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(54) **Title**: PROTON EXCHANGE MEMBRANE FOR FUEL CELL APPLICATIONS

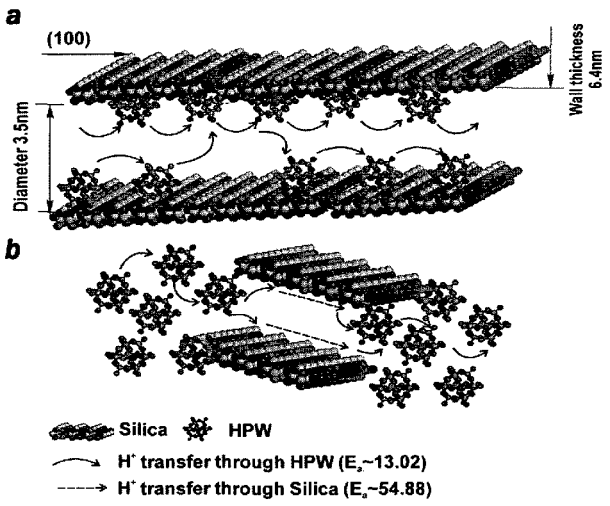


FIG. 8

(57) **Abstract**: The present invention refers to an inorganic proton conducting electrolyte consisting of a mesoporous crystalline metal oxide matrix and a heteropolyacid bound within the mesoporous matrix. The present invention also refers to a fuel cell including such an electrolyte and methods for manufacturing such inorganic electrolytes.

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