

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 September 2025 (18.09.2025)



(10) International Publication Number
WO 2025/193251 A1

- (51) **International Patent Classification:**
C07C 17/25 (2006.01) *C07C 21/18* (2006.01)
- (21) **International Application Number:**
PCT/US2024/037163
- (22) **International Filing Date:**
09 July 2024 (09.07.2024)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/565,052 14 March 2024 (14.03.2024) US
- (71) **Applicant:** **THE CHEMOURS COMPANY FC, LLC**
[US/US]; 1007 Market Street, Wilmington, Delaware
19801 (US).
- (72) **Inventors:** **SUN, Xuehui**; 761 Meadowbank Road, Kennett Square, Pennsylvania 19348 (US). **LOUSENBERG, Robert D.**; 2103 Anson Road, Wilmington, Delaware 19810 (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).



WO 2025/193251 A1

Published:
— with international search report (Art. 21(3))

(54) **Title:** PROCESS OF PRODUCING FLUOROOLEFIN COMPOSITIONS BY CATALYTIC HYDRODECHLORINATION OF HYDROCHLOROFLUOROCARBONS AND COMPOSITIONS THEREOF

(57) **Abstract:** Provided herein are processes for producing fluoroolefins, and more particularly difluoroolefins such as 1,1-difluoropropene, particularly HFO-1252zc, or E/Z-1,2-difluoroethylene, by catalytic hydrodechlorination of hydrochlorofluorocarbons. Also provided herein are compositions produced by these processes.