



(43) International Publication Date
29 November 2012 (29.11.2012)

- (51) International Patent Classification:
C02F 3/00 (2006.01) C02F 3/10 (2006.01)
C02F 3/34 (2006.01) C02F 9/14 (2006.01)
- (21) International Application Number:
PCT/US2012/039393
- (22) International Filing Date:
24 May 2012 (24.05.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/489,935 25 May 2011 (25.05.2011) US
- (71) Applicant (for all designated States except US): SAM HOUSTON STATE UNIVERSITY [US/US]; P.O.Box 2026, Huntsville, Texas 77341 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JONES, Robert, Gavin [US/US]; 1602 19th Street, Huntsville, Texas 78340 (US). GRISHAM, Phillip [US/US]; 493 Zambezi Lane, Bullard, Texas 75757 (US). WILSON, Kenneth [US/US]; 323 Chimney Rock, Apt. 817, Tyler, Texas 75703 (US). HOLLAND, Sabin [US/US]; 82 Fledgling Path Street, The Woodlands, Texas 77382 (US). RAINONE, Michael, D. [US/US]; 420 Private Road 8315, Palestine, Texas 75803 (US).

(74) Agent: Meyertons, Eric B.; Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C., P.O. Box 398, Austin, TX 78767-0398 (US).

(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, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, 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, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:
21 March 2013

(54) Title: MODIFICATION OF EXISTING WASTEWATER SYSTEMS WITH SUBSTRATE SUPPORTED BIOFILMS

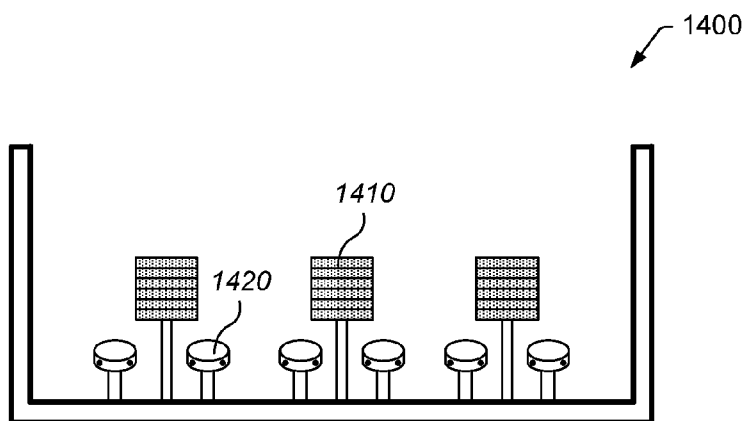


FIG. 12

(57) Abstract: In some embodiments, a wastewater treatment system may reduce contaminants in water. A system may include one or more basins which include a substrate that supports a biofilm. The bacteria used to form the biofilm may be selected to maximize the reduction of contaminants in water. Various components of the wastewater treatment system may be optimized to improve the efficiency and energy consumption of the wastewater system.

WO 2012/162530 A3

A. CLASSIFICATION OF SUBJECT MATTER*C02F 3/00(2006.01)i, C02F 3/34(2006.01)i, C02F 3/10(2006.01)i, C02F 9/14(2006.01)i*

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 3/00; C02F 1/32; C02F 3/08; C02F 3/30; C02F 3/12; C02F 3/06; C02F 3/10

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: biofilm, filter, media

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 20-0368392 Y1 (CHANG, Y. H.) 20 November 2004 See abstract, figures 2-4, pages 2-4 and claim 1.	1-3, 11
X	JP 07-251191 A (UNITIKA CO., LTD.) 03 October 1995 See abstract, figures 1-3, paragraphs 0025 and claims 1-3.	1, 11
X	US 2005-0150829 A1 (CHEN, JEFFREY J.) 14 July 2005 See abstract, figure 1, paragraphs 0011-0031 and claims 1, 17.	1, 11
X	JP 05-192677 A (RAIZAA KOGYO CO., LTD.) 03 August 1993 See abstract, figure 1 and paragraphs 0001-0036.	1, 11
X	US 2006-0163154 A1 (TAY, JOO HWA et al.) 27 July 2006 See abstract, figures 1-3, paragraphs 0056, 0076, 0110-0115 and claim 1.	1, 11

 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

07 DECEMBER 2012 (07.12.2012)

Date of mailing of the international search report

10 DECEMBER 2012 (10.12.2012)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM Dae Young

Telephone No. 82-42-481-8651



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/039393

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