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[Continued on next page]

(54) Title: BATTERY LIFE ESTIMATION

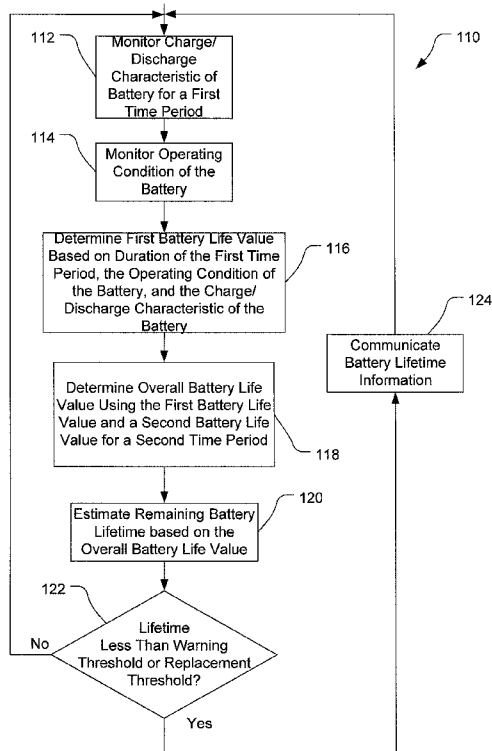


FIG. 4

(57) Abstract: A method of estimating battery lifetime includes monitoring a charge characteristic of a battery during a first time period, monitoring an operating condition of the battery, determining a first battery life value for the first time period based on the operating condition of the battery, the charge characteristic, and a duration of the first time period, determining an overall battery life value using the first battery life value and a second battery life value for a second time period, and estimating a remaining battery lifetime for the battery based on the overall battery life value.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

G01R 31/36(2006.01)i, G01R 27/02(2006.01)i

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)

G01R 31/36; G06F 11/30; H02J 7/00; H02J 7/16; G06F 11/00; G01N 27/416

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: Battery life time, Charge characteristic, Discharge rate, Float voltage, Depth of discharge

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0037145 A1 (SUZUKI TATSUHIKO et al.) 05 February 2009 See abstract, paragraph[0020] -paragraph[0061]; figures 1-4 and claims 1,10	1-21
A	US 2005-0110466 A1 (HIDEKI SHOJI) 26 May 2005 See abstract, paragraph[0058] -paragraph[0072]; figures 1-2 and claim 1	1-21
A	US 2008-0125987 A1 (SUZUKI TATSUHIKO et al.) 29 May 2008 See abstract, paragraph[0052] -paragraph[0068]; figures 1-4 and claims 3,14	1-21
A	US 6924622 B1 (ADNAN H. ANBUKY et al.) 02 August 2005 See abstract, column, line 28 - column 9, line13; figures11-12 and claims 1, 29	1-21



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

03 NOVEMBER 2010 (03.11.2010)

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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