



(51) International Patent Classification:

C02F 1/46 (2006.01) C02F 1/50 (2006.01)
C02F 1/76 (2006.01)

(21) International Application Number:

PCT/CA2015/051030

(22) International Filing Date:

9 October 2015 (09.10.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/062,369 10 October 2014 (10.10.2014) US

(71) Applicant: XOGEN TECHNOLOGIES INC. [CA/CA];
20 Robb Boulevard, Orangeville, Ontario L9W 3L2 (CA).(72) Inventors: BEJAN, Dorin; 3348 Roma Avenue, Burling-
ton, Ontario L7M 0N7 (CA). GAGNON, Craig; 787 As-
leton Boulevard, Milton, Ontario L9T 8K3 (CA).(74) Agents: NAUMAN, David A. et al.; BORDEN LADNER
GERVAIS LLP, 100 Queen Street, Suite 1300, Ottawa,
Ontario K1P 1J9 (CA).

(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, 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, ST, 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, LI, 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).

Published:

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

(54) Title: SYSTEM AND METHOD FOR OXIDATION OF AMMONIA

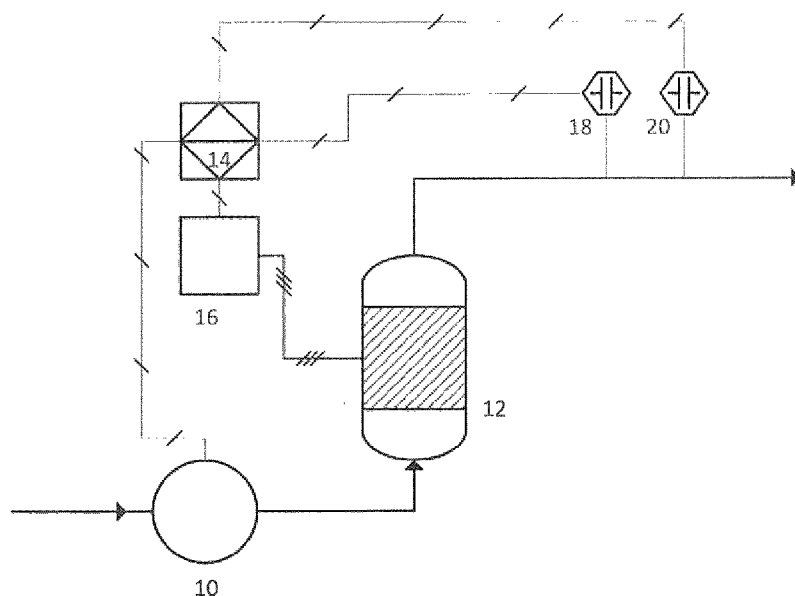


Fig. 1

(57) Abstract: The present disclosure relates generally to oxidation of ammonia using electrochemistry. Methods and systems may include at least one sensor to measure the concentration of ammonia in the effluent and/or the concentration of chlorine gas in the effluent. Methods and systems may also include at least one controller in communication with the sensor and/or the anode to reduce the current density of the anode generating the chlorine, and/or to change the flow rate of the ammonia containing water entering the reactor.