

Title (en)
THERMODYNAMIC CLOSED LOOP DESICCANT ROTOR SYSTEM AND PROCESS

Title (de)
THERMODYNAMISCHES CLOSED-LOOP-TROCKENMITTELROTORSYSTEM UND ENTSPRECHENDES VERFAHREN

Title (fr)
SYSTÈME ET PROCÉDÉ THERMODYNAMIQUES À ROTOR DÉSHYDRATANT EN BOUCLE FERMÉE

Publication
EP 2232157 A2 20100929 (EN)

Application
EP 08870632 A 20081203

Priority
• IB 2008003935 W 20081203
• US 501107 P 20071203

Abstract (en)
[origin: US2009139254A1] A thermodynamic closed loop desiccant rotor system and process utilizes at least one closed recirculation loop that provides interchangeable energy directly to the desiccant material and various rotor isolated zoning configurations in combination with various arrangements of energy exchange devices and refrigeration components to maximize the interchangeable and recovered energy capability and capacity through both closed thermodynamic cycles and open cycle processes for significantly improved efficiency and energy conservation. The present desiccant rotor system may be utilized in an air conditioning system for dehumidification, humidification, moisture removal, and capture of moisture, and in other applications to remove unwanted gases.

IPC 8 full level
B01D 53/26 (2006.01); **F25D 17/06** (2006.01)

CPC (source: EP US)
B01D 5/0033 (2013.01 - EP US); **B01D 5/0039** (2013.01 - EP US); **B01D 5/009** (2013.01 - EP US); **B01D 53/261** (2013.01 - EP US); **F24F 3/1423** (2013.01 - EP US); **B01D 53/06** (2013.01 - EP US); **F24F 2203/1032** (2013.01 - EP US); **F24F 2203/104** (2013.01 - EP US); **F24F 2203/1056** (2013.01 - EP US); **F24F 2203/1068** (2013.01 - EP US); **F24F 2203/1088** (2013.01 - EP US); **F24F 2203/1092** (2013.01 - EP US); **Y02P 70/10** (2015.11 - EP US)

Citation (search report)
See references of WO 2009090492A2

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
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DOCDB simple family (application)
US 31556908 A 20081203; CA 2706490 A 20081203; EP 08870632 A 20081203; IB 2008003935 W 20081203