

Title (en)

METHOD AND CONTROL DEVICE FOR DETERMINING AN ENERGY QUANTITY IN A BATTERY OR BATTERY CELL

Title (de)

VERFAHREN UND STEUERGERÄT ZUM BESTIMMEN EINER ENERGIEMENGE IN EINER BATTERIE ODER BATTERIEZELLE

Title (fr)

PROCÉDÉ ET DISPOSITIF DE COMMANDE POUR DÉTERMINATION D'UNE QUANTITÉ D'ÉNERGIE DANS UNE BATTERIE OU UN ÉLÉMENT DE BATTERIE

Publication

**EP 4341708 A1 20240327 (DE)**

Application

**EP 22712575 A 20220310**

Priority

- DE 102021205163 A 20210520
- EP 2022056242 W 20220310

Abstract (en)

[origin: WO2022242926A1] The invention relates to a method for determining an energy quantity (20) in a battery or battery cell, wherein: an initial charge state (10) is received; a final charge state (11) is received; a load profile (12) between the initial charge state (10) and the final charge state (11) is received; intermediate charge states (14) between the initial charge state (10) and the final charge state (11) and associated weighting factors (15) are determined; parameters (16) of an equivalent circuit model (30) of the battery or the battery cell are estimated for each of the determined intermediate charge states (14); and, proceeding from the load profile (12), the weighting factors (15) and the parameters (16), an energy quantity (20) of the battery or battery cell between the initial charge state (10) and the final charge state (11) is determined and is provided as an energy quantity signal (21). The invention further relates to a control device (1) for determining an energy quantity (20) in a battery or battery cell.

IPC 8 full level

**G01R 31/367** (2019.01)

CPC (source: EP US)

**G01R 31/367** (2019.01 - EP US); **G01R 31/3835** (2019.01 - US); **G01R 31/3648** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102021205163 A1 20221124**; CN 117355758 A 20240105; EP 4341708 A1 20240327; US 2024230767 A1 20240711; WO 2022242926 A1 20221124

DOCDB simple family (application)

**DE 102021205163 A 20210520**; CN 202280036393 A 20220310; EP 2022056242 W 20220310; EP 22712575 A 20220310; US 202218560315 A 20220310