

Title (en)

METHOD FOR CONVERTING THERMAL ENERGY AT A LOW TEMPERATURE INTO THERMAL ENERGY AT A RELATIVELY HIGH TEMPERATURE BY MEANS OF MECHANICAL ENERGY, AND VICE VERSA

Title (de)

VERFAHREN ZUM UMWANDELN THERMISCHER ENERGIE NIEDRIGER TEMPERATUR IN THERMISCHE ENERGIE HÖHERER TEMPERATUR MITTELS MECHANISCHER ENERGIE UND UMGEKEHRT

Title (fr)

PROCÉDÉ DE CONVERSION D'ÉNERGIE THERMIQUE À FAIBLE TEMPÉRATURE EN ÉNERGIE THERMIQUE À PLUS HAUTE TEMPÉRATURE AU MOYEN D'ÉNERGIE MÉCANIQUE ET INVERSEMENT

Publication

EP 2183529 A1 20100512 (DE)

Application

EP 08782795 A 20080721

Priority

- AT 2008000265 W 20080721
- AT 12032007 A 20070731

Abstract (en)

[origin: WO2009015402A1] Method for converting thermal energy at a low temperature into thermal energy at a relatively high temperature by means of mechanical energy, and vice versa, with a working medium which runs through a closed thermodynamic circulation process, wherein the circulation process has the following working steps: - reversible adiabatic compression of the working medium, - isobaric conduction away of heat from the working medium, - reversible adiabatic relaxing of the working medium, - isobaric supply of heat to the working medium, and wherein the increase or decrease in pressure of the working medium is produced during the compression or relaxing, increasing or decreasing the centrifugal force acting on the working medium, with the result that the flow energy of the working medium is essentially retained during the compression or relaxing process.

IPC 8 full level

F25B 3/00 (2006.01)

CPC (source: EP US)

F25B 3/00 (2013.01 - EP US)

Citation (search report)

See references of WO 2009015402A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

WO 2009015402 A1 20090205; AT 505532 A1 20090215; AT 505532 B1 20100815; AU 2008281301 A1 20090205; AU 2008281301 B2 20121206; BR PI0814333 A2 20150120; CA 2694330 A1 20090205; CA 2694330 C 20140715; CN 101883958 A 20101110; CN 101883958 B 20131120; DK 2183529 T3 20170828; EP 2183529 A1 20100512; EP 2183529 B1 20170524; ES 2635512 T3 20171004; HU E033411 T2 20171228; JP 2010534822 A 20101111; JP 5833309 B2 20151216; KR 101539790 B1 20150728; KR 20100051060 A 20100514; NZ 582993 A 20111028; PL 2183529 T3 20171031; RU 2010105705 A 20110827; RU 2493505 C2 20130920; US 2010199691 A1 20100812; US 8316655 B2 20121127

DOCDB simple family (application)

AT 2008000265 W 20080721; AT 12032007 A 20070731; AU 2008281301 A 20080721; BR PI0814333 A 20080721; CA 2694330 A 20080721; CN 200880101372 A 20080721; DK 08782795 T 20080721; EP 08782795 A 20080721; ES 08782795 T 20080721; HU E08782795 A 20080721; JP 2010518460 A 20080721; KR 20107002494 A 20080721; NZ 58299308 A 20080721; PL 08782795 T 20080721; RU 2010105705 A 20080721; US 67131408 A 20080721