

Title (en)

ADSORPTION COOLING SYSTEM AND ADSORPTION COOLING METHOD FOR AN AIRCRAFT

Title (de)

ADSORPTIONSKÜHLSYSTEM UND ADSORPTIONSKÜHLVERFAHREN FÜR EIN LUFTFAHRZEUG

Title (fr)

SYSTÈME DE REFROIDISSEMENT PAR ADSORPTION ET PROCÉDÉ DE REFROIDISSEMENT PAR ADSORPTION POUR UN AÉRONEF

Publication

**EP 2342127 A1 20110713 (DE)**

Application

**EP 09743878 A 20091028**

Priority

- EP 2009007724 W 20091028
- DE 102008053828 A 20081030
- US 10954308 P 20081030

Abstract (en)

[origin: WO2010049147A1] An adsorption cooling system (1) for an aircraft, comprises an evaporator (18), a first adsorber (2), with a first adsorbent for adsorbing an adsorbent coolant evaporated in the evaporator (18) and an second adsorber (4), containing a second adsorbent for adsorbing an adsorbent coolant evaporated in the evaporator (18), wherein the first and the second adsorber (2, 4) may be alternately operated in an adsorption mode and a desorption mode such that one adsorber (2, 4) adsorbs adsorption coolant and the other adsorber (2, 4) can be regenerated. A heat transfer system in the adsorption cooling system (1) is designed to transmit heat from the adsorber (2, 4) going from desorption mode into absorption mode to the adsorber (2, 4) going from adsorption mode to desorption mode by means of a heat transfer fluid during a transition phase in which one adsorber (2, 4) goes from adsorption mode to desorption mode and the other adsorber (2, 4) goes from desorption mode to adsorption mode.

IPC 8 full level

**B64D 13/06** (2006.01); **F25B 17/08** (2006.01); **F25B 49/04** (2006.01)

CPC (source: EP US)

**B64D 13/06** (2013.01 - EP US); **F25B 17/083** (2013.01 - EP US); **B64D 2013/0674** (2013.01 - EP US); **F25B 49/046** (2013.01 - EP US); **Y02T 50/50** (2013.01 - EP US)

Citation (search report)

See references of WO 2010049147A1

Citation (examination)

US 4610148 A 19860909 - SHELTON SAMUEL V [US]

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 SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**WO 2010049147 A1 20100506**; CA 2742321 A1 20100506; CN 102202969 A 20110928; CN 102202969 B 20130619; DE 102008053828 A1 20100512; EP 2342127 A1 20110713; JP 2012506817 A 20120322; RU 2011118855 A 20121210; US 2012000220 A1 20120105

DOCDB simple family (application)

**EP 2009007724 W 20091028**; CA 2742321 A 20091028; CN 200980143426 A 20091028; DE 102008053828 A 20081030; EP 09743878 A 20091028; JP 2011533605 A 20091028; RU 2011118855 A 20091028; US 200913125153 A 20091028