

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number
WO 2005/106992 A1

- (51) International Patent Classification⁷: **H01M 2/14**, B01D 69/12, H01M 8/00
- (21) International Application Number: PCT/CA2005/000663
- (22) International Filing Date: 3 May 2005 (03.05.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/567,437 4 May 2004 (04.05.2004) US
11/047,558 2 February 2005 (02.02.2005) US
- (71) Applicant (for all designated States except US): **ANGSTROM POWER INCORPORATED** [CA/CA]; 106 - 980 West 1st Street, North Vancouver, British Columbia V7P 3N4 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MCLEAN, Gerard, Francis** [CA/CA]; 3895 Marine Drive, West Vancouver, British Columbia V7V 1N3 (CA). **NGO, Tran** [CA/CA]; 905 - 3755 Bartlett Court, Burnaby, British Columbia V3J 7G7 (CA). **DJILALI, Ned** [CA/CA]; 2110 Wenman Drive, Victoria, British Columbia V8N 2S2 (CA). **STUKAS, Anna** [CA/CA]; 1536 Vining Street, Victoria, British Columbia V8R 1R1 (CA). **SCHROOTEN, Jeremy** [US/CA]; 8653 Henderson Street, Mission, British Columbia V2V 7P9 (CA).
- (74) Agents: **MANNING, Gavin N.** et al.; Oyen Wiggs Green & Mutala LLP, 480 - The Station, 601 West Cordova Street, Vancouver, British Columbia V6B 1G1 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, HU, IE, IS, IT, LT, LU, MC, NL, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MEMBRANES AND ELECTROCHEMICAL CELLS INCORPORATING SUCH MEMBRANES

PRIOR ART



(57) Abstract: One aspect of the invention provides an ion-conducting membrane comprising an ion-conducting region and a non-ion-conducting region. The ion-conducting region is formed by a plurality of ion-conducting passageways that extend through the membrane. The passageways are filled with ion-conducting material and may be surrounded by non-ion conducting material. The membrane may comprise a substrate of non-ion-conducting material that is penetrated by openings, each opening providing a corresponding one of the passageways.



WO 2005/106992 A1