

Title (en)

FACILITY AND METHOD FOR TREATING WATER PUMPED IN A NATURAL ENVIRONMENT BY EVAPORATION/CONDENSATION

Title (de)

ANLAGE UND VERFAHREN ZUR AUFBEREITUNG VON IN EINE NATÜRLICHE UMGEBUNG GEPUMPTEM WASSER DURCH VERDAMPFUNG/KONDENSATION

Title (fr)

INSTALLATION ET PROCEDE DE TRAITEMENT PAR EVAPORATION/CONDENSATION D'EAU POMPEE EN MILIEU NATUREL

Publication

EP 3096851 A1 20161130 (FR)

Application

EP 15704354 A 20150122

Priority

- FR 1450612 A 20140124
- FR 2015050155 W 20150122

Abstract (en)

[origin: WO2015110760A1] The invention relates to a facility which comprises an evaporation device (1'), which comprises an evaporation chamber (10) intended for containing water (11) in liquid form and allowing only a portion of the water contained in the evaporation chamber (10) to be evaporated, and gas-supply means (12) for injecting a gas into the water (11) contained in the evaporation chamber (10), such as to form gas bubbles in said water, and a heat exchanger (3), which comprises cooling means (300, 310, 311 / 300, 301) and which allows at least the water vapour from the evaporation chamber (10) to be condensed. The facility comprises water-supply means (14), which make it possible to pump water in liquid form (L) in a natural environment, to send said water pumped in a natural environment through said cooling means (300, 310, 311 / 300, 301) or to bring said water into contact with said cooling means (300, 310, 311 / 300, 301), such as to allow the cooling of the water vapour from the evaporation chamber (10), and to supply the evaporation chamber (10) with said water after said water has been heated, having passed through or been brought into contact with said cooling means (300, 310, 311 / 300, 301). The evaporation chamber (10) comprises means (10c; 143) for discharging a portion of the water in liquid form (L) contained in the chamber which, in combination with the water-supply means (14), make it possible to renew the water inside the chamber such that the temperature of the water contained in the chamber (10) is kept at a temperature that is sufficient for maintaining the evaporation of a portion of the water contained in the evaporation chamber (10).

IPC 8 full level

B01D 1/14 (2006.01); **B01D 3/00** (2006.01); **B01D 3/34** (2006.01); **C02F 1/04** (2006.01)

CPC (source: EP US)

B01D 1/14 (2013.01 - EP US); **B01D 3/007** (2013.01 - EP US); **B01D 3/346** (2013.01 - EP US); **C02F 1/048** (2013.01 - EP US); **C02F 1/06** (2013.01 - US); **C02F 1/10** (2013.01 - US); **F01K 11/02** (2013.01 - US); **C02F 2103/007** (2013.01 - EP US); **C02F 2103/06** (2013.01 - EP US); **C02F 2103/08** (2013.01 - EP US); **C02F 2303/10** (2013.01 - US); **Y02A 20/124** (2017.12 - EP US)

Citation (search report)

See references of WO 2015110760A1

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2015110760 A1 20150730; CN 106029194 A 20161012; EP 3096851 A1 20161130; FR 3016876 A1 20150731; FR 3016876 B1 20210101; JP 2017503996 A 20170202; US 2017008776 A1 20170112

DOCDB simple family (application)

FR 2015050155 W 20150122; CN 201580009764 A 20150122; EP 15704354 A 20150122; FR 1450612 A 20140124; JP 2016548287 A 20150122; US 201515113401 A 20150122