

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 March 2022 (03.03.2022)



(10) International Publication Number
WO 2022/046990 A2

- (51) **International Patent Classification:**
Not classified
- (21) **International Application Number:**
PCT/US2021/047688
- (22) **International Filing Date:**
26 August 2021 (26.08.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/071,404 28 August 2020 (28.08.2020) US
17/411,811 25 August 2021 (25.08.2021) US
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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, IT, 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,

(54) **Title:** A HELICAL STIRRING SYSTEM FOR A PLASTIC CONVERSION VESSEL

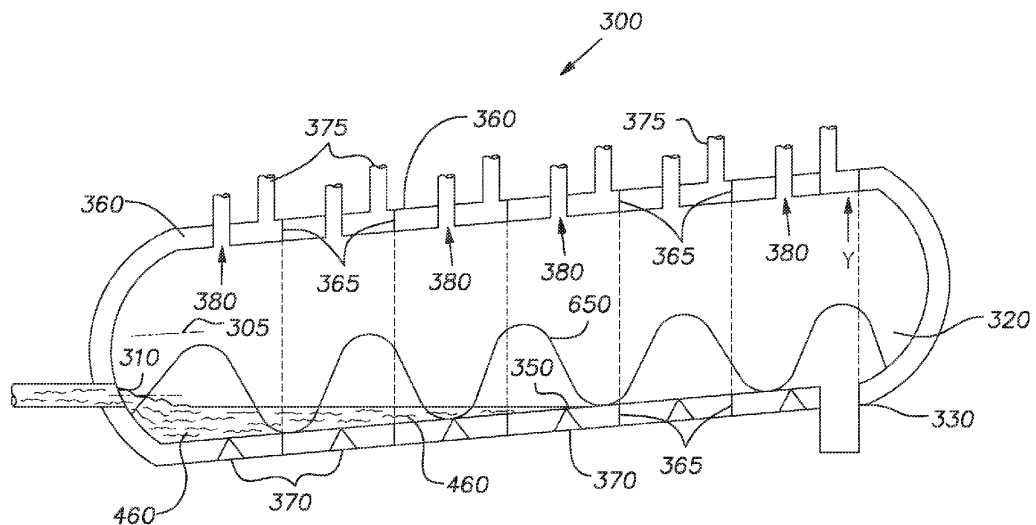


FIG. 1

(57) **Abstract:** A plastic pyrolytic conversion vessel comprises a conveying mechanism for moving a liquid, or a semi-molten, or a molten waste material, or a solid inert residue, or any combination thereof through the vessel. During pyrolyzation of the waste material, the same is heated and vaporized and undergoes in situ chemical reactions comprising cracking, recombination, reforming, re cracking, and the like, and is subsequently removed from the vessel. A plurality of scraper blades serve to mix the liquid, or the semi-molten, or the molten waste material, or a solid inert residue, or any combination thereof and convey the waste material forward toward a vessel egress. In another embodiment, one or more sweeping devices serve to move forward the waste material that is located between adjacent rotating conveyer devices.

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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, 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:

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