

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
11 May 2023 (11.05.2023)



(10) International Publication Number
WO 2023/081448 A1

(51) International Patent Classification:

B01D 71/02 (2006.01) **C01G 45/12** (2006.01)
B01D 71/82 (2006.01) **C01G 23/00** (2006.01)
B01D 67/00 (2006.01) **C01G 23/04** (2006.01)
B01D 15/36 (2006.01) **B01D 71/06** (2006.01)
C02F 1/42 (2023.01) **B01D 71/26** (2006.01)
C02F 1/44 (2023.01) **B01D 71/28** (2006.01)
C02F 101/10 (2006.01) **B01D 71/30** (2006.01)
C02F 1/00 (2023.01) **B01D 71/38** (2006.01)
C01D 15/00 (2006.01) **B01D 71/40** (2006.01)
C01G 45/02 (2006.01)

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:

— of inventorship (Rule 4.17(iv))

Published:

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

(21) International Application Number:

PCT/US2022/049102

(22) International Filing Date:

07 November 2022 (07.11.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/276,921 08 November 2021 (08.11.2021) US

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(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, 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, SD, SL, ST, SZ,

(54) Title: COMPOSITIONS AND METHODS FOR SELECTIVE EXTRACTION OF LITHIUM

(57) Abstract: Provided herein are ion-selective separation membranes including a polymer matrix and a metal compound dispersed within the polymer matrix. The metal compound includes $H_aLi_bX_cO_d$, where a is from 1 to 1.5, b is from 0 to 0.1, c is from 1 to 2, d is from 4 to 4.5, and X includes manganese or titanium.

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