

Title (en)  
SELF-HEALING MEMBRANE FOR A FUEL CELL

Title (de)  
SELBSTTHEILENDE MEMBRAN FÜR EINE BRENNSTOFFZELLE

Title (fr)  
MEMBRANE AUTOGENERATRICE D'UNE PILE A COMBUSTIBLE

Publication  
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Application  
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Abstract (en)  
[origin: WO2004082813A2] The invention relates to a self-healing membrane, especially for using in PEM fuel cells. Said membrane comprises at least one porous material which is not ion-conductive and at least one polymer, ion-conductive electrolyte which has a higher melting point or decomposition point than the porous material which is not ion-conductive. If a hole, crack or the like forms in the membrane, the porous material which is not ion-conductive melts due to the temperature rise occurring at the leaking point, before the polymer, ion-conductive electrolyte melts or decomposes and seals the membrane at this point. The inventive membrane heals occurring defects itself in this way, and is thus self-healing.

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