

Search history

Search PN=(WO/2016/126940) (Results 1)

1:

Search [SP]: 1. an electrolytic cartridge comprising: an electrode connectable to an electrical supply an ion selective membrane disposed on a side of the electrode so as to define a space adjacent to at least a portion of the electrode a permeable insert covering the ion selective membrane on a side opposite the space and a bonding plate disposed on the permeable insert on a side opposite the side facing the ion selective membrane, the space in communication with a fresh water supply at an inlet of the space and in communication with an outlet of the space, the space sealed such that, when submerged in a brine solution comprising ions, the only path for the ions of the brine solution to enter the space is through the ion selective membrane. 2. the electrolytic cartridge of claim 1, further comprising a plurality of ion selective membranes, a plurality of permeable inserts, and a plurality of bonding plates, arranged such that, when submerged in a brine solution comprising ions, the only path for the ions of the brine solution to enter the first space is through the ion selective membranes. 3. the electrolytic cartridge of any of claims 1 and 2, further comprising a gasket disposed between the electrode and each ion selective membrane. 4. the electrolytic cartridge of claim 3, wherein each gasket is constructed of an elastomer. 5. the electrolytic cartridge of claim 4, wherein the elastomer is silicone. 6. the electrolytic cartridge of any one of claims 3 through 5, wherein each gasket comprises a side at least partially coated with an adhesive. 7. the electrolytic cartridge of claim 6, wherein the adhesive is capable of adhering a surface to a wet article. 8. the electrolytic cartridge of claim 6, wherein the adhesive is an acrylic adhesive. 9. the electrolytic cartridge of any one of claims 1 through 8, wherein the permeable insert or plurality thereof comprises an open-cell foamed polymer. 10. the electrolytic cartridge of claim 9, wherein the open-cell foamed polymer comprises polyurethane. 11. the electrolytic cartridge of any one of claims 10 and 11, wherein the open-cell foamed polymer is coated with a coating substance. 12. the electrolytic cartridge of claim 11, wherein the coating substance is polyvinyl chloride. 13. the electrolytic cartridge of any one of claims 1 through 12, wherein the electrode is constructed of a metal alloy coated with a substance comprising oxides of at least one of tantalum, ruthenium, and iridium. 14. the electrolytic cartridge of any one of claims 1 through 13, wherein the space is capable of containing fresh water at a pressure of at least 2 psi for at least 10 minutes without leaking. 15. the electrolytic cartridge of any one of claims 1 - 14, wherein the ion selective membrane is an anion selective membrane. 16. the electrolytic cartridge of any one of claims 1 - 14, wherein the ion selective membrane is a cation selective membrane. 17. an electrolyzing system for electrolyzing a brine solution of water and ions of an alkali salt to produce acidic electrolyzed water and alkaline electrolyzed water, the system comprising: a basin comprising an internal chamber for containing the brine solution comprising cations and anions and defining a brine bath a first electrolytic cartridge arranged in the internal chamber of the basin with the first electrolytic cartridge immersed in the brine bath, the first electrolytic cartridge comprising a first electrode that is connected to an electrical supply that positively charges the first electrode, and an anion selective membrane disposed on a side of the first electrode so as to define a first space adjacent to at least a portion of the first electrode and into which anions from the brine solution can enter through the anion selective membrane, a permeable insert covering the anion selective membrane on a side opposite the first space, and a bonding plate disposed on the permeable insert on a side opposite the side facing the anion selective membrane, the first space in communication with a fresh water supply at an inlet of the first space and in communication with an outlet of the first space, the first space sealed from the brine bath such that the only path for the anions of the brine solution to enter the first space is through the anion selective membrane and a second electrolytic cartridge arranged in the internal chamber of the basin with the second electrolytic cartridge immersed in the brine bath, the second electrolytic cartridge comprising a second electrode that is connected to an electrical supply that negatively charges the second electrode, and a cation selective membrane disposed on a side of the second electrode so as to define a second space adjacent to at least a portion of the second electrode and into which cations from the brine solution can enter through the cation selective membrane, a permeable insert covering the cation selective membrane on a side opposite the second space, and a bonding plate disposed on the permeable insert on a side opposite the side facing the cation selective membrane, the second space in communication with a fresh water supply at an inlet of the second space and in communication with an outlet of the second space, the second space sealed from the brine bath such that the only path for the cations of the brine solution to enter the second space is through the cation selective membrane. 18. the electrolyzing system of claim 17, wherein the first electrolytic cartridge further comprises a plurality of anion selective membranes, a plurality of permeable inserts, and a plurality of bonding plates, arranged such that the only path for the anions of the brine solution to enter the first space is through the anion selective membranes. 19. a method of producing acidic electrolyzed water and alkaline electrolyzed water from a brine solution comprising cations and anions, the method comprising: immersing a first electrolytic cartridge in the brine solution, the first electrolytic cartridge comprising a first electrode, the first electrode connected to an electrical supply that positively charges the first electrode, the first electrolytic cartridge further comprising an anion selective membrane, the anion selective membrane supported relative to the first electrode so as to define a first space adjacent to at least a portion of the first electrode, the first space sealed from the brine solution such that the only path for the anions of the brine solution to enter the first space is through the anion selective membrane immersing a second electrolytic cartridge in the brine solution, the second electrolytic cartridge comprising a second electrode, the second electrode connected to an electrical supply that negatively charges the second electrode, the second electrolytic cartridge further comprising a cation selective membrane, the cation selective membrane supported relative to the second electrode so as to define a second space adjacent to at least a portion of the second electrode, the second space sealed from the brine solution such that the only path for the cations of the brine solution to enter the second space is through the cation selective membrane immersing a cathode cartridge in the brine solution, the cathode cartridge comprising a third electrode, the third electrode connected to an electrical supply that negatively charges the third electrode, the cathode cartridge further comprising a cation selective membrane, the cation selective membrane supported relative to the third electrode so as to define a third space adjacent to at least a portion of the third electrode, the third space sealed from the brine solution such that the only path for the cations of the brine solution to enter the third space is through the cation selective membrane flowing fresh water through the first, second, and third spaces while the first, second, and third electrodes are charged, thereby creating a first product, a second product, and a third product flowing from each respective space and flowing at least a portion of the third product through the first space while at least the first and second electrodes are charged, thereby adjusting the pH of the first product. 20. a method comprising: producing aqueous alkaline solution via an electrolytic cartridge submerged in a brine solution and having a negatively charged electrode feeding at least a portion of the aqueous alkaline solution produced by the electrolytic cartridge having the negatively charged electrode to an electrolytic cartridge submerged in the brine solution and having a positively charged electrode and producing aqueous hypochlorous acid solution having a pH of from about 4 to about 6 via the electrolytic cartridge submerged in the brine solution and having the positively charged electrode. (Results 18)

Search pd<20150204 (Results 1000000)

3:

Search 2 and 3 (Results 15)

4:

Search insert or foam or polyurethane (Results 1000000)

5:

Search 4 and 5 (Results 5)

6:

Title: ELECTROLYZING SYSTEM

Abstract: An electrolyzing system for electrolyzing a brine solution of water and an alkali salt to produce acidic electrolyzed water and alkaline electrolyzed water is provided. The system includes an internal chamber for receiving the brine solution and two electrolyzer cells immersed in a brine bath. Each electrolyzer cell includes an electrode, at least one ion permeable membrane supported relative to the electrode to define a space communicating between a fresh water supply and a chemical outlet into which brine enters only through the membrane. One of the electrodes is coupled to a positive charging electrical supply and the other to a negative charging electrical supply.

Classifications:

International (IPC 8-9): C02F C02F1/46 C02F1/461 C02F1/467 C25B C25B1/00 C25B1/04 C25B1/16 C25B1/46 C25B13/00 C25B9/00 C25B9/10 C25B9/18 (Advanced/Invention); C02F1/461 C02F1/467 C25B9/18 (Advanced/Non-invention); C25B1/00 C25B1/16 C25B1/46 (Core/Invention); C02F C25B (Subclass/Invention)

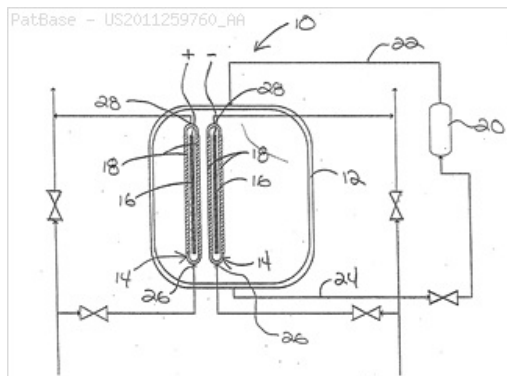
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European: C02F1/467B M02F1/461B6B M02F1/461B6D M02F201/461B12 M02F201/461B4 M02F201/461B6D

US: 1/1 204/252 204/253 204/257 204/257S 205/345 205/746 205/748

JP F-Term: 4D061 4D061/DA04 4D061/DA10 4D061/DB07 4D061/DB08 4D061/EA02 4D061/EB01 4D061/EB13 4D061/EB16 4D061/EB17 4D061/EB20 4D061/EB33 4K021 4K021/AB01 4K021/AB13 4K021/BA03 4K021/DB06 4K021/DB31 4K021/DB36

JP F-Index: C02F1/46/A C02F1/461/A C25B1/46 C25B9/00/C C25B9/00/E

**Family:**

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WO11133835 A1	20111027	WO2011US33528	20110422
ZA201208339 A	20130731	ZA20120008339	20121106

Priority:

US20100326869P 20100422 EP20110772747 20110422 US20110092278 20110422
 WO2011US33528 20110422 US20140225532 20140326

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL
IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
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SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Gasket for electrolytic cell

Abstract: An improved multi-layer electrode gasket comprising an outboard layer of a material having a combination of a Type A Shore Scale Durometer hardness (ASTM Specification D-2240-75) ranging from about 40 to about 70 and a Compression Set (ASTM Specification D-395-69-Method A) of zero plus to about 40 percent with an inboard barrier layer of a material which is corrosion-resistant, noncontaminating and stable upon contact with the electrolyte in conjunction with the electrode chamber in which it is used.

Classifications:

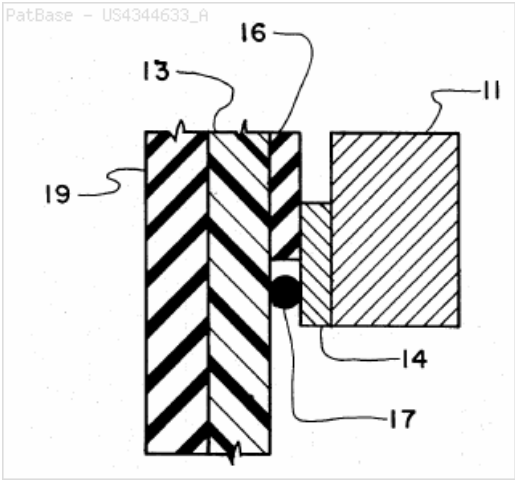
International (IPC 8-9): C25B9/20 F16J15/00 (Advanced/Invention); C25B9/18 F16J15/00 (Core/Invention)

International (IPC 1-7): C25B9/00 F16J15/10

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European: C25B9/20 F16J15/00B

US: 204/279 277/228 277/654



Family:

Publication number	Publication date	Application number	Application date
US4344633 A	19820817	US19810266447	19810522

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US19810266447 19810522

Probable Assignee: DIAMOND SHAMROCK CORP

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AU2002335645 AA	20031212	AU20020335645	20020816
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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: APPARATUS AND METHOD FOR GENERATING A STABILIZED SANITIZING SOLUTION

Abstract: The present invention provides a method utilizing Cylindrical Electrolysis cells for the generation of Hypochlorous Acid (HOCL) solutions having excellent sanitizing properties and a shelf life of 24 months when bottled. The electrolysis cells consist of at least two cylindrical electrodes with at least one cylindrical ion-selective membrane arranged co-axially between them. A cation-selective or anion-selective membrane separates the cathode chamber from the anode chamber allowing only selective ions to move from one chamber to another. A three section end piece facilitate the assembly of the cylindrical electrolysis cell and enables easy inspection and replacement of the ion-selective membranes. The method allows production of different concentrations of Hypochlorous Acid solutions with a pH value ranging from 3.5 to 7.5 and an Redox Oxidation Potential between +700 and +1200 mV when an aqueous sodium chloride or potassium chloride solution is treated.

Classifications:

International (IPC 8-9): C02F1/461 C25B1/00 C25B1/16 C25B1/26 C25B1/46 C25B11/02 C25B11/10 C25B13/02 C25B15/08 C25B9/00 C25B9/08 C25B9/10 C25B9/18 (Advanced/Invention)

CPC: C25B9/08 C02F2201/003 C02F2201/46115 C02F2209/04

C02F2201/4618 C02F2209/06 C02F2001/46157 C25B1/26

C02F1/46109 C02F1/4618 C02F1/4674 C25B9/10 C25B1/16

C25B11/02 C25B15/08 Y02P20/129 Y02P20/20 C02F2001/46171

US: 204/257 204/260 205/334 205/347 205/510 205/556

JP F-Term: 4K011 4K011/AA21 4K011/AA33 4K011/AA34

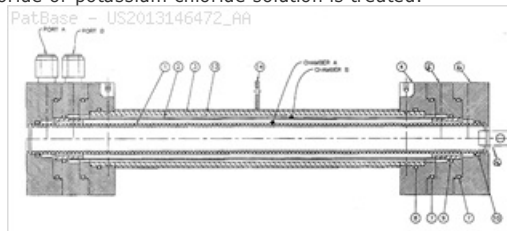
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4K021/AB07 4K021/BA03 4K021/BC01 4K021/BC03 4K021/BC07

4K021/CA01 4K021/CA05 4K021/CA08 4K021/CA09 4K021/CA10 4K021/CA15 4K021/DB01 4K021/DB06 4K021/DB07

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JP F-Index: C25B1/16 C25B1/26/C C25B11/02/302 C25B11/10/C C25B13/02/301 C25B15/08/302 C25B9/00/E

**Family:**

Publication number	Publication date	Application number	Application date
CA2859367 AA	20140613	CA20122859367	20121213
EP2791393 A2	20141022	EP20120820993	20121213
JP2015500402 T2	20150105	JP20140547417T	20121213
US2013146472 AA	20130613	US20120718677	20121218
US2013146473 AA	20130613	US20110324714	20111213
US2013146474 AA	20130613	US20120718721	20121218
US2015176142 AA	20150625	US20140577258	20141219
WO13090560 A2	20130620	WO2012US69490	20121213
WO13090560 A3	20131219	WO2012US69490	20121213
WO14113178 A1	20140724	WO2013US76220	20131218
WO16100876 A1	20160623	WO2015US66794	20151218

Priority:

US20110324714 20111213 WO2012US69490 20121213 US20120718677 20121218
 US20120718721 20121218 US20140577258 20141219

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Title: SYMMETRIC ELECTROCHEMICAL CELL

Abstract: A three-chamber eletrochemical cell comprises a central chamber, two lateral chambers, and a central part for conveying a fluid solution into and out from the central chamber, the central part being symmetric with respect to a mid-plane of the cell.

Classifications:

International (IPC 8-9): C02F1/461 C02F1/467 C25B1/26 C25B9/06 C25B9/08 C25B9/10 (Advanced/Invention);

H01M8/10 (Advanced/Non-invention)

CPC: Y10T29/49115 C02F1/4674 C02F2001/46185 C02F2001/4619

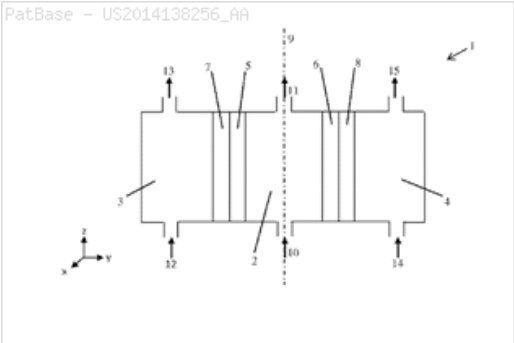
C02F2201/4611 C02F2201/46115 C25B9/10 C25B9/08 C25B1/26

H01M2008/1095

European: C02F1/467B2 C25B9/10 M02F1/461B6B M02F1/461B6D

M02F201/461B2 M02F201/461B4

US: 1/1 204/232 204/252 205/556 29/623.5



Family:

Publication number	Publication date	Application number	Application date
CA2830748 AA	20130919	CA20122830748	20120319
CA2830748 AA	20120927	CA20122830748	20120319
EP2688845 A2	20140129	EP20120714810	20120319
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FR2973044 B1	20150116	FR20110052381	20110322
US2014138256 AA	20140522	US20120006295	20120319
US9187836 BB	20151117	US20120006295	20120319
WO12127164 A2	20120927	WO2012FR50571	20120319
WO12127164 A3	20130411	WO2012FR50571	20120319

Priority:

FR20110052381 20110322 WO2012FR50571 20120319

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