

Title (en)

DEEP METAL DEPOSITION IN A POROUS MATRIX BY HIGH POWER IMPULSE MAGNETRON SPUTTERING (HIPIMS), POROUS SUBSTRATES IMPREGNATED WITH METAL CATALYST AND USES THEREOF

Title (de)

TIEFE METALLABSCHIEDUNG IN EINER PORÖSEN MATRIX DURCH HOCHLEISTUNGSIMPULSMAGNETRONSPUTTERING, MIT METALLKATALYSATOR IMPRÄGNIERTE PORÖSE SUBSTRATE UND VERWENDUNGEN DAVON

Title (fr)

DEPOT METALLIQUE PROFOND DANS UNE MATRICE POREUSE PAR PULVERISATION MAGNETRON PULSEE HAUTE PUISSANCE HIPIMS, SUBSTRATS POREUX IMPREGNES DE CATALYSEUR METALLIQUE ET LEURS UTILISATIONS

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Application

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Abstract (en)

[origin: WO2015114168A1] The invention concerns porous substrates impregnated with metal catalyst, in particular intended for use as electrodes in a fuel cell such as a proton exchange membrane cell, and method for preparing same. In particular, the present invention concerns a method for impregnating a porous substrate with metal catalyst by high power impulse magnetron sputtering of one or more metal targets, the target(s) and the substrate being placed in an enclosure containing a gaseous plasma medium, the metal of the target(s) being chosen from the transition metals and the alloys of same, said method comprising the following steps: a) applying a pulsed voltage U_t to the target, b) polarising the porous substrate by applying a pulsed voltage U_s with a delay Δt relative to the start of step (a).

IPC 8 full level

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Citation (search report)

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