

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 August 2023 (10.08.2023)



(10) International Publication Number
WO 2023/150774 A2

- (51) **International Patent Classification:**
F25B 15/10 (2006.01)
- (21) **International Application Number:**
PCT/US2023/062091
- (22) **International Filing Date:**
07 February 2023 (07.02.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/307,391 07 February 2022 (07.02.2022) US
- (71) **Applicant:** **ENERGETICO, INC.** [US/US]; PO Box 546212, Miami, Florida 33154 (US).
- (72) **Inventors:** **FORKOSH, Dan**; PO Box 546212, Miami, Florida 33154 (US). **SHER, Abe**; PO Box 546212, Miami, Florida 33154 (US).
- (74) **Agent:** **SHUTTLEWORTH MURRAY, Laurén** et al.; K&L Gates LLP, 210 Sixth Avenue, K&L Gates Center, Pittsburgh, Pennsylvania 15222-2613 (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, 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, 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:

- *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) **Title:** COMPRESSORLESS AIR CONDITIONING SYSTEM

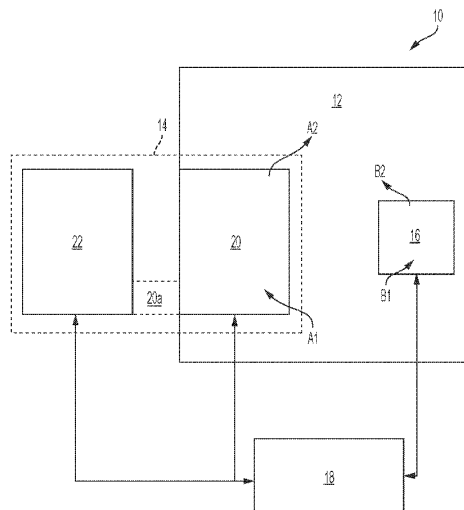


FIG. 1

(57) **Abstract:** According to various aspects, the present disclosure provides an air conditioning system. The air conditioning system can be a compressorless air conditioning system. According to at least one aspect, the air conditioning system can include a heat-to-mass extractor and a mass-to-heat converter. The heat-to-mass extractor can be configured to extract moisture from air in a conditioned space without increasing the temperature of the air. The heat-to-mass extractor can include a liquid desiccant, a collector, and a regenerator. The regenerator and the collector can be fluidically coupled via the liquid desiccant. The mass-to-heat converter can be configured to reduce a temperature of the air in the conditioned space via evaporation of water, and can be physically disconnected from the heat-to-mass extractor.

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