

Title (en)
AMMONIA-WATER ABSORPTION REFRIGERATION UNIT

Title (de)
AMMONIAK-WASSER-ABSORPTIONSKÄLTEAGGREGAT

Title (fr)
GROUPE FRIGORIFIQUE À ABSORPTION AMMONIAC-EAU

Publication
EP 2438367 A1 20120411 (DE)

Application
EP 10725024 A 20100601

Priority
• EP 2010003301 W 20100601
• DE 102009023929 A 20090604

Abstract (en)
[origin: CA2763417A1] The present invention relates to an ammonia-water absorption refrigeration unit (1) for operating temperatures even below 100°C, comprising at least one absorber (10) arranged in a coolant circuit (2), wherein the absorber (10) comprises a fully welded plate packet for an inner medium, which plate packet in turn is arranged in a jacket tube for an outer medium. The invention further relates to a method of minimal complexity for conducting media in at least one coolant circuit (2) of an ammonia-water absorption refrigeration unit (1) according to the invention, using heat exchangers which comprise a fully welded plate packet for an inner medium, which plate packet in turn is arranged in a jacket tube for an outer medium. The invention further relates to the use of an optimized absorber (10) according to the invention, comprising a fully welded plate packet for an inner medium, which plate packet in turn is arranged in a jacket tube for an outer medium, in a coolant circuit (2) of an ammonia-water absorption refrigeration unit (1) according to the invention.

IPC 8 full level
F25B 15/04 (2006.01); **F25B 37/00** (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP US)
F25B 15/04 (2013.01 - EP US); **F25B 37/00** (2013.01 - EP US); **F28D 9/00** (2013.01 - EP US); **Y02A 30/27** (2017.12 - EP US); **Y02B 30/62** (2013.01 - EP US)

Citation (search report)
See references of WO 2010139444A1

Citation (examination)
DE 19637821 A1 19980319 - DEUTSCHE FORSCH LUFT RAUMFAHRT [DE], et al

Citation (third parties)
Third party :
• DE 19734131 A1 19990211 - INST LUFT KAELETETECH GEM GMBH [DE]
• DE 19842577 A1 20000323 - INST LUFT KAELETETECH GEM GMBH [DE]
• DE 19637821 A1 19980319 - DEUTSCHE FORSCH LUFT RAUMFAHRT [DE], et al
• DE 102004056484 A1 20060524 - FOERSTER HANS [DE]
• DE 19921469 A1 20001109 - EES ERDGAS ENERGIESYSTEME GMBH [DE], et al
• DE 69922984 T2 20060223 - EBARA CORP [JP]
• DE 102009023929 A1 20101209 - STUERZEBECHER WOLFGANG [DE]
• DE 19845361 A1 20000406 - INST LUFT KAELETETECH GEM GMBH [DE]
• DE 102004039997 A1 20051208 - RETH ANNO VON [DE]
• DE 202007007999 U1 20070913 - WUTTKE GES FUER LUEFTUNGS UND [DE]
• DE 10017828 A1 20011011 - INST LUFT KAELETETECH GEM GMBH [DE]
• DE 10324300 B4 20060614 - WEIMER THOMAS [DE]
• DE 2754626 A1 19780622 - CARRIER CORP
• DE 10108768 A1 20020919 - POLYMER ENG GMBH [DE]
• DE 10025530 A1 20011129 - INST LUFT KAELETETECH GEM GMBH [DE]
• DE 202008011174 U1 20081106 - MAKATEC GMBH [DE]
• DE 3808257 C1 19890302
• DE 102004063211 A1 20060713 - JAKOB ULI [DE], et al
• EP 0906712 A1 19990407 - DANIELS DREW [US], et al
• EP 1559981 A2 20050803 - PRESSKO AG [DE]
• EP 0927326 B1 20001122 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE], et al
• EP 1367339 A1 20031203 - FOERSTER HANS DR-ING [DE]
• US 6158238 A 20001212 - LAMPINEN MARKKU [FI], et al
• DE FRANCISCO A. ET AL: "Development and testing of a prototype of low-power water-ammonia absorption equipment for solar energy applications", RENEWABLE ENERGY, vol. 25, no. 4, 1 April 2002 (2002-04-01), pages 573 - 544, XP004312372
• SHAH R.K. ET AL: "Fundamentals of Heat Exchanger Design", FUNDAMENTALS OF HEAT EXCHANGER DESIGN, 1 January 2003 (2003-01-01), pages 1 - 77, XP002397367

Cited by
EP3290828A1; DE102016010741A1

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

DOCDB simple family (publication)
DE 102009023929 A1 20101209; BR PI1010951 A2 20180306; CA 2763417 A1 20101209; EP 2438367 A1 20120411; US 2012073315 A1 20120329; WO 2010139444 A1 20101209

DOCDB simple family (application)

DE 102009023929 A 20090604; BR PI1010951 A 20100601; CA 2763417 A 20100601; EP 10725024 A 20100601; EP 2010003301 W 20100601;
US 201113309226 A 20111201