Title (en)

MULTI-COMPONENT TWO-PHASE POWER CYCLE

Title (de)

MEHRKOMPONENTEN- UND ZWEIPHASEN-STROMKREISLAUF

Title (fr)

CYCLE D'ÉNERGIE MULTICOMPOSANT À DEUX PHASES

Publication

EP 2591214 A4 20141224 (EN)

Application

EP 11804240 A 20110705

Priority

- US 80391110 A 20100709
- US 2011042913 W 20110705

Abstract (en)

[origin: US2012006024A1] A multi-component apparatus characterized as performing a two-phase thermodynamic cycle, for conversion of heat energy to useful power comprises: fluid means consisting to two or more chemical components to absorb heat energy, the fluid means providing an increasing temperature and increasing fraction of gas phase as increasing amounts of heat are absorbed, expander means operating to convert the enthalpy in a received mixture of gas and liquid, formed in said fluid means, as a result of the said heat energy absorbed by the fluid means, to mechanical, shaft power, heat exchanger means operating to transfer the heat energy to be absorbed by the fluid means, condenser means operating to reject the unconverted enthalpy, by the expander means, in the fluid means, thereby condensing any gas to convert the fluid means to liquid, and pump means operating to pressurize liquid fluid means leaving the condenser means, in order to return the fluid means to the heat exchanger means, closing the thermodynamic cycle.

IPC 8 full level

F01K 25/06 (2006.01)

CPC (source: EP US)

F01D 1/06 (2013.01 - EP US); **F01K 25/065** (2013.01 - EP US); F05D 2210/13 (2013.01 - EP US)

Citation (search report)

- [XYI] US 2006225423 A1 20061012 - BROSTOW ADAM A [US]
- [X] WO 2008068491 A2 20080612 - PERA INNOVATION LTD [GB], et al
- [Y] WO 2006065445 A2 20060622 - ENERGENT CORP [US]
- [Y] WO 2005100755 A1 20051027 - SIEMENS AG [DE], et al
- [Y] WO 2010051006 A1 20100506 - CRYOQUIP INC [US]
- See references of WO 2012006260A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

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US 80391110 A 20100709; AU 2011276382 A 20110705; CN 201180040261 A 20110705; EP 11804240 A 20110705; US 2011042913 W 20110705