

(43) International Publication Date
25 September 2014 (25.09.2014)

(51) International Patent Classification:

C01B 3/38 (2006.01) H01M 8/06 (2006.01)
C01B 3/40 (2006.01)

(21) International Application Number:

PCT/US2014/022027

(22) International Filing Date:

7 March 2014 (07.03.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/837,544 15 March 2013 (15.03.2013) US

(71) Applicant: LG FUEL CELL SYSTEMS, INC. [US/US];
6065 Strip Ave. NW, North Canton, Ohio 44720 (US).(72) Inventor: BUDGE, John R.; 2565 Edgewood Rd., Beach-
wood, Ohio 44122 (US).(74) Agents: WILFORD, Jeffrey D. et al.; Shumaker & Sief-
fert, P.A., 1625 Radio Drive, Suite 300, Woodbury, Min-
nesota 55125 (US).(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, BN, BR, BW, BY,
BZ, CA, CH, CL, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, 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, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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

(54) Title: CATALYSTS FOR HYDROCARBON REFORMING

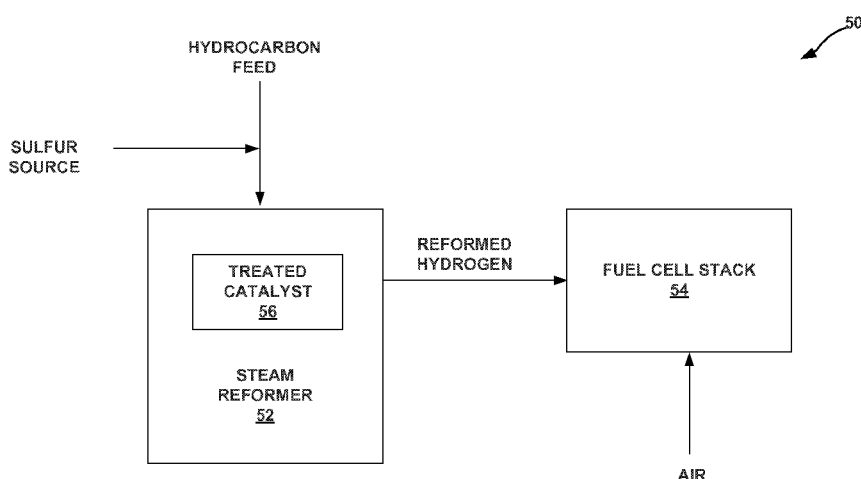


FIG. 1

(57) Abstract: In some examples, a method for treating a reforming catalyst, the method comprising heating a catalyst metal used for reforming hydrocarbon in a reducing gas mixture environment. The reducing gas mixture comprises hydrogen and at least one sulfur-containing compound. The at least one sulfur-containing compound includes one or more of hydrogen sulfide, carbonyl sulfide, carbonyl disulfide and organic sulfur-containing compounds such as thiophenes, thiophanes, sulfides (RSH), disulfides (RS₂R'), trisulfides (RS₃R') and mercaptans (RSR').



WO 2014/150057 A1