

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
24 July 2008 (24.07.2008)

PCT

(10) International Publication Number
WO 2008/089205 A3(51) International Patent Classification:
H01M 8/04 (2006 01) H01M 4/02 (2006 01)

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

(21) International Application Number:
PCT/US2008/051111

(22) International Filing Date: 16 January 2008 (16.01.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/654,380 16 January 2007 (16.01.2007) US

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(81) Designated States (unless otherwise indicated for every kind of national protection available): AE, AG, AL, AM,

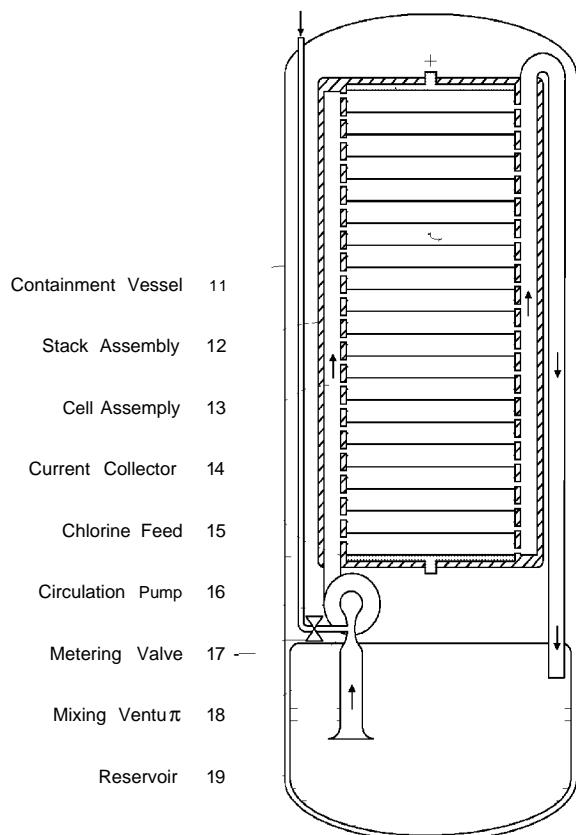
(84) Designated States (unless otherwise indicated for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

(88) Date of publication of the international search report:
9 October 2008

(54) Title: ELECTROCHEMICAL ENERGY CELL SYSTEM



(57) Abstract: A metal halogen electrochemical energy cell system that generates an electrical potential. One embodiment of the system includes at least one cell including at least one positive electrode and at least one negative electrode, at least one electrolyte, a mixing venturi that mixes the electrolyte with a halogen reactant, and a circulation pump that conveys the electrolyte mixed with the halogen reactant through the positive electrode and across the metal electrode. Preferably, the positive electrode comprises porous carbonaceous material, the negative electrode comprises zinc, the metal comprises zinc, the halogen comprises chlorine, the electrolyte comprises an aqueous zinc chloride electrolyte, and the halogen reactant comprises a chlorine reactant. Also, variations of the system and a method of operation for the system.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US 08/51111

A CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - H01M 8/04, 4/02 (2008.04)
 USPC - 429/15, 29

According to International Patent Classification (IPC) or to both national classification and IPC

B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
429/15, 29

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PubWEST(USPT,PGPB,EPAB,JPAB), DialogPRO(Engineering), Google Scholar
 Search Terms electrochemical cell, porous, carbonaceous, zinc, halogen, chloride, manifold, pump, electrode/cathode/anode

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 4,518,663 A (Kodali et al) 21 May 1985 (21 05 1985), entire document especially col 7, In 10-15, col 7, In 25-45, col 4, In 3-45, col 4, In 3-65, col 13, In 10-35, col 4, In 3-65, col 3, In 65 to col 4, In 5, col 4, In 15-40, Fig 2-4	1-8, 11-28, 34-35, 38-45, 48-65 and 71-72
Y		9-10, 29-33, 36-37, 46-47, 66-70 and 73-74
Y	US 4,162,351 A (Putt et al) 24 Jul 1979 (24 07 1979), entire document especially Abstract and col 4, In 49-64	9, 29-33, 46 and 66-70
Y	US 4,115,529 A (Behling) 19 Sep 1978 (19 09 1978), entire document especially Example 1	10, 33, 47 and 70
Y	US 3,644,190 A (Weist et al) 22 Feb 1972 (22 02 1972), entire document especially col 3, In 15-35	36-37 and 73-74

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Date of the actual completion of the international search

30 June 2008 (30 06 2008)

Date of mailing of the international search report

08 JUL 2008

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