

Title (en)

METHOD FOR DETERMINING A STATE VALUE OF A TRACTION BATTERY

Title (de)

VERFAHREN ZUR BESTIMMUNG EINES ZUSTANDSWERTES EINER TRAKTIONSBATTERIE

Title (fr)

PROCÉDÉ POUR DÉTERMINER UNE VALEUR D'ÉTAT D'UNE BATTERIE DE TRACTION

Publication

EP 4061668 A1 20220928 (DE)

Application

EP 20801209 A 20201103

Priority

- DE 102019131283 A 20191120
- EP 2020080761 W 20201103

Abstract (en)

[origin: WO2021099102A1] The invention relates to a method for determining a state value of a traction battery of an electric vehicle, said value characterizing the aging state of the traction battery, preferably an SoH value of the traction battery. The traction battery is charged or discharged by means of a test load, and a respective value pair of an output voltage and a load current of the traction battery is detected at at least one point in time. An ohmic inner resistance of the traction battery is ascertained on the basis of the detected value pair of the output voltage and the load current, and the state value of the traction battery is ascertained on the basis of the ascertained ohmic inner resistance. At least one normalization variable which characterizes the traction battery is ascertained, and a normalized inner resistance, with respect to a reference value of the normalization variable, is ascertained on the basis of the ascertained ohmic inner resistance and the at least one normalization variable, wherein the state value of the traction battery is ascertained on the basis of the normalized inner resistance. The invention additionally relates to a diagnosis device for determining a state value of a traction battery of an electric vehicle, said diagnosis device having an analysis unit which can be coupled directly or indirectly to the traction battery and which is designed to carry out the method.

IPC 8 full level

B60L 58/16 (2019.01); **G01R 31/378** (2019.01); **H02J 7/00** (2006.01)

CPC (source: EP IL KR US)

B60L 3/0046 (2013.01 - IL KR); **B60L 50/60** (2019.02 - US); **B60L 58/16** (2019.02 - EP IL KR); **G01R 31/367** (2019.01 - US); **G01R 31/374** (2019.01 - US); **G01R 31/378** (2019.01 - IL); **G01R 31/3842** (2019.01 - IL KR US); **G01R 31/389** (2019.01 - EP IL KR US); **G01R 31/392** (2019.01 - EP IL KR US); **B60Y 2200/91** (2013.01 - IL KR); **G01R 31/378** (2019.01 - EP); **G01R 31/3842** (2019.01 - EP); **Y02E 60/10** (2013.01 - EP IL); **Y02T 10/70** (2013.01 - EP IL KR)

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

DOCDB simple family (publication)

WO 2021099102 A1 20210527; AU 2020385550 A1 20220616; AU 2020385550 B2 20231123; BR 112022009736 A2 20220809; CA 3162747 A1 20210527; CA 3162747 C 20230411; CN 114786991 A 20220722; EP 4061668 A1 20220928; IL 293176 A 20220701; IL 293176 B1 20230601; IL 293176 B2 20231001; JP 2023506706 A 20230220; JP 7422227 B2 20240125; KR 20220100684 A 20220715; NZ 788908 A 20240322; US 11892517 B2 20240206; US 2023152385 A1 20230518; ZA 202205456 B 20230329

DOCDB simple family (application)

EP 2020080761 W 20201103; AU 2020385550 A 20201103; BR 112022009736 A 20201103; CA 3162747 A 20201103; CN 202080080735 A 20201103; EP 20801209 A 20201103; IL 29317622 A 20220519; JP 2022529777 A 20201103; KR 20227020317 A 20201103; NZ 78890820 A 20201103; US 202017778334 A 20201103; ZA 202205456 A 20220517