Title (en)

METHOD FOR OPERATING AN ELECTROLYZER, CONNECTION CIRCUIT, RECTIFIER, AND ELECTROLYSIS SYSTEM FOR CARRYING OUT THE METHOD

Title (de)

VERFAHREN ZUM BETRIEB EINES ELEKTROLYSEURS, VERBINDUNGSSCHALTUNG, GLEICHRICHTER UND ELEKTROLYSEANLAGE ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN ÉLECTROLYSEUR, CIRCUIT DE CONNEXION, REDRESSEUR ET SYSTÈME D'ÉLECTROLYSE PERMETTANT DE METTRE EN OUVRE LEDIT PROCÉDÉ

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Application

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Abstract (en)

[origin: WO2021228770A1] The invention relates to a method for operating an electrolyzer (40) which is designed to generate hydrogen from water by means of an electrolysis reaction and which is supplied by an AC voltage grid (AC - grid) (20) via an actively controlled rectifier (30), having the steps of: - operating the electrolyzer (40) with a largely ohmic behavior in a normal operating mode using an input voltage UEl above a no-load voltage ULL, - operating the electrolyzer (40) with a largely capacitive behavior in a standby operating mode using an input voltage UEl below the no-load voltage ULL, and - changing over from the standby operating mode to the normal operating mode during a first changeover duration Δt1, wherein the first changeover duration Δt1 is reduced in that the input voltage UEl at the input (41) of the electrolyzer (40) is kept above a first voltage threshold UTH,1 differing from 0 V during the standby operating mode. The invention additionally relates to a connection circuit (1), to an actively controlled rectifier (30), and to an electrolysis system (60) for carrying out the method.

IPC 8 full level

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