

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 A4 20150715 (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)

Citation (search report)

- [Y] US 2010089391 A1 20100415 - ADDIE ANDREW R [US], et al
- [Y] US 2010101621 A1 20100429 - XU JUN [US]
- [A] WO 2011067773 A1 20110609 - HELIOFOCUS LTD [IL], et al
- [A] WO 2010116162 A2 20101014 - CARDING SPEC CANADA [GB], et al
- See references of WO 2013070396A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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