

Title (en)
HIGH-PRESSURE PROCESS FOR CARBON DIOXIDE REFORMING OF HYDROCARBONS IN THE PRESENCE OF IRIIDIUM-CONTAINING ACTIVE MASSES

Title (de)
HOCHDRUCKVERFAHREN ZUR KOHLENDIOXID-REFORMIERUNG VON KOHLENWASSERSTOFFEN IN GEGENWART VON IRIIDIUMHALTIGEN AKTIVMASSEN

Title (fr)
PROCÉDÉ HAUTE PRESSION PERMETTANT DE SOUMETTRE DES HYDROCARBURE À UN REFORMAGE AU DIOXYDE DE CARBONE RÉALISÉ EN PRÉSENCE DE MATIÈRE ACTIVES CONTENANT DE L'IRIDIUM

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Abstract (en)
[origin: WO2014001423A1] The invention relates to a catalytic high-pressure process for CO₂ reforming of hydrocarbons, preferably methane, in the presence of iridium-containing active masses, and also a preferred active mass in which Ir is present in finely divided form on zirconium dioxide-containing support material. Preferably, the predominant fraction of the zirconium dioxide has a cubic and/or tetragonal structure and, more preferably, the zirconium dioxide is stabilized with at least one doping element. In the process according to the invention, reforming gas at a pressure which is greater than 5 bar, preferably greater than 10 bar, and more preferably greater than 20 bar, and at a temperature which is in the range from 600 to 1200°C, preferably in the range from 850 to 1100°C, and particularly preferably in the range from 850 to 950°C, is brought into contact and reacted to form synthesis gas. The process according to the invention is carried out using a reforming gas that contains only small amounts of steam, or is completely steam-free. The process is characterized in that the formation of coke on the catalyst is greatly restricted when the process is being carried out, as a result of which the process can be carried out over a long time period without in this case significant losses in activity occurring.

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