

Title (en)

SYSTEM FOR DECONTAMINATING WATER AND GENERATING WATER VAPOR

Title (de)

SYSTEM ZUR DEKONTAMINIERUNG VON WASSER UND ERZEUGUNG VON WASSERDAMPF

Title (fr)

SYSTÈME DE DÉCONTAMINATION DE L'EAU ET DE PRODUCTION DE VAPEUR D'EAU

Publication

EP 4168363 A1 20230426 (EN)

Application

EP 21838907 A 20210617

Priority

- US 202016922189 A 20200707
- US 2021037802 W 20210617

Abstract (en)

[origin: WO2022010630A1] A system and method for decontaminating a fluid and recovered vapor, particularly processing and recycling water used in an oil zone steam process, utilizing a vaporizer-desalination unit to separate a contaminated water flow into a contaminated disposal flow and a clean water vapor flow. The contaminated water flow is recovered after separation from a combined oil and water flow from an oil well. The clean water vapor flow is preferably passed through a steam generator to produce the steam used in the oil zone steam process. The steam is injected into the oil zone of a designated well and then extracted as the combined oil and water flow. Once primed with sufficient external water, the system and method is designed to operate continuously with minimal replenishment because of the water/vapor/steam cycle.

IPC 8 full level

C02F 9/00 (2023.01); **C02F 1/00** (2023.01); **C02F 1/02** (2023.01); **C02F 3/30** (2023.01)

CPC (source: EP IL)

B01D 1/26 (2013.01 - EP IL); **C02F 1/004** (2013.01 - EP IL); **C02F 1/04** (2013.01 - EP IL); **C02F 1/38** (2013.01 - EP IL); **C02F 1/40** (2013.01 - IL); **C02F 1/20** (2013.01 - EP); **C02F 1/40** (2013.01 - EP); **C02F 2101/32** (2013.01 - EP IL); **C02F 2103/08** (2013.01 - EP IL); **C02F 2209/02** (2013.01 - EP IL); **C02F 2209/03** (2013.01 - EP IL); **C02F 2301/046** (2013.01 - EP IL); **C02F 2303/10** (2013.01 - EP IL); **Y02A 20/124** (2018.01 - EP IL); **Y02A 20/131** (2018.01 - EP IL); **Y02A 20/152** (2018.01 - EP IL); **Y02W 10/30** (2015.05 - EP IL); **Y02W 10/37** (2015.05 - EP IL)

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)

WO 2022010630 A1 20220113; AU 2021304862 A1 20230216; BR 112023000288 A2 20230411; CA 3185135 A1 20220113; CL 2023000057 A1 20230707; CN 116075484 A 20230505; CO 2023001097 A2 20230508; EP 4168363 A1 20230426; EP 4168363 A4 20240724; IL 299728 A 20230301; IL 299728 B1 20240601; KR 20230035617 A 20230314; MX 2023000399 A 20230202

DOCDB simple family (application)

US 2021037802 W 20210617; AU 2021304862 A 20210617; BR 112023000288 A 20210617; CA 3185135 A 20210617; CL 2023000057 A 20230105; CN 202180055175 A 20210617; CO 2023001097 A 20230131; EP 21838907 A 20210617; IL 29972823 A 20230105; KR 20237004261 A 20210617; MX 2023000399 A 20210617