

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 December 2004 (16.12.2004)

PCT

(10) International Publication Number
WO 2004/109826 A3

(51) International Patent Classification⁷: **H01M 4/58**, 6/14

94549 (US). **NIMON, Yevgeniy, S.** [US/US]; 10 Cross Bridge Place, Danville, CA 94526 (US). **VISCO, Steven, J.** [US/US]; 546 Arlington Avenue, Berkeley, CA 94707 (US).

(21) International Application Number:
PCT/US2004/018173

(22) International Filing Date: 3 June 2004 (03.06.2004)

(74) Agent: **AUSTIN, James, E.**; Beyer Weaver & Thomas LLP, P.O. Box 778, Berkeley, CA 94704-0778 (US).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/455,259 4 June 2003 (04.06.2003) US

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **POLY-PLUS BATTERY COMPANY** [US/US]; 2431 Fifth Street, Suite B, Berkeley, CA 94710 (US).

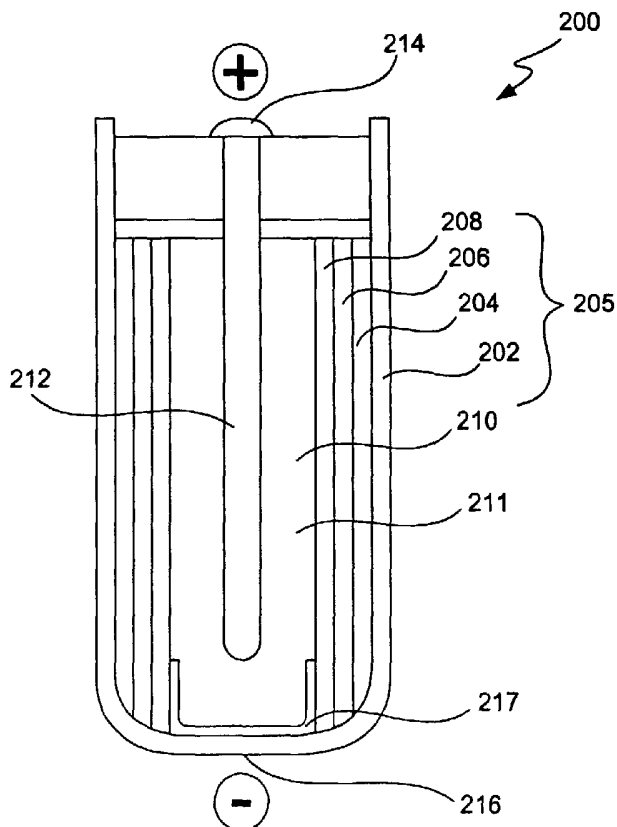
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **DE JONGHE, Lutgard** [US/US]; 910 Acalanes Road, Lafayette, CA

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH,

[Continued on next page]

(54) Title: ALLEVIATION OF VOLTAGE DELAY IN LITHIUM-LIQUID DEPOLARIZER/ELECTROLYTE SOLVENT BATTERY CELLS



(57) Abstract: Voltage delay in an active metal anode/liquid cathode battery cell can be significantly reduced or completely alleviated by coating the active metal anode (e.g., Li) surface with a thin layer of an inorganic compound with Li-ion conductivity using chemical treatment of Li surface. Particularly, preferred examples of such compounds include lithium phosphate, lithium metaphosphate, and/or their mixtures or solid solutions with lithium sulphate. These compounds can be formed on the Li surface by treatment with diluted solutions of the following individual acids: H₃PO₄, HPO₃ and H₂SO₄, their acidic salts, or their binary or ternary mixtures in a dry organic solvent compatible with Li, for instance in 1,2-DME; by various deposition techniques. Such chemical protection of the Li or other active metal electrode significantly reduces the voltage delay due to protected anode's improved stability toward the electrolyte.



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, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:

24 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/018173

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01M4/58 H01M6/14

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)

IPC 7 H01M

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 practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 918 364 A (GREATBATCH W LTD) 26 May 1999 (1999-05-26) * see {0005}, '0008!, '0009!, '0027!, claims * the whole document -----	1-75
Y	EP 0 917 224 A (GREATBATCH W LTD) 19 May 1999 (1999-05-19) * see '0006! - '0008!, claims * the whole document -----	1-75
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Date of the actual completion of the international search

23 November 2004

Date of mailing of the international search report

29/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Stellmach, J

INTERNATIONAL SEARCH REPORT

International Application No

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