

Title (en)
HEAT EXCHANGER AND ADSORPTION MACHINE

Title (de)
WÄRMEÜBERTRAGER UND ADSORPTIONSMASCHINE

Title (fr)
ÉCHANGEUR DE CHALEUR ET MACHINE D'ADSORPTION

Publication
EP 4078048 A1 20221026 (DE)

Application
EP 20824920 A 20201210

Priority
• DE 102019134587 A 20191216
• EP 2020085594 W 20201210

Abstract (en)
[origin: WO2021122327A1] The invention relates to a heat exchanger (10) of an adsorption machine, comprising - at least two heat transport pipes (15) and/or heat transport pipe sections, which are arranged at a distance (A) with respect to one another in such a way as to form at least one interspace, which is designed as a steam flow duct (18), - and pipe attachments (20) connected to the heat transport pipes (15) and/or heat transport pipe sections. According to the invention, the pipe attachments (20) are arranged in the interspace and designed as a substrate for a directly applied, binder-free active material coating (25), wherein the heat transfer grid (50) consisting of the coated pipe attachments (20) together with the heat transport pipes (15) and/or heat transport pipe sections has a steam-side outer surface of 500 – 3600 m²/m³.

IPC 8 full level
F25B 17/08 (2006.01); **B01J 20/00** (2006.01); **F25B 37/00** (2006.01); **F28D 21/00** (2006.01); **F28F 1/12** (2006.01); **F28F 13/00** (2006.01); **F28F 13/18** (2006.01)

CPC (source: EP KR US)
B01J 20/3204 (2013.01 - EP KR); **B01J 20/3236** (2013.01 - EP KR); **B01J 20/3238** (2013.01 - EP KR); **F25B 17/08** (2013.01 - US); **F25B 37/00** (2013.01 - EP KR); **F28D 21/00** (2013.01 - KR); **F28F 1/12** (2013.01 - EP KR US); **F28F 13/003** (2013.01 - EP); **F28F 13/185** (2013.01 - EP KR US); **F25B 17/08** (2013.01 - EP KR); **F28D 2021/0068** (2013.01 - EP KR); **Y02A 30/27** (2017.12 - EP)

Citation (search report)
See references of WO 2021122327A1

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 102019134587 A1 20210617; **DE 102019134587 B4 20230112**; CN 114761739 A 20220715; EP 4078048 A1 20221026; JP 2023506498 A 20230216; KR 20220110849 A 20220809; US 2022404107 A1 20221222; WO 2021122327 A1 20210624

DOCDB simple family (application)
DE 102019134587 A 20191216; CN 202080081870 A 20201210; EP 2020085594 W 20201210; EP 20824920 A 20201210; JP 2022536586 A 20201210; KR 20227024586 A 20201210; US 202017770729 A 20201210