

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 March 2024 (07.03.2024)



(10) International Publication Number
WO 2024/046898 A1

(51) International Patent Classification:

C10G 1/10 (2006.01) *B01J 8/00* (2006.01)
B01D 21/26 (2006.01) *B04C 5/04* (2006.01)
B01D 53/24 (2006.01)

(21) International Application Number:

PCT/EP2023/073343

(22) International Filing Date:

25 August 2023 (25.08.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2032925	31 August 2022 (31.08.2022)	NL
2032926	31 August 2022 (31.08.2022)	NL
2032927	31 August 2022 (31.08.2022)	NL
2032928	31 August 2022 (31.08.2022)	NL
2032929	31 August 2022 (31.08.2022)	NL

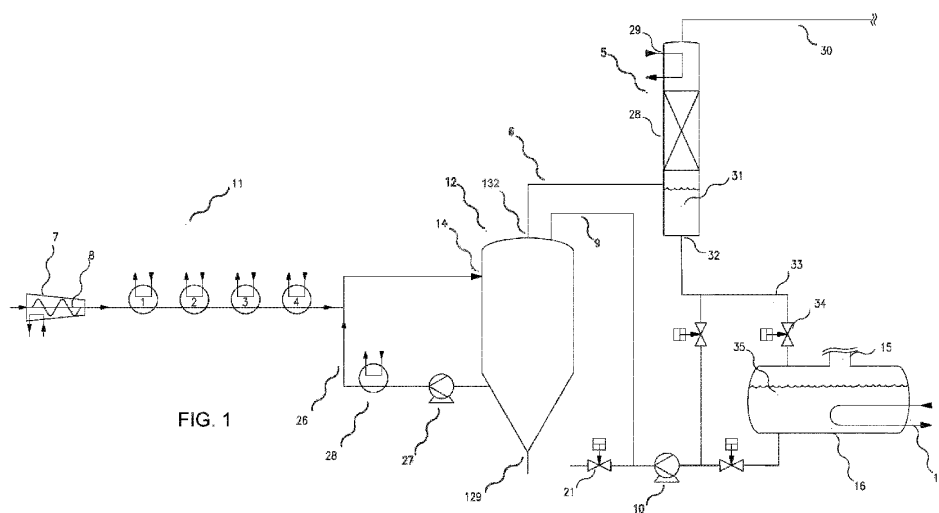
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(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,

(54) Title: SYSTEM FOR SEPARATION OF GAS, LIQUID, AND SOLID PARTICLES IN A MATERIAL



(57) Abstract: There is provided an apparatus for pyrolyzing waste plastics to one or more hydrocarbon products, preferably at least one or more liquid hydrocarbon products, the apparatus comprising: a heating device, preferably a heat exchanger, for receiving and heating waste plastic to pyrolysis temperature; a separator vessel downstream of the heating device, wherein the separator vessel comprises: an inlet arranged to receive pyrolysis temperature, gaseous and liquid plastics waste from the heating device, an upper outlet for exit of gaseous material; and a hollow body with a bottom portion that is substantially conical; wherein the substantially conical bottom portion has an opening angle is from about 30° to about 70°.

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MA, MD, MG, MK, MN, MU, 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.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))*
- *in black and white; the international application as filed
contained color or greyscale and is available for download
from PATENTSCOPE*