

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
24 September 2020 (24.09.2020)



(10) International Publication Number
WO 2020/188606 A1

(51) International Patent Classification:
D21B 1/36 (2006.01)

(21) International Application Number:
PCT/IS2020/050009

(22) International Filing Date:
20 March 2020 (20.03.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
050258 20 March 2019 (20.03.2019) IS

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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, 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, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: STEAM-EXPLOSION EQUIPMENT AND METHOD FOR TREATMENT OF ORGANIC MATERIAL

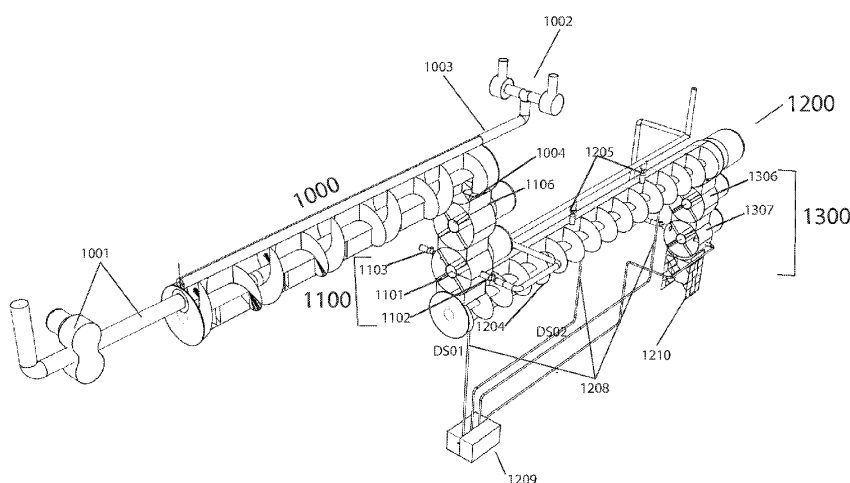


Figure 2

(57) Abstract: A continuous-flow steam explosion reactor for pretreatment of organic material for further processing to value-added products is provided. The reactor comprises a loading section, a high-pressure retention section with an adjustable-speed conveyor, a pressure relief section and a discharge section. The reactor comprises means for providing steam into at least said high-pressure retention section and means for providing pressurized gas (e.g. air) to further boost pressure. The loading section is suitably configured to transfer material from ambient pressure to the high-pressure retention section while retaining high pressure and temperature in the high-pressure retention section, and the pressure relief section configured to transfer material from the high-pressure retention section to a discharge section while retaining high pressure in the high-pressure retention section. The pressure relief section is configured to release material with a drop in pressure to said discharge section while retaining high pressure in the high-pressure retention section.

[Continued on next page]

(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))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*