

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2023/124733 A1

(43) 国际公布日
2023 年 7 月 6 日 (06.07.2023)

(51) 国际专利分类号:
H01M 10/44 (2006.01)

(21) 国际申请号: PCT/CN2022/135668

(22) 国际申请日: 2022 年 11 月 30 日 (30.11.2022)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202111681358.1 2021 年 12 月 30 日 (30.12.2021) CN

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(54) Title: BATTERY MANAGEMENT METHOD AND APPARATUS, AND COMPUTER-READABLE STORAGE MEDIUM

(54) 发明名称: 电池的管理方法及管理装置及计算机可读存储介质



S101 Obtain a current high-voltage inflection point charge quantity corresponding to a high-voltage inflection point of a charging curve of each battery cell at a current moment
S102 Obtain a current historical cumulative balance charge quantity of each battery cell at the current moment
S103 Obtain a current equivalent self-discharge quantity of each battery cell according to the current high-voltage inflection point charge quantity of the battery cell and the current historical cumulative balance charge quantity of the battery cell
S104 Obtain an equivalent self-discharge quantity at a previous moment of each battery cell
S105 Subtract the equivalent self-discharge quantity at the previous moment of each battery cell from the current equivalent self-discharge quantity of the battery cell to obtain a target equivalent self-discharge quantity of the battery cell in the time interval between the current moment and the previous moment
S106 Determine a maximum target equivalent self-discharge quantity and a minimum target equivalent self-discharge quantity in the target equivalent self-discharge quantities of all the battery cells
S107 Divide the maximum target equivalent self-discharge quantity by the time interval to obtain a maximum equivalent self-discharge rate, and divide the minimum target equivalent self-discharge quantity by the time interval to obtain a minimum equivalent self-discharge rate
S108 When it is determined that the difference between the maximum equivalent self-discharge rate and the minimum equivalent self-discharge rate is greater than a preset threshold, manage a target battery cell corresponding to the maximum target equivalent self-discharge quantity

图 1

(57) Abstract: A battery management method, comprising: obtaining a current high-voltage inflection point charge quantity of each battery cell; obtaining a current historical cumulative balance charge quantity of each battery cell; calculating a current equivalent self-discharge quantity of each battery cell; obtaining an equivalent self-discharge quantity at a previous moment of each battery cell; calculating a target equivalent self-discharge quantity of each battery cell; determining a maximum target equivalent self-discharge quantity and a minimum target equivalent self-discharge quantity; calculating a maximum equivalent self-discharge rate and a minimum equivalent self-discharge rate; and when the difference between the maximum equivalent self-discharge rate and the minimum equivalent self-discharge rate is greater than a preset threshold, managing a target battery cell corresponding to the maximum target equivalent self-discharge quantity. The present application also provides a battery management apparatus, a vehicle, and a computer-readable storage medium.

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SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

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TD, TG)。

本国际公布:

— 包括国际检索报告 (条约第21条(3))。

(57) 摘要: 一种电池的管理方法, 包括获取每一单体电池的当前高电压拐点电量值; 获取每一单体电池的当前历史累计均衡电量值; 计算得到每一单体电池的当前等效自放电量值; 获取每一单体电池的上一时刻等效自放电量值; 计算得到每一单体电池的目标等效自放电量值; 确定最大目标等效自放电量值和最小目标等效自放电量值; 计算得到最大等效自放电率及最小等效自放电率; 在最大等效自放电率与最小等效自放电率的差值大于预设阈值时, 对最大目标等效自放电量值对应的目标单体电池进行管理。本申请还提供一种电池的管理装置、车辆及计算机可读存储介质。