

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 May 2006 (11.05.2006)

PCT

(10) International Publication Number
WO 2006/050335 A2

(51) International Patent Classification:
H01M 8/06 (2006.01)

(21) International Application Number:
PCT/US2005/039409

(22) International Filing Date: 31 October 2005 (31.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/623,894 31 October 2004 (31.10.2004) US
60/717,641 17 September 2005 (17.09.2005) US

(71) Applicant (for all designated States except US): **IDAT-ECH, LLC** [US/US]; 63065 NE 18th Street, Bend, Oregon 97701 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **EDLUND, David, J.** [US/US]; 1698 Davenport, Bend, Oregon 97701 (US).
STUDEBAKER, Todd, R. [US/US]; 23102 Lariat Lane, Bend, Oregon 97701 (US).

(74) Agent: **D'ASCENZO, David, S.**; Kolisch Hartwell, P.C., 520 SW Yamhill Street, Suite 200, Portland, OR 97204 (US).

(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, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, 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.

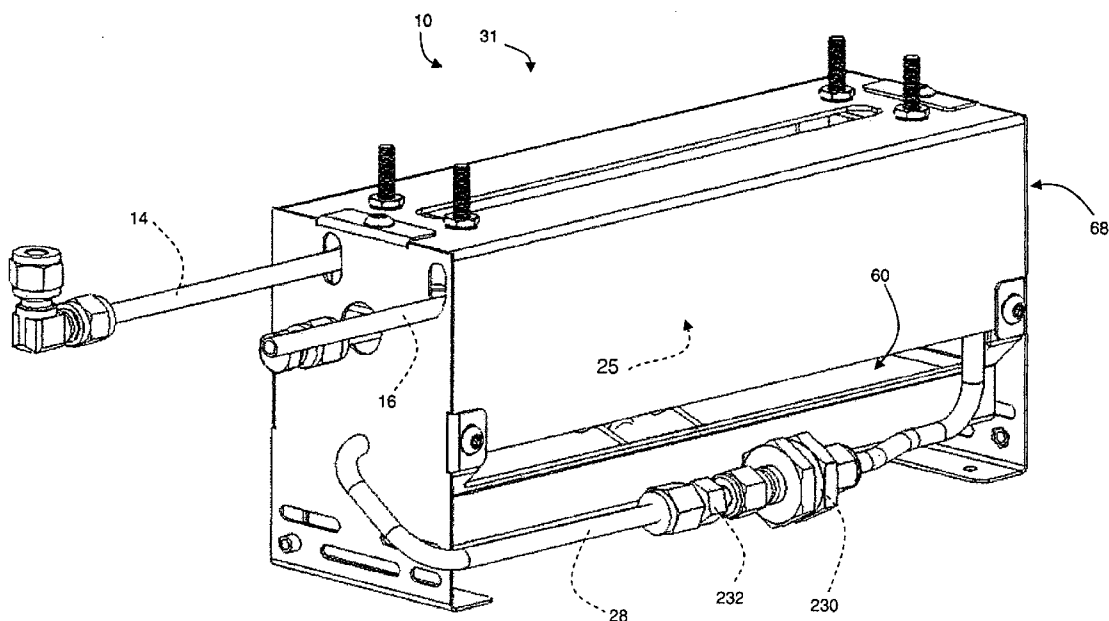
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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:

— without international search report and to be republished upon receipt of that report

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: HYDROGEN GENERATION AND ENERGY PRODUCTION ASSEMBLIES



(57) Abstract: Hydrogen generation assemblies, components thereof, and fuel cell systems containing the same. In some embodiments, the hydrogen generation assembly includes a heater assembly having separate startup and primary burner assemblies that utilize different fuels. In some embodiments, the heating assembly is adapted to utilize a volume of liquid fuel to startup the hydrogen generation assembly, while in other embodiments a gaseous fuel is used. In some embodiments, the fuel used during start up includes at least 25 vol% water. In some embodiments, the fuel cell system has a rated power output in the range of 100-1000 watts. In some embodiments, the hydrogen generation assembly is a portable system.

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