



(51) International Patent Classification:

H01M 8/00 (2006.01) *H01M 6/00* (2006.01)
H01M 4/90 (2006.01) *H01M 10/00* (2006.01)

(21) International Application Number:

PCT/SG2009/000160

(22) International Filing Date:

5 May 2009 (05.05.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/050,368 5 May 2008 (05.05.2008) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available):

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available):

ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

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

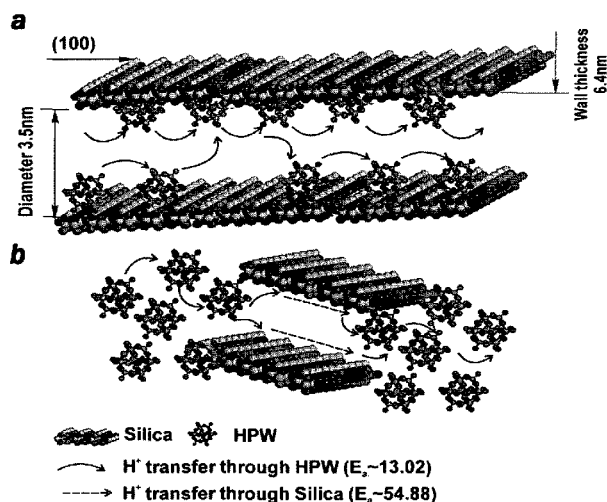


FIG. 8

(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.