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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 October 2008 (09.10.2008)

PCT

(10) International Publication Number
WO 2008/121187 A1

(51) International Patent Classification:
C08F 10/02 (2006.01) *C08F 2/00* (2006.01)
C08F 2/34 (2006.01) *C08F 4/69* (2006.01)

(21) International Application Number:
PCT/US2008/002311

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

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/920,998 30 March 2007 (30.03.2007) US

(71) Applicant *(for all designated States except US)*: **UNIVATION TECHNOLOGIES, LLC** [US/US]; 5555 San Felipe St. Suite 1950, Houston, TX 77056-2746 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **EISINGER, Ronald, S.** [US/US]; 1503 Rockford Court, Charleston, WV 25314 (US). **GOODE, Mark, G.** [US/US]; 17 Meadowbrook Circle, Hurricane, WV 25526 (US).

(74) Agents: **ARECHEDERRA, III, Leandro** et al.; Univation Technologies, LLC, 5555 San Felipe St., Suite 1950, Houston, TX 77056-2746 (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, 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, 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,

[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR FABRICATING POLYOLEFINS

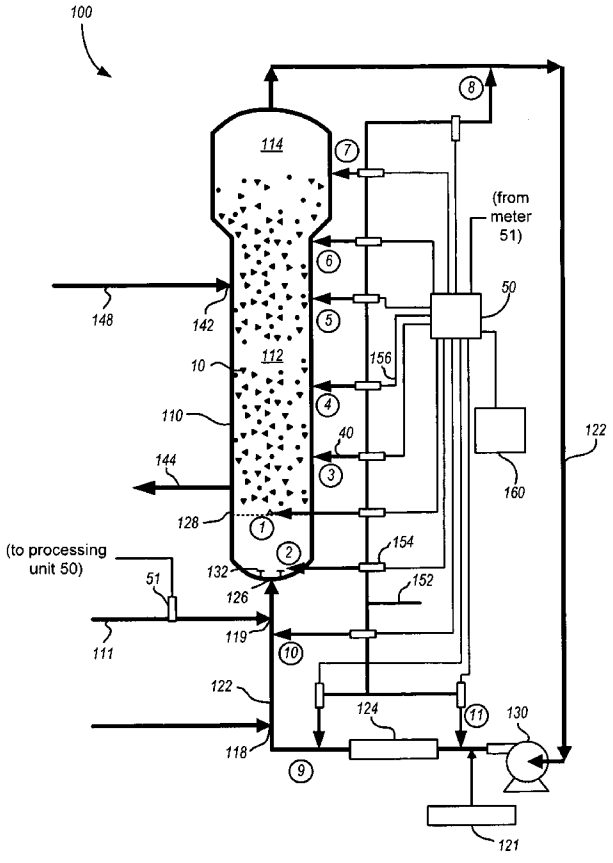

Figure 1

(57) Abstract: Various methods and systems for using oxygen in a polyolefin polymerization reactor system are provided. In certain embodiments, the methods are performed in conjunction with a polymerization reactor system such as a gas-phase reactor system.

WO 2008/121187 A1

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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report*