

Title (en)

ENERGY ABSORPTION AND RELEASE DEVICES AND SYSTEMS

Title (de)

ENERGIEAUFNAHME- UND ABGABGEVORRICHTUNGEN UND -SYSTEME

Title (fr)

DISPOSITIFS ET SYSTÈMES D'ABSORPTION ET DE LIBÉRATION D'ÉNERGIE

Publication

EP 2313710 A1 20110427 (EN)

Application

EP 09785239 A 20090616

Priority

- GB 2009050683 W 20090616
- GB 0810982 A 20080616

Abstract (en)

[origin: WO2010004302A1] A method and apparatus for absorbing heat and releasing heat at a later time is described in which a zeolite molecular sieve (8) is heated in a container to drive out water vapour. The zeolite molecular sieve is allowed to cool creating a vacuum in the container through the re-absorption into the zeolite molecular sieve any water vapour remaining in the container. Further water vapour is drawn into the zeolite molecular sieve to release heat as the water vapour combines with the zeolite. The invention has a number of applications including a heat storage device, as part of a cooling system and a water purification and / or desalination system. Heating is achieved by a number of means, electrical, (13) solar and inductive heating described.

IPC 8 full level

F25B 17/08 (2006.01)

CPC (source: EP US)

B01D 1/0017 (2013.01 - EP); **B01D 1/0035** (2013.01 - EP); **B01D 1/0082** (2013.01 - EP); **B01D 5/006** (2013.01 - EP); **C02F 1/14** (2013.01 - EP); **F24S 10/75** (2018.04 - EP); **F24S 60/00** (2018.04 - EP US); **F24S 60/10** (2018.04 - EP US); **F24S 60/20** (2018.04 - EP US); **F25B 17/08** (2013.01 - EP US); **F28D 20/003** (2013.01 - EP); **C02F 2103/08** (2013.01 - EP); **F28F 2215/10** (2013.01 - EP); **Y02A 20/124** (2017.12 - EP); **Y02A 20/142** (2017.12 - EP); **Y02A 20/212** (2017.12 - EP); **Y02E 10/44** (2013.01 - EP); **Y02E 60/14** (2013.01 - EP); **Y02E 70/30** (2013.01 - EP)

Citation (search report)

See references of WO 2010004302A1

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 MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

WO 2010004302 A1 20100114; EP 2313710 A1 20110427; GB 0810982 D0 20080723

DOCDB simple family (application)

GB 2009050683 W 20090616; EP 09785239 A 20090616; GB 0810982 A 20080616