

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 June 2020 (25.06.2020)



(10) International Publication Number
WO 2020/124222 A1

(51) International Patent Classification:

C08F 8/22 (2006.01) C08F 210/12 (2006.01)

(21) International Application Number:

PCT/CA2019/051835

(22) International Filing Date:

17 December 2019 (17.12.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

18215140.7 21 December 2018 (21.12.2018) EP

(71) Applicant: **ARLANXEO CANADA INC.** [CA/CA]; 1265
Vidal Street South, Sarnia, Ontario N7T 7M2 (CA).

(72) Inventor: **MURRAY, Adrian H.**; 72 Spencer Crescent,
London, Ontario N5X 2K6 (CA).

(74) Agent: **BRUNET & CO.**; 401 Bay St., Suite 1600, Toron-
to, Ontario M5H 2Y4 (CA).

(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,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, 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))

(54) Title: HALOGEN RECOVERY IN A WET PROCESS FOR HALOGENATING UNSATURATED ISOOLEFIN COPOLYMER

(57) Abstract: A process for producing a halogenated isoolefin copolymer involves contacting an unsaturated isoolefin copolymer cement, the cement containing an unsaturated isoolefin copolymer dissolved in an organic solvent, under halogenation conditions with a halogenating agent and an aqueous solution of an organic peracid oxidant to form a two- phase reaction medium having an organic phase and an aqueous phase, the organic peracid oxidant capable of converting hydrogen halide to free halogen. The process leads to higher halogen utilization even when the cement contains significant amounts of water and without the use of an emulsifier.



WO 2020/124222 A1