISCHE ENERGIE.

Title (fr)

PROCEDE ET DISPOSITIF DE TRANSFORMATION DE CHALEUR DE REACTION EN ENERGIE MECANIQUE.

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Application

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Abstract (en)

[origin: WO8203422A1] Method for transforming reaction heat into mechanical energy, wherein a plurality of bodies participating to the reaction are introduced in a reaction chamber where they are reacted between each other. The reaction heat of chemical reactions is used differently. In methods such as the synthesis gas production, which are continuously implemented at temperatures comprised between 1300$^{\circ}\text{C}$ and 1600$^{\circ}\text{C}$, the heat of products coming out of the reactor at the reaction temperature is used incompletely during the thermal recovery which follows. In order to make a better use of the heat released during such reactions, the products formed during the reaction are, according to the invention, brought to an expansion producing energy during and/or after the reaction.

Abstract (fr)

Procede de transformation de chaleur de reaction en energie mecanique, dans lequel plusieurs corps participant a la reaction sont introduits dans une chambre de reaction ou ils sont amenes a reagir entre eux. La chaleur de reaction des reactions chimiques est utilisee differemment. Dans les procedes tels que la production de gaz de synthese, qui sont mis en oeuvre en continu a des temperatures de 1300 C a 1600 C, la chaleur des produits sortant du reacteur a la temperature de reaction est utilisee de maniere incomplete lors de la recuperation thermique qui suit. Afin de mieux utiliser la chaleur liberee lors de telles reactions, les produits formes durant la reaction sont, selon l'invention, amenes a une detente produisant de l'energie pendant et/ou apres la reaction.

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