

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
29 August 2019 (29.08.2019)



(10) International Publication Number
WO 2019/161492 A1

(51) International Patent Classification:
B09B 3/00 (2006.01) *C02F 3/28* (2006.01)
C02F 1/40 (2006.01)

(21) International Application Number:
PCT/CA2019/050206

(22) International Filing Date:
20 February 2019 (20.02.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/633,651 22 February 2018 (22.02.2018) US

(71) Applicant: ANAERGIA INC. [CA/CA]; 4210 South Service Road, Burlington, Ontario L7L 4X5 (CA).

(72) Inventors: **BENEDEK, Andrew**; P.O. Box 688, Rancho Santa Fe, California 92067 (US). **JOSSE, Juan Carlos**; 1 Pheasant Lane, Aliso Viejo, California 92656 (US).

(74) Agent: **PUNDSACK, Scott R.**; BORDEN LADNER GERVAIS LLP, World Exchange Plaza, 100 Queen Street, Suite 1300, Ottawa, Ontario K1P 1J9 (CA).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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,

(54) Title: ANAEROBIC DIGESTION OF ORGANIC FRACTION OF SOLID WASTE WITH HIGH QUALITY DIGESTATE

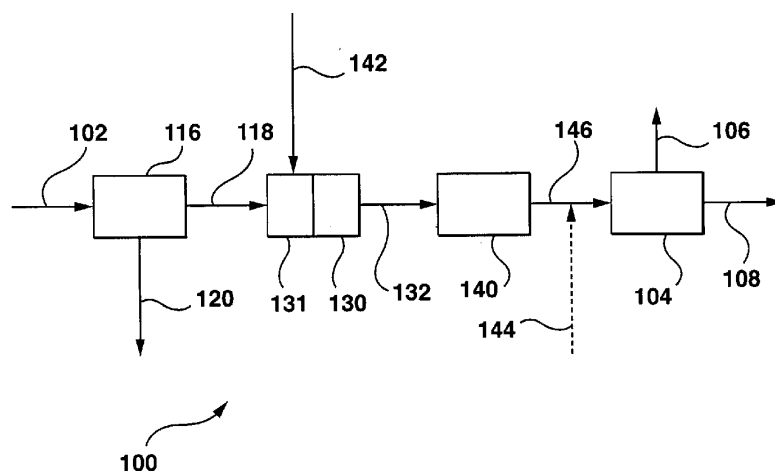


FIG. 1

(57) Abstract: Organic solid waste is pressed at a high pressure to separate the solid waste into a dry fraction and a wet fraction. The wet fraction is diluted and floatables (i.e. pieces of plastic and/or paper) in the wet fraction are comminuted. The wet fraction is then de-gritted before being sent to an anaerobic digester. Digestate is withdrawn from the digester from a free liquid surface of the digester. The digestate is filtered to extract comminuted floatables. The resulting filtrate is then composted or directly applied to land. A corresponding system comprises a press, a grinder, a hydrocyclone, an anaerobic digester, a filter and a dewaterer.

[Continued on next page]

WO 2019/161492 A1

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))*