

(19) World Intellectual Property Organization
International Bureau



(10) International Publication Number
WO 2016/167663 A9

(43) International Publication Date
20 October 2016 (20.10.2016)

- (51) International Patent Classification:
C02F 3/28 (2006.01) C02F 103/32 (2006.01)
C02F 1/24 (2006.01)
- (21) International Application Number:
PCT/NL2016/050269
- (22) International Filing Date:
15 April 2016 (15.04.2016)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PCT/NL2015/050261 17 April 2015 (17.04.2015) NL
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,

DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

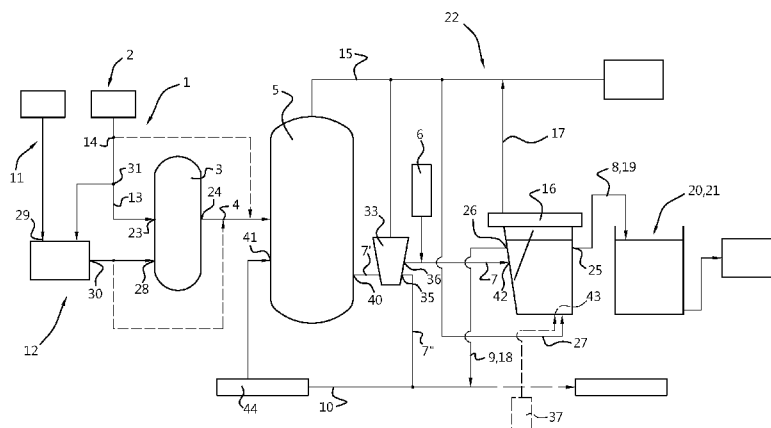
Published:
— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the revised international search report:
5 January 2017

(15) Information about Correction:
see Notice of 5 January 2017

(54) Title: METHOD AND SYSTEM FOR ANAEROBIC TREATMENT OF ORGANICALLY LOADED WASTEWATER

Fig. 1



(57) Abstract: In a method of anaerobic treatment of an organic waste stream (1), a stream originating from an anaerobic reactor (5) is fed to a first separating unit (33) to be separated into a sludge fraction (7") containing between 50 % and 80 % of the solids by weight and a second fraction (7). The second fraction (7) is fed from the first separating unit (33) into a Dissolved Gas Flootation (DGF) unit (16). The sludge fractions (7") and (9) from the separator units (33) and (16) are fed back to an inlet 41 of the reactor 5.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2016/050269

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C02F3/28 C02F1/24
 ADD. C02F103/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 C02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2013/155631 A1 (ANAERGIA INC [CA]) 24 October 2013 (2013-10-24)	1-4,6-8
Y	figures 1,2 paragraphs [0029], [0049], [0054] -----	5
Y	US 5 015 384 A (BURKE DENNIS A [US]) 14 May 1991 (1991-05-14) cited in the application column 4, line 62 - line 64 -----	5

Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search 1 November 2016	Date of mailing of the international search report 08/11/2016
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/NL2016/050269

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013155631 A1	24-10-2013	EP 2838855 A1	25-02-2015
		WO 2013155631 A1	24-10-2013

US 5015384 A	14-05-1991	CA 2102797 A1	11-11-1992
		US 5015384 A	14-05-1991
