

Title (en)

WELDED ELECTROCHEMICAL REACTOR AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

VERSCHWEIßTER ELEKTROCHEMISCHER REAKTOR UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

RÉACTEUR ÉLECTROCHIMIQUE SOUDÉ ET SON PROCÉDÉ DE FABRICATION

Publication

EP 4371169 A1 20240522 (DE)

Application

EP 22754315 A 20220713

Priority

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- EP 2022069641 W 20220713

Abstract (en)

[origin: WO2023285553A1] An electrochemical reactor (1) is described and shown, in particular a fuel cell, electrolyser, redox-flow battery, accumulator or battery, with a cell stack (Z) comprising a plurality of cells (2) stacked in a stacking direction (R) and separated from one another by means of at least one bipolar plate (3, 4), wherein the cells (2) each have two electrodes (5, 6) and a separator (10), which is arranged between the two electrodes (5, 6) and provides an electrolyte (11), wherein the electrodes (5, 6) and the separator (10) of the cells (2) are in each case accommodated in an interior space (13) of at least one cell frame (12), and wherein the at least one bipolar plate (3, 4) and the at least one cell frame (12) each comprise at least one thermoplastic material. In order to make it possible for production to be carried out more easily and with lower costs, it is provided that the at least one cell frame (12) of at least one cell (2) is thermally welded to at least two bipolar plates (3, 4) adjacent to the at least one cell frame (12) on both sides in the stacking direction (R), with a liquid-tight seal respectively running around at least substantially perpendicularly to the stacking direction (R).

IPC 8 full level

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Citation (search report)

See references of WO 2023285553A1

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