

(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 2025/072100 A3**

(51) International Patent Classification:

C07C 17/23 (2006.01) C07C 21/18 (2006.01)

(21) International Application Number:

PCT/US2024/048050

(22) International Filing Date:

24 September 2024 (24.09.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/541,445 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: **SUN, Xuehui**; 761 Meadowbank Road, Ken-

nett Square, Pennsylvania 19348 (US). **GRAY, Kerry**; 1305 West 13th Street, Wilmington, Delaware 19806 (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).

(54) Title: A PROCESS OF COPRODUCING E/Z-1,2-DIFLUOROETHYLENE AND COMPOSITIONS THEREOF

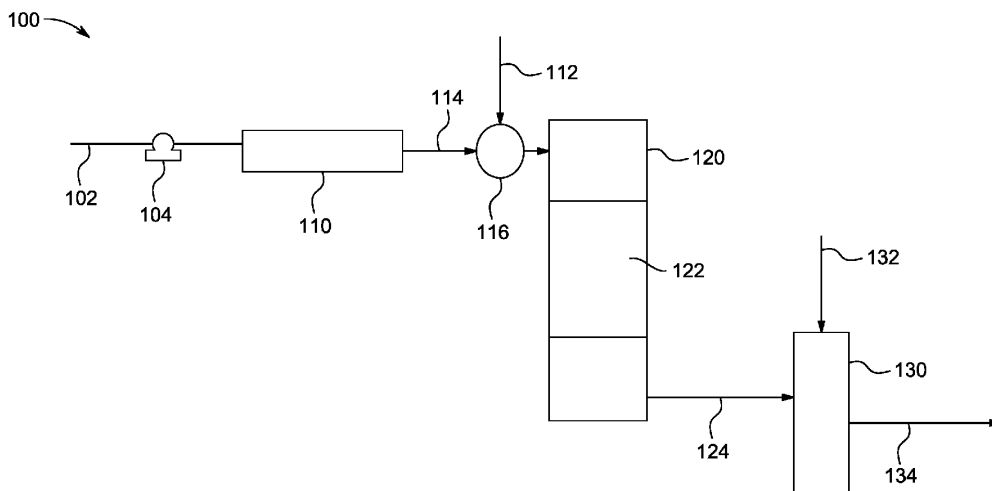


FIG. 1

(57) Abstract: A process for co-producing the E- and Z- isomers of 1,2-difluoroethylene (E/Z-HFO-1132), compositions thereof, and methods/system of using the compositions, are provided. The process may also involve recovering at least one of the E and/or Z isomer.

[Continued on next page]

**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:**  
18 September 2025 (18.09.2025)