

Title (en)

BIOREACTOR WITH SEPARATE OXYGENATION AND TRICKLING FILTER AREAS, AND TREATMENT METHOD

Title (de)

BIOREAKTOR MIT SEPARATEN SAUERSTOFFANREICHERUNGS- UND TROPFKÖRPERBEREICHEN SOWIE BEHANDLUNGSVERFAHREN

Title (fr)

BIOREACTEUR A OXYGENATION ET LITS BACTERIENS SEPARES ET PROCEDE DE TRAITEMENT

Publication

EP 2571820 A1 20130327 (FR)

Application

EP 11727206 A 20110517

Priority

- FR 1002091 A 20100518
- FR 2011000298 W 20110517

Abstract (en)

[origin: WO2011161329A1] The invention relates to a system (1) for the biological treatment of liquid effluents, comprising a first "oxygenation" tank (2) and at least two other "trickling filter" tanks (3, 4) including a microorganism retaining packing (3a, 4a), in which tank 2 is connected to tanks 3 and 4 by means of a pipe (20) divided into a pipe (20a) for supplying tank 3 and a pipe (20b) for supplying tank 4. The system (1) also comprises: a pipe (25a) for discharging effluent from tank 3 and a pipe (25b) for discharging effluent from tank 4, which pipes (25a, 25b) are connected to a common discharge pipe (21) having an effluent circulation pump (17) disposed thereon; a pipe (22) for recirculating the treated effluent leaving tanks 3 and 4 in the direction of tank 2, said pipe (22) including a valve (15); and a pipe (23) for releasing the effluent from the system (1) to the exterior, said pipe (23) including a valve (16). The tanks (3, 4) each comprise a level sensor (3c, 4c) and are interconnected by means of a pipe (18) located in the lower part thereof. In addition, pipe 20a comprises a valve (5), pipe 20b comprises a valve (7), pipe 25a comprises a valve (9) and pipe 25b comprises a valve (10), and the opening of said valves (5, 7, 9, 10) is controlled by control means, such as to define an effluent circulation path in which the effluent first passes through tank 3, on through pipe 18 and into tank 4, or the effluent first passes through tank 4, on through pipe 18 and into tank 3.

IPC 8 full level

C02F 3/00 (2006.01); **C02F 3/06** (2006.01); **C02F 3/12** (2006.01)

CPC (source: EP)

C02F 3/006 (2013.01); **C02F 3/06** (2013.01); **C02F 3/121** (2013.01); **C02F 3/1226** (2013.01); **C02F 2209/42** (2013.01); **C02F 2303/16** (2013.01); **C02F 2303/20** (2013.01); **Y02W 10/10** (2015.05)

Citation (search report)

See references of WO 2011161329A1

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)

FR 2960159 A1 20111125; FR 2960159 B1 20121207; EP 2571820 A1 20130327; WO 2011161329 A1 20111229

DOCDB simple family (application)

FR 1002091 A 20100518; EP 11727206 A 20110517; FR 2011000298 W 20110517