

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 December 2015 (30.12.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/196263 A1

(51) International Patent Classification:

C25B 15/02 (2006.01) C25B 15/04 (2006.01)
C25B 15/08 (2006.01) C25B 9/00 (2006.01)

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.

(21) International Application Number:

PCT/BG2014/000030

(22) International Filing Date:

15 August 2014 (15.08.2014)

(25) Filing Language:

English

(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).

(26) Publication Language:

English

(30) Priority Data:

111782 27 June 2014 (27.06.2014) BG

(71) Applicant: HYDROGENICA CORPORATION LTD.
[BG/BG]; 12 Boyanska reka Str., 1616 Sofia (BG).

(72) Inventors: BOZHILOV, Angel, Ivanov; 12 Boyanska reka Str., 1616 Sofia (BG). TABAKOV, Boyan, Mirchev; 43 Tundzha Str., floor 4, ap.5, 1463 Sofia (BG).

(74) Agent: GEORGIEVA, Lilia, Tsvetkova; P.O. Box 21, 1797 Sofia (BG).

(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,

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

Published:

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

(54) Title: OXYHYDROGEN GENERATOR AND METHOD FOR PRODUCING OXYHYDROGEN GAS

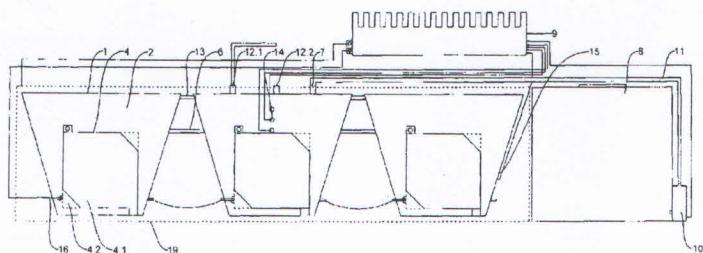


Fig. 1

WO 2015/196263 A1

(57) Abstract: An oxyhydrogen generator comprises an electrolyser consisting of a plurality of electrolytic cells (1) covered by a hermetically sealed housing. Each cell (1) comprises a chamber (2), forming an electrolytic bath where a plurality of alternating anodes (4.2) and cathodes (4.1) are housed, a metal screen (5) being mounted between the electrodes (4). Electrodes (4) are connected in series to a DC source, and the electrolytic baths of chambers (2) are interconnected via spillways (6). In the upper end of the housing, an inlet (7) is formed for charging cells (1) with electrolyte, connected to reservoir (8) for electrolyte and at least one outlet (12.1) for the discharge of the resultant oxyhydrogen gas from cells (1). The oxyhydrogen generator has a microprocessor module (9) for the control and management of the parameters of the electrolysing process.