

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0360090 A1

Nov. 10, 2022 (43) **Pub. Date:**

(54) **DETERMINATION METHOD FOR BATTERY** STATE, ELECTRONIC APPARATUS, AND STORAGE MEDIUM

(71) Applicant: Beijing Xiaomi Mobile Software Co., Ltd., Beijing (CN)

(72) Inventor: Yaoyi TSENG, Beijing (CN)

(73) Assignee: Beijing Xiaomi Mobile Software Co.,

Ltd., Beijing (CN)

Appl. No.: 17/564,663

(22)Filed: Dec. 29, 2021

(30)Foreign Application Priority Data

May 6, 2021 (CN) 202110491031.1

Publication Classification

(51) Int. Cl. H02J 7/00

(2006.01)(2006.01)G01R 31/367

G01R 31/392 (2006.01) (52) U.S. Cl.

CPC H02J 7/005 (2020.01); H02J 7/0048 (2020.01); H02J 7/007182 (2020.01); G01R 31/367 (2019.01); G01R 31/392 (2019.01)

(57)ABSTRACT

A determination method for a battery state, the method includes: obtaining an environment temperature sequence of an environment where a battery is located in a preset time period, the environment temperature sequence including: a plurality of environment temperatures corresponding oneto-one to a plurality of time nodes; determining, according to the time nodes corresponding to the plurality of environment temperatures of the environment temperature sequence, accumulated duration that the environment temperatures greater or equal to at least one environment temperature threshold; determining a state of health of the battery according to the accumulated duration and a reference duration threshold; and determining, under the condition that the battery is in an unhealthy state, a regulation strategy for a charging mode, so as to charge the battery based on the adjusted charging mode.

an environment temperature sequence of an environment where a battery is located in a preset time period is obtained

S110

according to the time nodes corresponding to the plurality of environment temperatures of the environment temperature sequence, accumulated duration that the environment temperatures greater or equal to at least one environment temperature threshold is determined

S120

a state of health of the battery is determined according to the accumulated duration and a reference duration threshold

S130

under the condition that the battery is in an unhealthy state, a regulation strategy for a charging mode is determined, so as to charge the battery based on the adjusted charging mode

S140