

Title (en)

INTERMEDIATE POWER STORE FOR POWER GENERATING SYSTEMS

Title (de)

ENERGIEZWISCHENSPEICHER FÜR STROMERZEUGUNGSANLAGEN

Title (fr)

RÉSERVOIR INTERMÉDIAIRE D'ÉNERGIE POUR INSTALLATIONS DE PRODUCTION D'ÉLECTRICITÉ

Publication

EP 4314554 A1 20240207 (DE)

Application

EP 22718084 A 20220321

Priority

- DE 102021107575 A 20210325
- EP 2022057377 W 20220321

Abstract (en)

[origin: WO2022200288A1] The invention relates to an intermediate power store for at least one power generating system (50), comprising: an osmosis device (110), a permeate store (120), a concentrate store (130) and a control device (140). The osmosis device (110) is designed to separate, in a charging operation, a liquid mixture (10) with a charging pressure (P1) into a permeate (20) and a concentrate (30), or, in a discharging operation, to mix the permeate (20) with the concentrate (30) while applying an osmotic pressure to the liquid mixture (10). The permeate store (120) is fluidically connected to the osmosis device (110) and is designed to store the permeate (20). The concentrate store (130) is fluidically connected to the osmosis device (110) and is designed to store the concentrate (30). The control device (140) is designed to control the following functions: the charging operation using electrical power from the at least one power generating system (50), or the discharging operation while providing electrical power.

IPC 8 full level

F03G 7/00 (2006.01); **B01D 61/00** (2006.01); **B01D 61/02** (2006.01)

CPC (source: EP US)

B01D 61/002 (2013.01 - EP); **B01D 61/025** (2013.01 - EP US); **B01D 61/06** (2013.01 - EP US); **B01D 61/08** (2013.01 - US);
B01D 61/12 (2013.01 - US); **B01D 61/58** (2013.01 - EP); **F03G 7/015** (2021.08 - EP US); **H02J 3/38** (2013.01 - US); **H02K 7/183** (2013.01 - US);
H02S 10/12 (2014.12 - US); **B01D 2313/243** (2013.01 - US); **B01D 2313/246** (2013.01 - US); **B01D 2313/501** (2022.08 - US);
B01D 2313/502 (2022.08 - US); **H02J 2300/24** (2020.01 - US); **H02J 2300/28** (2020.01 - US)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021107575 A1 20220929; EP 4314554 A1 20240207; JP 2024511746 A 20240315; US 2024186793 A1 20240606;
WO 2022200288 A1 20220929

DOCDB simple family (application)

DE 102021107575 A 20210325; EP 2022057377 W 20220321; EP 22718084 A 20220321; JP 2023555783 A 20220321;
US 202218283869 A 20220321