

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 April 2025 (03.04.2025)



(10) International Publication Number
WO 2025/072105 A3

(51) International Patent Classification:

C07C 17/20 (2006.01) C07C 19/12 (2006.01)
C07C 17/23 (2006.01) C07C 21/18 (2006.01)
C07C 17/25 (2006.01) C09K 5/04 (2006.01)
C07C 19/08 (2006.01)

(21) International Application Number:

PCT/US2024/048060

(22) International Filing Date:

24 September 2024 (24.09.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/541,333 29 September 2023 (29.09.2023) US

(71) Applicant: **THE CHEMOURS COMPANY FC, LLC**
[US/US]; 1007 Market Street, Wilmington, Delaware
19801 (US).

(72) Inventors: **PENG, Sheng**; 549 Cabot Drive, Hockessin,
Delaware 19707 (US). **SIEVERT, Allen Capron**; 215
Rhett Lane, Elkton, Maryland 21921 (US).

(74) Agent: **SHAH-CREAMER, Bijal**; 1007 Market Street,
Patent Legal Group, Wilmington, Delaware 19801 (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, CV, 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, MG, MK, MN, MU, 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, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

25 September 2025 (25.09.2025)

(54) Title: PROCESSES TO MAKE 1,2-DIFLUOROETHYLENE FROM TETRACHLOROETHYLENE AND COMPOSITIONS THEREOF

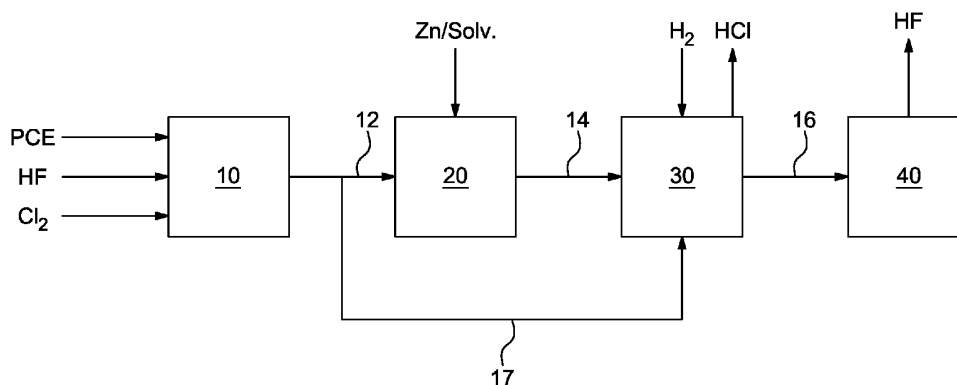


FIG. 1

(57) Abstract: An integrated process of making E- and Z-isomers of 1,2-difluoroethylene using tetrachloroethylene is provided. Compositions formed by and during the integrated process are also provided.



WO 2025/072105 A3