

**METHOD FOR PRODUCING CO AND/OR H₂ IN AN ALTERNATING OPERATION BETWEEN TWO
OPERATING MODES**

ABSTRACT

The invention relates to a method for producing syngas in an alternating operation between two operating modes. The method has the steps of providing a flow reactor; endothermically reacting carbon dioxide with hydrocarbons, water, and/or hydrogen in the flow reactor, at least carbon monoxide being formed as the product, under the effect of heat generated electrically by one or more heating elements (110, 111, 112, 113); and at the same time exothermically reacting hydrocarbons, carbon monoxide, and/or hydrogen as reactants in the flow reactor. The exothermic reaction releases a heat quantity Q1, the electric heating of the reactor releases a heat quantity Q2, and the exothermic reaction and the electric heating of the reactor are operated such that the sum of Q1 and Q2 is greater than or equal to the heat quantity Q3 which is required for an equilibrium yield Y of the endothermic reaction of $\geq 90\%$.