

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 April 2009 (02.04.2009)

PCT

(10) International Publication Number
WO 2009/042745 A1

(51) International Patent Classification:
C01B 3/02 (2006.01)

(74) Agent: **TAHMASSEBI, Sam, K.**; Biotechnology Law Group, C/o Portfolio Ip, P.o.box 52050, Minneapolis, MN 55402 (US).

(21) International Application Number:
PCT/US2008/077618

(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.

(22) International Filing Date:
25 September 2008 (25.09.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/975,760 27 September 2007 (27.09.2007) US
11/874,499 18 October 2007 (18.10.2007) US

(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, 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).

(71) Applicant (*for all designated States except US*): **SIDKAR TECHNOLOGIES, INC.** [US/US]; 10820 Ashby Ave., Los Angeles, CA 90064 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **ANEJA, Karan** [US/US]; 10820 Ashby Ave., Los Angeles, CA 90064 (US). **SAHA, Siddhartha** [IN/US]; 10820 Ashby Ave., Los Angeles, CA 90064 (US).

Published:
— with international search report

(54) Title: METHODS AND DEVICE FOR PRODUCING HYDROGEN FROM BIOMASS

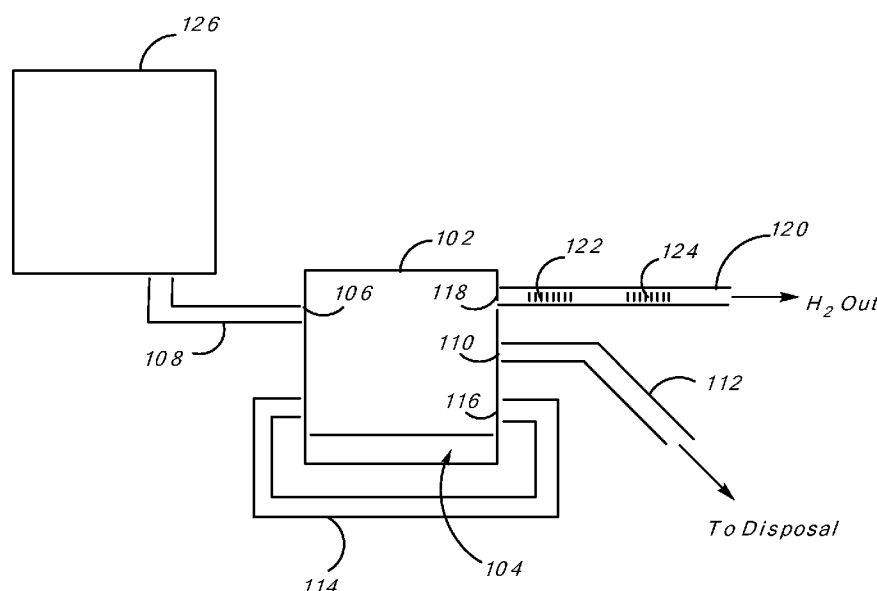


FIGURE 1

(57) Abstract: Disclosed herein are methods of producing molecular hydrogen, where the methods comprise contacting a solution comprising urea with a urease to produce ammonia, and contacting the ammonia with a first catalyst to produce a first gaseous mixture comprising molecular hydrogen.

WO 2009/042745 A1