

Title (en)

METHOD OF THERMAL ENERGY TRANSFER

Title (de)

VERFAHREN ZUR WÄRMEENERGIEÜBERTRAGUNG

Title (fr)

PROCÉDÉ DE TRANSFERT D'ÉNERGIE THERMIQUE

Publication

EP 2092251 A1 20090826 (EN)

Application

EP 07834471 A 20070925

Priority

- LV 2007000003 W 20070925
- LV 060129 A 20061121

Abstract (en)

[origin: WO2008063039A1] The proposed method of moving thermal energy from a lower temperature heat source to a higher temperature heat sink ensures the increase of the heat pump performance as it allows to abandon the use of additional thermal energy used for separation of the working substance from the absorbent. This is ensured with particular conditions of the choice of the working substance and the absorbent: the working substance is partially miscible in the absorbent within the whole range of working temperatures of the thermal energy transfer cycle, moreover, the absorbent and the working substance have different densities as well as the absorbent has a lower vapour pressure at the absorber working temperature than the working substance. Therefore the absorption is quite active as the working substance dissolves in the absorbent due to increased vapour pressure, but the desorption occurs spontaneously since the working substance concentration in the absorbent exceeds equilibrium concentration at a given desorption temperature.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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