

Title (en)

Thermoelectric energy storage system and method for storing thermoelectric energy

Title (de)

Thermoelektrisches Energiespeichersystem und Verfahren zum Speichern von thermoelektrischer Energie

Title (fr)

Système de stockage d'énergie thermoélectrique et procédé de stockage d'énergie thermoélectrique

Publication

EP 2390473 A1 20111130 (EN)

Application

EP 10164288 A 20100528

Priority

EP 10164288 A 20100528

Abstract (en)

A thermoelectric energy storage system (10) has an intercooler for intercooling a working fluid between two compression stages. The intercooling may be carried out by flashing a portion of the working fluid (taken from the output of an expander (20)) in a flash intercooler (28) and/or by heating a secondary thermal storage (46) with a further heat exchanger (30).

IPC 8 full level

F01K 3/12 (2006.01); **F01K 25/10** (2006.01); **F22B 1/02** (2006.01); **F28D 20/00** (2006.01)

CPC (source: EP US)

F01K 3/12 (2013.01 - EP US); **F01K 25/10** (2013.01 - EP US); **F28D 17/00** (2013.01 - US)

Citation (applicant)

- EP 1577548 A1 20050921 - ABB RESEARCH LTD [CH]
- EP 2157317 A2 20100224 - ABB RESEARCH LTD [CH]
- US 3165905 A 19650119 - WARE CHESTER D
- LACHNER B. F.; NELLIS G. F.; REINDL D. T.: "The commercial feasibility of the use of water vapor as a refrigerant", INTERNATIONAL JOURNAL OF REFRIGERATION, vol. 30, 2007, pages 699 - 708

Citation (search report)

- [YD] EP 2157317 A2 20100224 - ABB RESEARCH LTD [CH]
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- [A] DE 102006007119 A1 20070823 - WOLF BODO M [DE]
- [A] US 2008137797 A1 20080612 - PETER ANDREW MAXWELL [US]

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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 SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

EP 2390473 A1 20111130; CN 103003531 A 20130327; US 2013087301 A1 20130411; WO 2011147701 A1 20111201

DOCDB simple family (application)

EP 10164288 A 20100528; CN 201180036882 A 20110513; EP 2011057799 W 20110513; US 201213687235 A 20121128