

(12) International Application Status Report

Received at International Bureau: 25 February 2017 (25.02.2017)

Information valid as of: 15 February 2018 (15.02.2018)

Report generated on: 17 September 2019 (17.09.2019)

(10) Publication number:

WO2017/142990

(43) Publication date:

24 August 2017 (24.08.2017)

(26) Publication language:

English (EN)

(21) Application Number:

PCT/US2017/018053

(22) Filing Date:

16 February 2017 (16.02.2017)

(25) Filing language:

English (EN)

(31) Priority number(s):

62/296,237 (US)

(31) Priority date(s):

17 February 2016 (17.02.2016)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

H01M 10/36 (2010.01); **H01M 12/08** (2006.01)

(71) Applicant(s):

EOS ENERGY STORAGE, LLC [US/US]; 3920 Park Avenue Edison, NJ 08820 (US) *(for all designated states)*

(72) Inventor(s):

AMENDOLA, Steven; 17 Bayside Parkway Middletown, NJ 07748 (US)

(74) Agent(s):

WEBER, Andrew, N.; Honigman Miller Schwartz and Cohn LLP 350 East Michigan Avenue, Suite 300 Kalamazoo, MI 49007-3800 (US)

(54) Title (EN): HALOGEN-BASED ELECTROLYTE CONTAINING CARBON

(54) Title (FR): ÉLECTROLYTE À BASE D'HALOGÈNE CONTENANT DU CARBONE

(57) Abstract:

(EN): The present invention provides an electrolyte including a zinc halide salt, water, and carbon powder. The zinc halide salt is selected from ZnBr₂, ZnCl₂, ZnI₂, or any combination thereof. The electrolyte may include from about 25 wt% to about 50 wt% of the zinc halide salt. The electrolyte may include from about 25 wt% to about 50 wt% of the carbon powder. The zinc halide salt preferably includes ZnBr₂. The electrolyte may include 28 wt% to about 37 wt% of ZnBr₂. The electrolyte may be used in zinc-halide rechargeable electrochemical cells (e.g. storage batteries).

(FR): La présente invention concerne un électrolyte comprenant un sel d'halogénure de zinc, de l'eau et une poudre de carbone. Le sel d'halogénure de zinc est choisi parmi ZnBr₂, ZnCl₂, ZnI₂, ou toute combinaison de ces derniers. L'électrolyte peut comprendre d'environ 25 à environ 50 % en poids du sel d'halogénure de zinc. L'électrolyte peut comprendre d'environ 25 à environ 50 % en poids de la poudre de carbone. Le sel d'halogénure de zinc est de préférence ZnBr₂. L'électrolyte peut comprendre de 28 % en poids à environ 37 % en poids de ZnBr₂. L'électrolyte peut être utilisé dans des piles électrochimiques rechargeables zinc-halogénure (par exemple, des accumulateurs).

International search report:

Received at International Bureau: 17 April 2017 (17.04.2017) [EP]

International Report on Patentability (IPRP) Chapter II of the PCT:

Not available

(81) Designated States:

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, JP, KE, KG, KH, KN, KP, KR,

KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : 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

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM