

Title (en)

FACILITY AND METHOD FOR HYDROGEN REFRIGERATION

Title (de)

ANLAGE UND VERFAHREN ZUR WASSERSTOFFKÜHLUNG

Title (fr)

INSTALLATION ET PROCÉDÉ DE RÉFRIGÉRATION D'HYDROGÈNE

Publication

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Application

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Abstract (en)

[origin: CA3188205A1] The invention relates to a facility for refrigerating hydrogen to cryogenic temperatures, and in particular for liquefying hydrogen, comprising a circuit (2) for hydrogen to be refrigerated comprising an upstream end to be connected to a hydrogen source, and a downstream end connected to a refrigerated hydrogen collection member, the refrigeration facility (1) comprising a set of one or more heat exchangers (3, 4) in thermal exchange with the circuit (2) of hydrogen to be refrigerated, the facility (1) comprising a device for refrigerating by heat exchange with the set of one or more heat exchangers (3, 4), the refrigerating device comprising a refrigerator (5) with a refrigeration cycle of a cycle gas such as hydrogen, at least one portion of the hydrogen circuit (2), of the set of one or more exchangers (3, 4) and of the refrigerating device being housed in a vacuum-insulated cold box (6), the facility (1) comprising in the cold box (6), at least one ejector (8) the suction inlet of which is connected to the gas phase of a fluid capacity (13) and the motor fluid intake inlet of which is connected to at least one among: the pressurised cycle gas of the refrigerator (5), the hydrogen of the hydrogen circuit (2) refrigerated in the set of one or more heat exchangers (3, 4).

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