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(21) International Application Number: PCT/US99/20404 (22) International Filing Date: 7 September 1999 (07.09.99) (30) Priority Data: 09/156,135 17 September 1998 (17.09.98) US (71) Applicant (for all designated States except US): REVEO, INC. [US/US]; 85 Executive Boulevard, Elmsford, NY 10523 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): YAO, Wayne [-/US]; 169 B Howard Drive, Bergenfield, NJ 07621 (US). TSAI, Tsepin [-/US]; 616 Woodland Hills Road, White Plains, NY 10603 (US). CHANG, Yuen-Ming [-/US]; 10 Hunter Lane, Elmsford, NY 10523 (US). CHEN, Muguo [-/US]; 179 Underhill Avenue, West Harrison, NY 10604 (US). (74) Agents: HESLIN, Robert, E. et al.; Heslin & Rothenberg, P.C., 5 Columbia Circle, Albany, NY 12203 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>
(54) Title: POLYMER-BASED HYDROXIDE CONDUCTING MEMBRANES (57) Abstract A polymer-based electrolyte composition having excellent film-forming properties, flexibility, mechanical strength and high hydroxide conductivity is disclosed. The composition comprises an organic polymer having an alkyl quaternary ammonium salt structure; a nitrogen-containing, heterocyclic quaternary ammonium salt; and a metal hydroxide salt. In a preferred embodiment, the composition is cast in the form of a film that is suitable for use as an ion-conducting or other specialty membrane in a power source, such as for example an alkaline battery or fuel cell, that relies on hydroxide anion transport for its operation.		