

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 October 2020 (22.10.2020)



(10) International Publication Number
WO 2020/214423 A1

(51) International Patent Classification:
C07C 67/08 (2006.01) C07C 67/58 (2006.01)
C07C 67/54 (2006.01)

(21) International Application Number:
PCT/US2020/026283

(22) International Filing Date:
02 April 2020 (02.04.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/834,462 16 April 2019 (16.04.2019) US

(71) Applicant: **ROHM AND HAAS COMPANY** [US/US];
400 Arcola Road, Collegeville, Pennsylvania 19426 (US).

(72) Inventors: **CHAKRABARTI, Reetam**; 400 Arcola Road, Collegeville, Pennsylvania 19426 (US). **NGO, Minh N.**; 400 Arcola Road, Collegeville, Pennsylvania 19426 (US). **ELDER, James**; 6519 State Highway 225, Deer Park, Texas 77536 (US).

(74) Agent: **MUTSCHLER, Brian L.**; The Dow Chemical Company, Intellectual Property, P. O. Box 1967, Midland, Michigan 48641-1967 (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, 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, 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,

(54) Title: ACID CATALYZED SYNTHESIS OF METHYL ACRYLATE FROM ACRYLIC ACID AND METHANOL

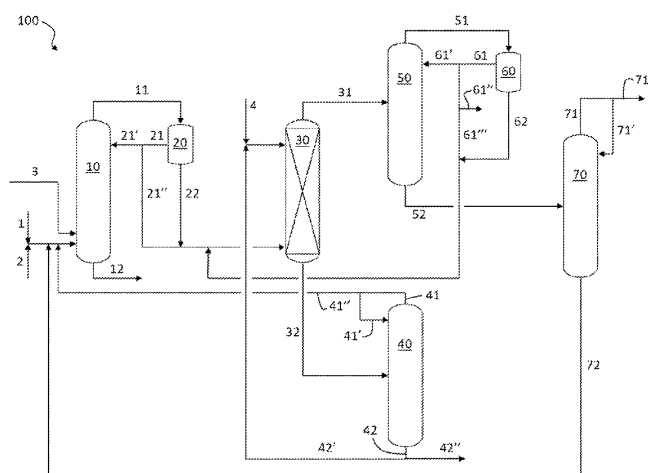


FIGURE 1

(57) Abstract: A method for preparing methyl acrylate comprises: a) heating in a reaction zone a mixture comprising acrylic acid, methanol, and an acid catalyst to react and form a reaction product comprising methyl acrylate which is vaporized with other light components and then fed to a distillation zone, wherein a feed stream entering the reaction zone comprises methanol to acrylic acid in a molar ratio of greater than 1 and less than 2, and a residence time in the reaction zone ranges from 0.25 to 2 hours; b) condensing and phase-separating a distillate from the distillation zone to form an organic phase comprising methyl acrylate and an aqueous phase; c) returning a portion of the organic phase to the distillation zone as organic reflux; and d) feeding the remainder of the organic phase and the aqueous phase of the distillation zone to an extraction column to form a methanol rich aqueous effluent and an organic effluent comprising methyl acrylate.

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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).

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 (Art. 21(3))*