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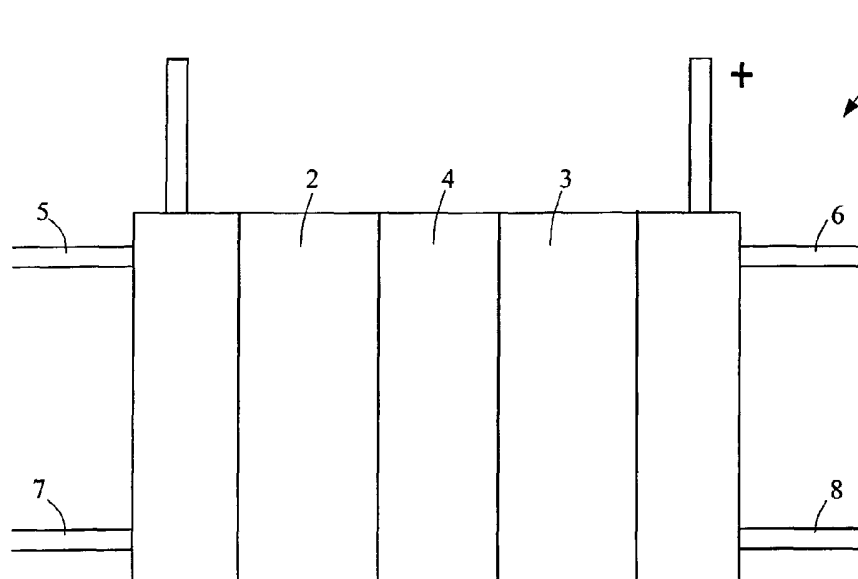
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(54) Title: IMPROVED ANODE CATALYST COMPOSITIONS FOR A VOLTAGE REVERSAL TOLERANT FUEL CELL



(57) Abstract: In a solid polymer fuel cell series, various circumstances can result in a fuel cell (1) being driven into voltage reversal. For instance, cell voltage reversal can occur if that cell receives an inadequate supply of fuel. In order to pass current, reactions other than fuel oxidation may take place at the fuel cell anode, including water electrolysis and oxidation of anode (2) components. The latter may result in significant degradation of the anode, particularly if the anode employs a carbon black supported catalyst. Such fuel cells can be made substantially more tolerant to cell reversal by using certain anodes employing both a higher catalyst loading or coverage on a corrosion-resistant support and by incorporating, in addition to the typical electrocatalyst for promoting fuel oxidation, certain unsupported catalyst compositions to promote the water electrolysis reaction.



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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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