

Title (en)
ELECTROCHEMICAL CELL ARRANGEMENT HAVING A POCKET-SHAPED STRUCTURE

Title (de)
ELEKTROCHEMISCHE ZELLENANORDNUNG IN TASCHENFÖRMIGER BAUWEISE

Title (fr)
ENSEMBLE CELLULES ELECTROCHIMIQUES A STRUCTURE EN FORME DE POCHES

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Application
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Abstract (en)
[origin: WO2005064731A2] The invention relates to an electrochemical stack of cells, preferably a stack of cells for membrane fuel or membrane electrolysis-cells, formed from several parallel or serially connected individual cells. All cathode sides of the individual cells and all anode sides of the individual cells are disposed in pockets which are formed by a meandering, folded electrolyte layer and are closed on the upper and lower front surfaces thereof. The individual cells are made of, in a manner known per se, electrodes comprising downstream and/or upstream conductors, in addition to, optionally, backing and current distributors on both sides of the electrolyte layer. The individual downstream and/or upstream conductors are electrically connected thus producing a serial or parallel connection. Then, the anode fluid and/or the cathode fluid is supplied to or evacuated from all open pockets on the anode and/or cathode side of the anode and/or cathode chamber without the need for individual distribution and sealing, normally in a parallel plate stack, of successive cells. Instead, the area between the anode and cathode chamber is sealed by the folded electrolyte layer and the two front-sided sealing elements.

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