Title (en)

STRUCTURE FOR FUEL CELL ACTIVE ELECTRODE LAYER WITH SOLID POLYMER ELECTROLYTE

Title (de)

STRUKTUR FÜR AKTIVE ELEKTRODENSCHICHT VON FESTPOLYMERELEKTROLYTBRENNSTOFFZELLEN

Title (fr)

STRUCTURE POUR COUCHE ACTIVE D'ELECTRODES DE PILES A COMBUSTIBLE A ELECTROLYTE SOLIDE POLYMERE

Publication

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Application

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Priority

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Abstract (en)

[origin: FR2788630A1] The invention concerns a fuel cell electrode with solid polymer electrolyte comprising in its active layer at least two distinct domains: one is in particular the site of electronic transfer electrochemical reactions, the other serves only for ionic conduction. Said novel electrode structure for fuel cell with solid electrolyte polymer is designed the current density levels at the electrodes by increasing the thickness of the efficient part of their active layer. To achieve this, the ionic conduction in the active layer thickness is reinforced by adding, in specific content, impregnated fibres of the ionic conductor. Moreover, conditions are produced such that the surfaces comprising the platinum sites are coated with a film, uniform if possible, whereof the thickness should not exceed a predetermined value. Finally, it is optionally advantageous to place in the active layer micro-tubes which will promote the transfer of gas phases.

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IPC 8 full level

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