

Title (en)

BIOCHEMICAL REACTOR

Title (de)

BIOCHEMISCHER REAKTOR

Title (fr)

RÉACTEUR BIOCHIMIQUE

Publication

EP 3541919 A4 20200708 (EN)

Application

EP 17871140 A 20171117

Priority

- US 201615358069 A 20161121
- US 201615358050 A 20161121
- US 201715468028 A 20170323
- US 201715468033 A 20170323
- US 201715468038 A 20170323
- US 201715468043 A 20170323
- US 2017062325 W 20171117

Abstract (en)

[origin: WO2018094224A1] This disclosure describes a biochemical reactor. The biochemical reactor may include a tank configured to house immobilized carriers and fluid. The biochemical reactor may include a circulation conduit at least partially disposed within the tank. The biochemical reactor may include one or more vanes configured to cause the immobilized carriers and the fluid exiting a circulation outlet opening to enter into a helical pattern. The biochemical reactor may include an unclogging pipe configured to clear clogging of the circulation conduit. Clearing clogging of the circulation conduit may include directing a pressurized flow of air to the circulation conduit via the unclogging pipe. The biochemical reactor may include one or more side nozzles configured to induce a tangential flow of fluid within the tank. The biochemical reactor may include an immovable feed conduit having a feed outlet. The feed outlet may be disposed between a first end and a circulation inlet opening. The biochemical reactor may include a tank inlet configured for feeding fluid into the tank. The biochemical reactor may include a tank outlet configured for drawing fluid from the tank. The biochemical reactor may include a first divider and a second divider. The tank inlet may be disposed between the first divider and the second divider. The second divider may include a support structure including a grating configured to withstand variable loads.

IPC 8 full level

C12M 1/00 (2006.01); **C02F 3/28** (2006.01); **C02F 3/30** (2006.01); **C12M 1/08** (2006.01)

CPC (source: EP)

C02F 3/085 (2013.01); **C02F 3/104** (2013.01); **C02F 3/2833** (2013.01); **C02F 3/2873** (2013.01); **C02F 3/305** (2013.01); **C12M 25/20** (2013.01);
C12M 29/00 (2013.01); **C02F 2301/026** (2013.01); **Y02W 10/10** (2015.05)

Citation (search report)

- [XY] US 5811259 A 19980922 - HALL PETER JANS [US]
- [Y] US 2010527 A 19350806 - ERNEST RINFRET
- [Y] EP 2706044 A1 20140312 - SIEMENS AG [DE]
- [Y] WO 2016100903 A2 20160623 - TEXAS A & M UNIV SYS [US]
- See references of WO 2018094224A1

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

DOCDB simple family (publication)

WO 2018094224 A1 20180524; AU 2017363198 A1 20190606; CA 3044536 A1 20180524; EP 3541919 A1 20190925; EP 3541919 A4 20200708

DOCDB simple family (application)

US 2017062325 W 20171117; AU 2017363198 A 20171117; CA 3044536 A 20171117; EP 17871140 A 20171117