

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 May 2022 (05.05.2022)



(10) International Publication Number
WO 2022/094013 A1

(51) International Patent Classification:
A62C 3/16 (2006.01)

(21) International Application Number:
PCT/US2021/056948

(22) International Filing Date:
28 October 2021 (28.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/107,052 29 October 2020 (29.10.2020) US

(71) Applicant: THE CHEMOURS COMPANY FC, LLC
[US/US]; 1007 Market Street, Wilmington, DE 19801 (US).

(72) Inventor: ROBIN, Mark L.; 107 Saint Andrews Court,
Middletown, DE 19709 (US).

(74) Agent: SANCHEZ, Kathryn, M; 1007 Market Street,
Wilmington, DE 19801 (US).

ME, 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, 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, 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:

- 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))

(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, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,

(54) Title: THERMAL PROTECTION OF LITHIUM ION BATTERIES

(57) Abstract: A method for extinguishing a flame and terminating
thermal runaway in a device powered by a lithium ion battery. The
disclosure also provides a system for extinguishing fires generated
by lithium ion batteries exhibiting thermal runaway.

FIGURE 1a

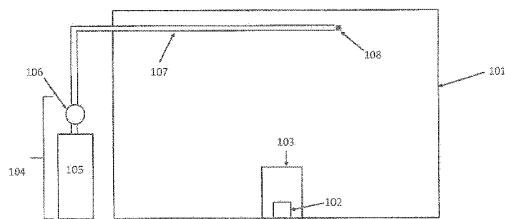
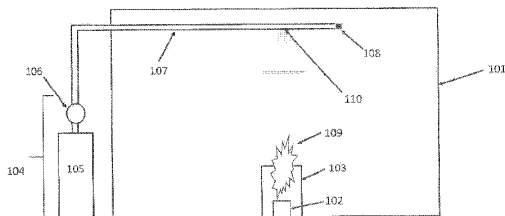


FIGURE 1b



WO 2022/094013 A1