

Title (en)
SUB-COOLING SYSTEM OF A COMPRESSION-REFRIGERATION SYSTEM

Title (de)
UNTERKÜHLUNGSSYSTEM EINES KOMPRESSIONSKÜHLSYSTEMS

Title (fr)
SYSTEME DE SOUS-REFROIDISSEMENT D'UN SYSTEME DE REFRIGERATION A COMPRESSION

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Application
EP 13756539 A 20130716

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Abstract (en)
[origin: WO2014013145A1] The present invention relates to a refrigeration facility and a method for maintaining the temperature of an isothermal enclosure (3) including: a refrigerating unit (5) comprising a compressor (7) driven by a heat engine (8) and an evaporator (13); and a thermochemical cooling system (15) including a vessel (23) containing a liquefied gas capable, after evaporation, of combining with a reactive product, consisting of a mixture of a reactive salt and natural expanded graphite, contained in a reactor (17), the reaction product obtained being capable of being regenerated by a heating means, said cooling system including an evaporator (25) and a condenser (21). The facility is characterised in that: the evaporator (25) of said cooling system is in thermal contact with the refrigerant circuit of the refrigerating unit (5) upstream from the evaporator (13) thereof; the reactor of the cooling system is in thermal contact with a heating means using the heat energy dissipated by the heat engine during the operation thereof; the natural expanded graphite used has an apparent density of 100 to 120 kg/m³; and the weight percentage of the salt in the reactive product is of 50 % to 75 %.

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