

Title (en)
METHOD FOR REDUCING THE EMISSION OF CARBON DIOXIDE AND DEVICE

Title (de)
VERFAHREN ZUR REDUZIERUNG DES AUSSTOSSES VON KOHLENDIOXID NEBST VORRICHTUNG

Title (fr)
PROCÉDÉ DE RÉDUCTION D'ÉMISSION DE DIOXYDE DE CARBONE ET DISPOSITIF ASSOCIÉ

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Application
EP 10730705 A 20100616

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Abstract (en)
[origin: WO2010145808A1] The invention relates to a method for reducing the emission of carbon dioxide into the atmosphere and to a tank for carrying out the method. According to the method, carbon dioxide, which was created as a result of a combustion process, is separated from the gas. The carbon dioxide is then brought to a pressure of at least 10 bar in absolute terms, preferably at least 15 bar in absolute terms, mostly preferably at least 18 bar in absolute terms, and is cooled to a temperature of up to -10°C, preferably of up to -20°C. Preferably, the temperature of the liquefied carbon dioxide is up to -40°C. The temperature of the liquefied carbon dioxide, during the transport in a tank, is especially preferably between -25°C and -35°C. The relatively high pressure of, for example, 18 bar in absolute terms requires the provision of tanks having relatively thick walls. However, the high pressure allows for a relatively high proportion of hydrogen and nitrogen to be accepted in the carbon dioxide gas. Thus, it is not necessary to separate nitrogen and hydrogen from carbon dioxide to a large extent prior to liquefaction, which would also cause a separation of carbon dioxide according to the available prior art.

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