Title (en)

VAPOUR-COMPRESSION HEAT PUMP USING A WORKING FLUID AND CO2

Title (de)

DAMPFKOMPRESSIONSWÄRMEPUMPE MIT VERWENDUNG EINER BETRIEBSFLÜSSIGKEIT UND CO2

Title (fr)

POMPE À CHALEUR DE COMPRESSION DE VAPEUR UTILISANT UN FLUIDE² DE TRAVAIL ET DU CO2

Publication

EP 3338036 A4 20180718 (EN)

Application

EP 15858512 A 20151109

Priority

- SE 1400541 A 20141113
- SE 2015051181 W 20151109

Abstract (en)

[origin: WO2016076779A1] A method for conversion of a low temperature heat (5) into a high temperature heat (6) employing the use of a working fluid comprising an absorbent for a working gas comprising CO2 (carbon dioxide) and at least one of an alkali metal hydroxide, ammonia (NH3) or at least one amine, characterized by the steps of: - a) providing said low temperature heat (5) having a temperature in the range of 20-80 °C, - b) converting said low temperature heat (5) to said high temperature heat (6) having a temperature in the range higher than 80 °C by liberating said working gas by contact said working fluid with said low temperature heat (5), - c) compressing said working gas by a compression device (2), and - d) reacting said working gas with said absorbent immediately after compression, wherein a maximum pressure is below 40 bar, preferably below 20 bar and most preferably below 16 bar.

IPC 8 full level

F25B 15/02 (2006.01); **F01K 25/06** (2006.01); **F25B 25/02** (2006.01); **F25B 30/04** (2006.01)

CPC (source: EP)

F01K 25/06 (2013.01); **F01K 25/065** (2013.01); **F25B 25/02** (2013.01)

Citation (search report)

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- [A] US 4086772 A 19780502 - WILLIAMS KENNETH A
- [A] DE 102004006837 A1 20050825 - OSER ERWIN [DE]
- See references of WO 2016076779A1

Designated contracting state (EPC)

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