

Title (en)

DETERMINING THE STATE OF CHARGE OF AN ALL-VANADIUM REDOX FLOW BATTERY USING UV/VIS MEASUREMENT

Title (de)

BESTIMMUNG DES LADUNGSZUSTANDES EINER ALL-VANADIUM REDOX-FLOW BATTERIE MITTELS UV/VIS-MESSUNG

Title (fr)

DÉTERMINATION DE L'ÉTAT DE CHARGE D'UNE BATTERIE REDOX VANADIUM À L'AIDE D'UNE MESURE UV/VIS

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EP 3516722 A1 20190731 (DE)

Application

EP 17765412 A 20170908

Priority

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Abstract (en)

[origin: WO2018050547A1] The invention relates to a method for determining the state of charge of a vanadium redox flow cell, in which the concentrations of V4+ and V5+ in the positive electrolyte are determined indirectly by mixing the positive and the negative electrolyte together in specific proportions in order to reduce the V5+ contained in the positive electrolyte. CT complexes of V4+/V5+, the concentration of which cannot be determined directly due to strong UV/Vis absorption, are thus avoided. The method therefore makes it possible to determine the concentrations of the negative and the positive electrolyte by means of UV/Vis absorptions, which allows a simple monitoring of the state of charge of a vanadium redox flow battery. The invention further relates to a method for operating a vanadium redox flow battery and to devices suitable for implementing said method.

IPC 8 full level

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Citation (search report)

See references of WO 2018050547A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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