

(19) World Intellectual Property Organization
International Bureau



PCT



(10) International Publication Number
WO 2008/108928 A1

(51) International Patent Classification:
B01J 4/00 (2006.01) *C08G 63/78* (2006.01)
B01J 19/24 (2006.01)

(21) International Application Number: PCT/US2008/002270

(22) International Filing Date: 21 February 2008 (21.02.2008)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) Priority Data:
11/715,546 8 March 2007 (08.03.2007) US

(71) Applicant: EASTMAN CHEMICAL COMPANY
[US/US]; 200 South Wilcox Drive, Kingsport, TN 37660
(US).

(72) **Inventor:** DEBRUIN, Bruce, Roger; 119 Chadwick Trail, Lexington, SC 29072 (US).

(74) **Agent: OWEN, Steven, A.;** P.o. Box 511, Kingsport, TN 37662-5075 (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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(54) Title: POLYESTER PRODUCTION SYSTEM EMPLOYING AN UNAGITATED ESTERIFICATION REACTOR

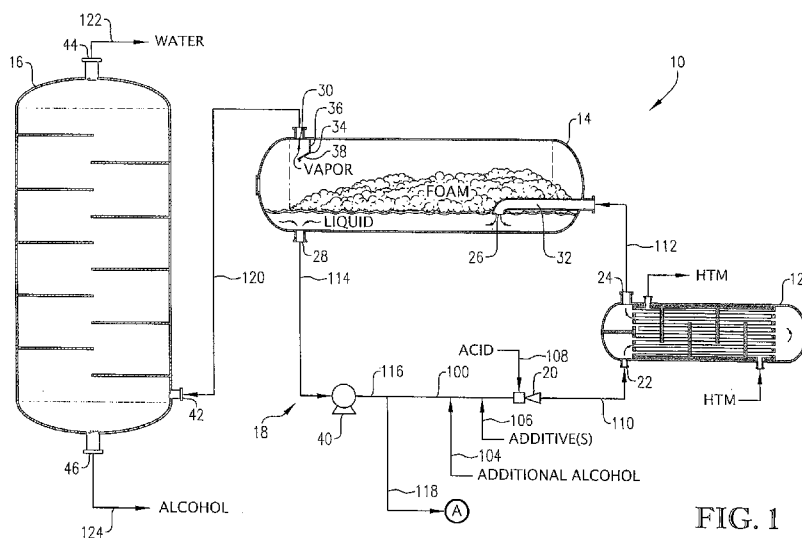


FIG. 1

(57) Abstract: A polyester production system employing a vertically elongated esterification reactor. The esterification reactor of the present invention is an improvement over conventional CSTR esterification reactors because, for example, in one embodiment, the reactor requires little or no mechanical agitation. Further, in one embodiment, the positioning of the inlets and outlets of the reactor provides improved operational performance and flexibility over CSTRs of the prior art.