

Title (en)

METHODS AND APPARATUS FOR THERMAL ENERGY STORAGE CONTROL OPTIMIZATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR OPTIMIERTEN STEUERUNG EINER WÄRMEENERGIESPEICHERUNG

Title (fr)

PROCÉDÉS ET APPAREIL POUR L'OPTIMISATION DU CONTRÔLE DE STOCKAGE DE L'ÉNERGIE THERMIQUE

Publication

**EP 2776712 A1 20140917 (EN)**

Application

**EP 12847282 A 20121016**

Priority

- US 201161558275 P 20111110
- US 2012060375 W 20121016

Abstract (en)

[origin: WO2013070396A1] Concentrating solar power (CSP) systems and methods are disclosed featuring the use of a solid-liquid phase change heat transfer material (HTM). The systems and methods include a solar receiver configured to receive concentrated solar flux to heat a quantity of the solid HTM and cause a portion of the solid HTM to melt to a liquid HTM. The systems and methods also include a heat exchanger in fluid communication with the solar receiver. The heat exchanger is configured to receive liquid HTM and provide for heat exchange between the liquid HTM and the working fluid of a power generation block. The heat exchanger further provides for the solidification of the liquid HTM. The systems and methods also include a material transport system providing for transportation of the solidified HTM from the heat exchanger to the solar receiver.

IPC 8 full level

**F03G 6/00** (2006.01); **F24J 2/04** (2006.01); **F24J 2/34** (2006.01); **F24S 10/30** (2018.01); **F28D 20/00** (2006.01); **F28D 20/02** (2006.01)

CPC (source: EP ES US)

**F03G 6/005** (2013.01 - ES); **F24S 10/30** (2018.04 - EP US); **F24S 60/00** (2018.04 - EP US); **F24S 60/10** (2018.04 - EP US); **F28D 20/02** (2013.01 - EP ES US); **F28D 2020/0082** (2013.01 - EP US); **Y02E 10/44** (2013.01 - EP); **Y02E 10/46** (2013.01 - EP US); **Y02E 60/14** (2013.01 - EP US); **Y02E 70/30** (2013.01 - EP US)

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)

**WO 2013070396 A1 20130516**; CL 2014001129 A1 20141219; EP 2776712 A1 20140917; EP 2776712 A4 20150715; ES 2540427 A2 20150709; ES 2540427 R1 20151002; US 2014299122 A1 20141009

DOCDB simple family (application)

**US 2012060375 W 20121016**; CL 2014001129 A 20140430; EP 12847282 A 20121016; ES 201490046 A 20121016; US 201214357295 A 20121016