

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 March 2009 (12.03.2009)

PCT

(10) International Publication Number
WO 2009/030644 A1

(51) International Patent Classification:
C08F 10/02 (2006.01) *C08F 2/14* (2006.01)
C08F 2/12 (2006.01)

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(21) International Application Number:
PCT/EP2008/061369

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

(22) International Filing Date: 29 August 2008 (29.08.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
07253479.5 3 September 2007 (03.09.2007) EP

(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).

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))*
- *of inventorship (Rule 4.17(iv))*

Published:

- *with international search report*

(54) Title: SLURRY PHASE POLYMERISATION PROCESS

(57) Abstract: A polymerisation process is disclosed in which polyethylene is produced in slurry in a polymerisation reactor in the presence of a Ziegler Natta catalyst and an activator, and slurry containing the polymer is withdrawn from the reactor and transferred to a flash tank operating at a pressure and temperature such that at least 50mol% of the liquid component of the slurry is withdrawn from the flash tank as a vapour and at least 98mol%, more preferably at least 98.5mol%, and most preferably at least 99.5mol%, of the vapour withdrawn from the flash tank is capable of being condensed at a temperature of between 15 and 40C without compression, wherein a by-product suppressor, which reduces the amount of by-product formed per unit of polyethylene produced by at least 10% compared with an identical polymerisation process where the by-product suppressor is not present, is used in the reactor.



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