

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
27 March 2025 (27.03.2025)



(10) International Publication Number
WO 2025/064698 A1

(51) International Patent Classification:

C08F 14/26 (2006.01) C08F 214/26 (2006.01)
C08F 214/28 (2006.01) C08F 214/18 (2006.01)

(21) International Application Number:

PCT/US2024/047523

(22) International Filing Date:

19 September 2024 (19.09.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/539,412 20 September 2023 (20.09.2023) US

(71) Applicant: **VALLISCOR, LLC** [US/US]; 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US).

(72) Inventors: **BARRETT, Colby**; c/o Valliscor, LLC, 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US).
CARTER, Rich G.; c/o Valliscor, LLC, 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US). **DE WILDE, Caleb**;

c/o Valliscor, LLC, 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US). **LINGAMPALLY, Rajinikanth**; c/o Valliscor, LLC, 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US). **STANDEN, Michael C.**; c/o Valliscor, LLC, 1110 N.E. Circle Blvd., Corvallis, Oregon 97330 (US).

(74) Agent: **SCHWARTZ, Johanna P.** et al.; Klarquist Sparkman, LLP, One World Trade Center, 121 SW Salmon St., Suite 1600, Portland, Oregon 97204 (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,

(54) Title: HALOGENATED PERFLUOROALIPHATIC COMPOUNDS AND METHODS OF MAKING AND USING THE SAME

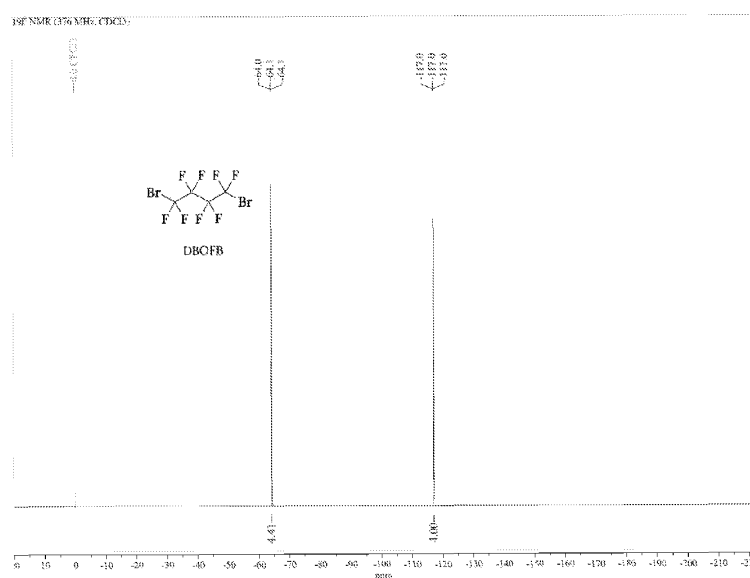


FIG. 1

(57) Abstract: Disclosed herein is a method for making halogenated perfluoroaliphatic compounds using a one-step procedure that can be adapted for use with various different linear fluorine-containing starting materials. The method is safe, reproducible, and adaptable. It utilizes readily accessible starting materials (e.g., a fluorine-containing compound and a halogen-based reagent, such as Br₂, IBr, ICl, BrCl, or Cl₂) to provide various halogenated perfluoroaliphatic compounds that can be further be converted to additional valuable products used in various industries.

[Continued on next page]

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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *of inventorship (Rule 4.17(iv))*

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))*