

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 December 2022 (22.12.2022)



(10) International Publication Number
WO 2022/263721 A1

(51) International Patent Classification:

C08F 2/01 (2006.01) *C08F 2/02* (2006.01)
B01J 19/18 (2006.01) *C08F 4/14* (2006.01)
B01J 3/00 (2006.01) *C07C 2/06* (2006.01)
B01J 3/04 (2006.01) *C10G 50/00* (2006.01)
C08F 110/14 (2006.01)

(21) International Application Number:

PCT/FI2022/050414

(22) International Filing Date:

14 June 2022 (14.06.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20215704 15 June 2021 (15.06.2021) FI

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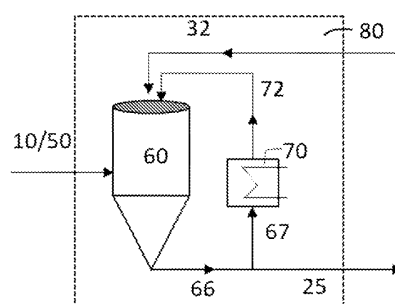
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, 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, 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).

(54) Title: PROCESS AND APPARATUS FOR PRODUCING POLY-ALPHA-OLEFINS

Figure 1

1B



(57) Abstract: The current invention relates to a process for producing poly- α -olefins (PAO), comprising reacting olefin monomers in the presence of a catalyst complex to form PAO product. The reaction is performed in a reaction comprising a reactor vessel and a system for recycling and cooling part of reactor outlet stream. At least one reactor is a cone reactor with a first cross sectional area in an upper part of the vessel and the cross sectional area decreases downwards to a second cross sectional area, which is smaller than the first cross sectional area. The invention also relates to an apparatus for carrying out the process.

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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))*

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*