

Search history

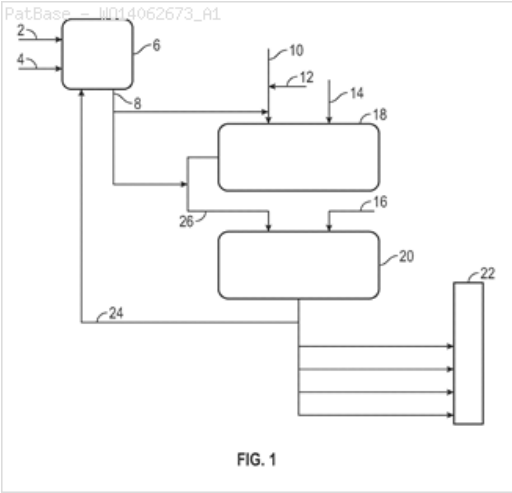
Search 1: FT=(biocide) (Results 25322)
Search 2: halogen (Results 660519)
Search 3: ammonia (Results 563575)
Search 4: electrolytic cell (Results 34253)
Search 5: trichloramine (Results 123)
Search 6: 1 and 2 (Results 5299)
Search 7: 6 and 3 (Results 1491)
Search 8: 7 and 4 (Results 19)
Search 9: 8 and 5 (Results 2)
Search 10: 9 and pd<20151006 (Results 1)
Search 11: 8 and pd<20151006 (Results 17)

Title: DISINFECTING WATER USED IN A FRACTURING OPERATION

Abstract: A process for disinfecting a treatment fluid is disclosed, including admixing an aqueous solution of a mixed disinfectant generated via electrolysis of a quaternary ammonium halide salt solution with a treatment fluid.

Classifications:

International (IPC 8-9): C02F1/467 C02F1/50 (Advanced/Invention)
CPC: C02F1/4674 C02F2201/007 C02F2201/008 C02F2209/04 C02F2209/05 C02F2209/29



Family:

Publication number	Publication date	Application number	Application date
WO14062673 A1	20140424	WO2013US65037	20131015

Priority:

US20120714005P 20121015

Probable Assignee: MI LLC

Assignee(s): (std): MI LLC

Assignee(s): M I LLC

Inventor(s): (std): BINGHAM RICHARD ; KAPILA MUKESH ; STEWART COLIN

Agent(s): TRAN ANDREA ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Abstract: A process for producing stable, high purity ferrate (VI) employing beta-ferric oxide (beta-Fe₂O₃) and as the iron source. The process results in the efficient and effective productions of ferrate with high yields and small amounts of waste production.

International (IPC 8-9): C01G49/00 C25B1/14

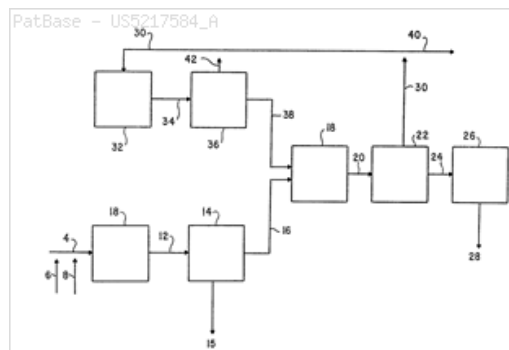
C25B1/18 (Advanced/Invention);
C01G49/00 C25B1/00 (Core/Invention)

International (IPC 1-7): C01G49/02 C25B1/00 C25B1/14 C25B1/18

CPC: C01G49/0081 C01P2006/60 C25B1/14 C25B1/18

European: C01G49/00C20 C25B1/14 C25B1/18 M01P6/60

US: 204/86 204/96 205/548 423/594.2 423/633



Publication number	Publication date	Application number	Application date
AU199189199 A1	19920520	AU19910089199	19911011
US5217584 A	19930608	US19900596771	19901012
WO9207114 A1	19920430	WO1991US07520	19911011

US19900596771 19901012 WO1991US07520 19911011

Probable Assignee: ARCH CHEMICALS INC

Assignee(s): (std): OLIN CORP

Assignee(s): ARCH CHEMICALS INC ; OLIN A CORP OF CT CORP

Inventor(s): (std): DEININGER J PAUL

Inventor(s): J PAUL DEININGER ; OLIN CORP ; DEININGER J

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LK LU MC
MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG

Title: ELECTROLYTIC APPARATUS AND METHODS FOR PURIFICATION OF AQUEOUS SOLUTIONS

Abstract: Electropurification of contaminated aqueous media, such as ground water and wastewater from industrial manufacturing facilities like paper mills, food processing plants and textile mills, is readily purified, decolorized and sterilized by improved, more economic open configuration electrolysis cell designs, which may be divided or undivided, allowing connection as monopolar or bipolar cells. When coupled with very narrow capillary gap electrodes more economic operation particular when treating solutions of relatively low conductivity is assured. The novel cell design is also useful in the electrosynthesis of chemicals, such as hypochlorite bleaches and other oxygenated species.

Classifications:

International (IPC 8-9): C02F1/42 C02F1/46 C02F1/461 C02F1/467

C02F1/58 C25B9/00 (Advanced/Invention);

C02F1/42 C02F1/46 C02F1/461 C02F1/467 C02F1/58

C25B9/00 (Advanced/Non-invention);

C02F1/46 C02F1/461 C02F1/58 C25B9/00 (Core/Invention);

C02F1/42 (Core/Non-invention)

International (IPC 1-7): C02F1/46 C02F1/461 C02F1/58 C25B1/00

C25B11/02 C25B9/00 C25F7/00

CPC: C02F1/42 C02F1/46104 C02F1/46109 C02F1/4672 C02F1/4674

C02F1/4676 C02F2001/46128 C02F2001/46133 C02F2001/46157

C02F2101/163 C02F2103/30 C02F2201/4611 C02F2201/46115

C02F2201/46155 C02F2303/04 C02F2305/026 C02F2201/46195

European: C02F1/461B C02F1/461B2 M02F1/42 M02F1/461B2H

M02F1/461B2J M02F1/461B2L2 M02F1/467B M02F1/467B2 M02F1/467D

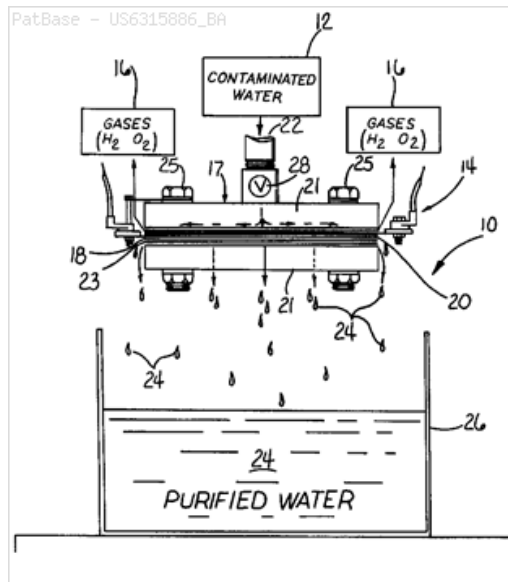
M02F101/16B M02F103/30 M02F201/461B16 M02F201/461B2

M02F201/461B4 M02F201/461B8 M02F303/04 M02F305/02D

US: 204/228.3 204/228.6 204/229.2 204/229.4 204/230.2 204/255

204/256 204/263 204/266 204/270 204/272 204/275.1 205/500 205/701

205/742 205/746 205/758



Family:

Publication number	Publication date	Application number	Application date
AP200102197 A0	20010930	AP20010002197	19991206
AR021567 AA	20020724	AR1999P106220	19991207
AU200031120 A1	20000626	AU20000031120	19991206
AU200031120 A5	20000626	AU20000031120	19991206
AU767548 B2	20031113	AU20000031120	19991206
BG105679 A	20020628	BG20010105679	20010706
BRPI9915992 A	20010904	BR1999P115992	19991206
CA2355346 AA	20010530	CA19992355346	19991206
CA2355346 C	20040720	CA19992355346	19991206
CN1329576 A	20020102	CN1998014149	19991206
CR6382 A	20040324	CR20010006382	20010601
CZ20012002 A3	20020515	CZ20010002002	19991206
EA200100620 A1	20011224	EA20010000620	19991206
EE200100303 A	20020815	EE20010000303	19991206
EP1150921 A1	20011107	EP19990965141	19991206
EP1150921 A4	20030618	EP19990965141	19991206
HU0104664 AB	20020328	HU20010004664	19991206
ID30239 A	20011115	ID20010001452	19991206
IL143529 A0	20020421	IL19990143529	19991206
IS5954 A	20010529	IS20010005954	20010529
JP2002531704 T2	20020924	JP20000586638T	19991206
KR100379123 B1	20030408	KR19990026636	19990702
KR100432971 B1	20040527	KR20017007130	20010607
KR20000047427 A	20000725	KR19990026636	19990702
KR20010093147 A	20011027	KR20017007130	19991206
MXPA01005705 A1	20030714	MX2001PA05705	19991206
NO20012804 A	20010607	NO20010002804	20010607
NO20012804 A0	20010607	NO20010002804	20010607
NO20012804 L	20010607	NO20010002804	20010607
NZ512645 A	20021025	NZ19990512645	19991206
OA11806 A	20050810	OA20011000141	19991206
PL348151 A1	20020506	PL19990348151	19991206
SK200100767 A5	20011203	SK20010000767	19991206
TR200101659 T2	20011022	TR20010001659T	19991206
TW490444 B	20020611	TW19990121297	19991206
US6315886 BA	20011113	US19980206924	19981207
US6328875 BA	20011211	US19990433686	19991104
WO0034184 A1	20000615	WO1999US28869	19991206
ZA200105137 A	20020923	ZA20010005137	20010621

Priority:

US19980206924 19981207 US19990433686 19991104 WO1999US28869 19991206

Probable Assignee: ZAPPI WATER PURIFICATION SYSTEMS INC

Assignee(s): (std): APPI WATER PURIFICATION S STE ; ELECTROSYNTHESIS CO INC ; SABI WATER PURIFICATION SYSTEMS ; ZAPPI WATER PURIFICATION SYSTEMS ; ZAPPI WATER PURIFICATION SYSTE ; ZAPPI WATER PURIFICATION SYSTEMS INC ; ZAPPI WATER PURIFICATION SYSTEMS INC

Assignee(s): ZAPPI GUILLERMO DANIEL ; ZAPPI WATER PURIFICATION SYSTE INC ; ZAPPI WATER PURIFICATION SYSTEMS INC ; ZAPPI WATER PURIFICATION SYSTEM INC ; THE ELECTROSYNTHESIS COMPANY INC ; WEINBERG NORMAN L ; SABI WATER PURIFICATION SYSTEM CO ; APPI WATER PURIFICATION S STEMS INC

Inventor(s): (std): ZAPPI GUILLERMO DANIEL ; WEINBERG NORMAN L ; ZAPPI GUILLERMO D ; GUILLERMO DANIEL ZAPPI ; NORMAN L WEINBERG ; WEINBERG NORMAN L ; APPI GUILLERMO DANIEL

Inventor(s): NORMAL LWEINBERG ; NORMAL L WEINBERG

Agent(s): GRIFFITH HACK; MCCARTHY TETRAULT LLP; MATSUYAMA MINAKO; MASUI CHUJI; SHAMOTO ICHIO; KOBAYASHI YASUSHI; TOMITA HIROYUKI

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

Title: ELECTROCHEMICAL GENERATION OF QUATERNARY AMMONIUM COMPOUNDS

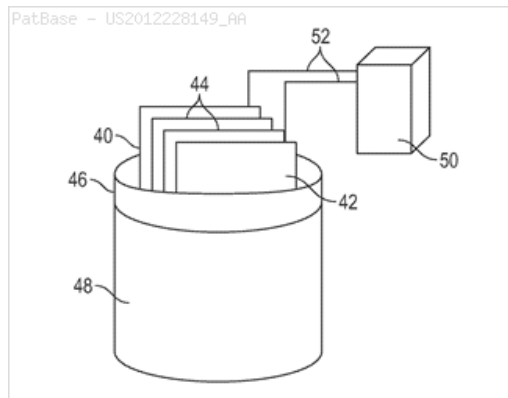
Abstract: Method and apparatus for electrochemical generation of quaternary ammonium hypohalite salts, which may be combined with the capabilities of free chlorine to form a novel biocidal system. An aqueous solution preferably comprising dissolved quaternary ammonium halide salts is electrolyzed, which converts the halide component of the quaternary ammonium salt to the corresponding **halogen**. The **halogen** dissolves in the aqueous solution producing hypohalous acid and hypohalite anion. A combination of one or more quaternary ammonium compounds and a halide salt, surfactant, and/or germicide may be electrolyzed. The solution may be incorporated into a delivery system for example, a spray bottle or hand sanitizer, or as part of a dispensing system whereby quaternary ammonium halide salts absorbed onto wipes can be dispensed as quaternary ammonium hypohalite salts.

Classifications:

International (IPC 8-9): A01N33/12 A01N59/08 A01P3/00 A61L2/16 A61L2/18 C07C211/62 C25B1/24 C25B11/02 C25B9/00 (Advanced/Invention)

CPC: C25B1/24 C25B9/00 C25B11/02 C25B1/26 C25B1/30 C25B3/06

US: 204/275.1 204/278.5 205/551

**Family:**

Publication number	Publication date	Application number	Application date
CA2866348 AA	20140904	CA20122866348	20120308
EP2683417 A2	20140115	EP20120755483	20120308
EP2683417 A4	20150513	EP20120755483	20120308
JP2014508779 T2	20140410	JP20130557873T	20120308
SG193364 A1	20131030	SG20130067582	20120308
US2012228149 AA	20120913	US20120415589	20120308
WO12122395 A2	20120913	WO2012US28316	20120308
WO12122395 A3	20121101	WO2012US28316	20120308

Priority:

US20110450735P 20110309 US20120415589 20120308 WO2012US28316 20120308

Probable Assignee: MIOX CORP

Assignee(s): (std): RIVERA SUSAN ; RIVERA SUSAN B ; SANCHEZ JUSTIN ; BOAL ANDREW K ; MIOX CORP

Assignee(s): MIOX CORP5601 BALLOON FIESTA PARKWAY NEALBUQUERQUENM87113US ; UNION BAY CAPTIAL PARTNERS I LLC

Inventor(s): (std): SANCHEZ JUSTIN ; BOAL ANDREW K ; RIVERA SUSAN ; RIVERA SUSAN B

Inventor(s): RIVERA SUSAN BUS ; SANCHEZ JUSTINUS ; BOAL ANDREW KUS

Agent(s): UREN JOHN RUSSELL; VAN BRED A JACOBUS; ASKENAZY PHILIP D

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 MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SILVER DIHYDROGEN CITRATE COMPOSITIONS COMPRISING A SECOND ANTIMICROBIAL AGENT

Abstract: Compositions comprising silver dihydrogen citrate in combination with a second antimicrobial compound are provided. The second antimicrobial compound may be quaternary **ammonia**, an oxidizer or a **halogen** species, such as chlorine, bromine or iodine. Methods of using the antimicrobial composition provide superior antimicrobial effects.

Classifications:

International (IPC 8-9): A01N A01N25/02 A01N25/22 A01N25/30 A01N25/34 A01N31/02 A01N33/04 A01N33/12 A01N37/00 A01N37/04 A01N37/36 A01N55/02 A01N55/06 A01N59/00 A01N59/02 A01N59/08 A01N59/12 A01N59/14 A01N59/16 A01P1/00 A01P15/00 A01P3/00 A61K31/19 A61K31/28 A61L15/16 A61P31/00 C07C59/265 D06M11/09 D06M11/30 D06M11/50 D06M13/207 (Advanced/Invention); A01N33/12 A61K31/28 A61P31/00 (Advanced/Non-invention); A01N A61K (Subclass/Invention)

International (IPC 1-7): A01N33/12 A01N37/00 A01N55/02 A01N59/00 A61F2/00 A61K A61K31/28 A61L15/16

CPC: Y10T442/2525 A01N37/36 A01N31/02 A01N59/16 C07C59/265

European: A01N31/02 A01N37/36 A01N59/16 C07C59/265

US: 424/443 424/443P 442/123 442/123S 514/495 514/495S 514/497 514/574 514/574S 562/584 562/584P

Family:

Publication number	Publication date	Application number	Application date
AU2004267997 AA	20050310	AU20040267997	20040827
AU2004267997 BB	20100603	AU20040267997	20040827
AU2004285411 AA	20050512	AU20040285411	20040827
AU2004285411 BB	20090924	AU20040285411	20040827
AU2009251057 AA	20100114	AU20090251057	20091221
AU2009251057 BB	20111027	AU20090251057	20091221
CA2536955 AA	20060224	CA20042536955	20040827
CA2537059 AA	20060224	CA20042537059	20040827
CN100352349 C	20071205	CN200480024460	20040827
CN1842274 A	20061004	CN200480024460	20040827
CN1893827 A	20070110	CN200480024459	20040827
CN1893827 B	20120704	CN200480024459	20040827
EP1667601 A2	20060614	EP20040782318	20040827
EP1667601 A4	20101110	EP20040782318	20040827
EP1675463 A2	20060705	EP20040816833	20040827
EP1675463 A4	20100929	EP20040816833	20040827
HK1092014 A1	20070202	HK20060113672	20061213
HK1092014 A3	20070202	HK20060113672	20061213
HK1092015 A1	20070202	HK20060113993	20061220
HK1092015 A3	20070202	HK20060113993	20061220
IL173896 A0	20060705	IL20040173896	20040827
IL173897 A0	20060705	IL20060173897	20060223
IL173897 A1	20120924	IL20040173897	20040827
IN01563DN2006 A	20070615	IN2006DN01563	20060323
IN01564DN2006 A	20070615	IN2006DN01564	20060323
IN244453 B	20101210	IN2006DN01563	20060323
JP2007504153 T2	20070301	JP20060524866T	20040827
JP2007504157 T2	20070301	JP20060524884T	20040827
JP2010265312 A2	20101125	JP20100182644	20100817
JP2012092152 A2	20120517	JP20120029535	20120214
JP2012092153 A2	20120517	JP20120029536	20120214
JP4971792 B2	20120711	JP20060524884T	20040827
KR101153567 B1	20120611	KR20067004264	20040827
KR101250119 B1	20130402	KR20067004260	20040827
KR20070017094 A	20070208	KR20067004260	20040827
KR20070020367 A	20070221	KR20067004264	20040827
NO20061244 A	20060502	NO20060001244	20060317
NO20061244 L	20060502	NO20060001244	20060317
NO20061361 A	20060522	NO20060001361	20060324
NO20061361 L	20060522	NO20060001361	20060324
NZ545932 A	20090925	NZ20040545932	20040827
NZ545933 A	20090925	NZ20040545933	20040827
US2005202066 AA	20050915	US20040928639	20040827
US2005245605 AA	20051103	US20040928638	20040827
US2006100273 AA	20060511	US20050298130	20051208
US2007185350 AA	20070809	US20070729175	20070327
US7732486 BB	20100608	US20070729175	20070327
WO05020915 A2	20050310	WO2004US27820	20040827
WO05020915 A3	20050922	WO2004US27820	20040827
WO05041861 A2	20050512	WO2004US27901	20040827
WO05041861 A3	20051027	WO2004US27901	20040827
ZA200602542 A	20070926	ZA20060002542	20040827
ZA200602543 A	20080326	ZA20060002543	20040827

Priority:

US20030498347	20030828	US20030498347	20030828	US20030498347P	20030828
AU20040285411	20040827	JP20060524866	20040827	JP20060524866T	20040827
WO2004US27820	20040827	WO2004US27901	20040827	US20040928638	20040827
US20040928639	20040827	US20050298130	20051208	US20070729175	20070327
AU20090251057	20091221				

Probable Assignee: PURE BIOSCIENCE

Assignee(s): (std): ARATA ANDREW B ; PURE BIOSCIENCE ; PURE BIOSCIENCE INC

Assignee(s): KRALL MICHAEL L

Inventor(s): (std): ARATA ANDREW B ; KRALL MICHAEL L ; ANDREW B ARATA ; KRALL ANDREW L ; CLARE M L

Inventor(s): ARATA ANDREW ; CLARE ML ; MICHAEL L KRALL ; ANDREW L KRALL

Agent(s): GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; DEACONS; WOLFF BREGMAN AND GOLLER;
MCDERMOTT WILL AND EMERY; MCDERMOTT WILL AND EMERY LLP; NEEDLE AND ROSENBERG PC;
MORRISON AND FOERSTER LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK
DM DZ EC EE EG 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 NA NE NI NL NO NZ OM PG PH PL PT RO RU
SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

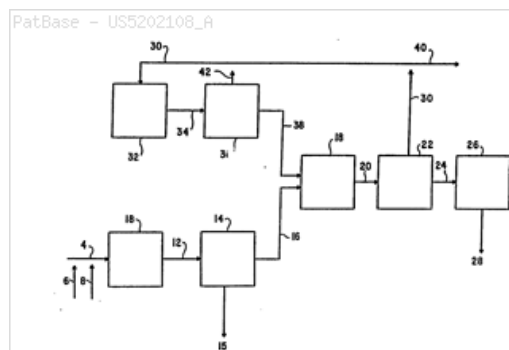
Abstract: A process for producing stable, high purity ferrate (VI) employing beta-ferric oxide (beta-Fe₂O₃), and preferably monohydrated beta-ferric oxide (beta-Fe₂O₃xH₂O) as the iron source. An improved process for producing stable, high purity beta-ferric oxide is also disclosed. The process results in the efficient and effective productions of ferrate with high yields and small amounts of waste production. A large portion of the unused product stream can be recycled to the ferrate reactor for the production of additional ferrate.

International (IPC 8-9): C01G49/00 C01G49/06 (Advanced/Invention); C01G49/00 C01G49/02 (Core/Invention)

CPC: C01G49/0081 C01G49/06 C01P2006/60

European: C01G49/00C20 C01G49/06 M01P6/60

US: 423/140 423/266 423/594 423/594.12 423/594.6 423/633



Publication number	Publication date	Application number	Application date
AU199188676 A1	19920520	AU19910088676	19911011
US5202108 A	19930413	US19900596877	19901012
US5370857 A	19941206	US19930046787	19930413
WO9206924 A1	19920430	WO1991US07519	19911011

US19900596877 19901012 WO1991US07519 19911011 US19930046787 19930413

Assignee(s): (std): DEININGER J PAUL ; ANALYTICAL DEV CORP

Assignee(s): ANALYTICAL DEVELOPMENT A CO CORP ; ANALYTICAL DEVELOPMENT CORP ; PHELPS TOINTON INC ; SHERIDAN ROSS AND MCINTOSH ESQ 1700 LINCOLN STREET ; SHERIDAN ROSS AND MCINTOSH ESQ

Inventor(s): (std): DEININGER J PAUL

Inventor(s): J PAUL DEININGER ; DEININGER J

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LK LU MC
MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG

Title: WIRELESS CONTROL FOR CREATION OF, AND COMMAND RESPONSE TO, STANDARD FREIGHT SHIPMENT MESSAGES

Abstract: A freight management arrangement includes a monitor system that communicates over wireless with a large number of freight assets by land and with smaller number of users each associated with a fleet of the freight assets. The monitor system polls sensed ambient data in the freight assets on the basis of requests from the users. The requests may be stored as data in the monitor system or occur on a real-time basis.

Classifications:

International (IPC 8-9): B01J19/08 B60R25/10 C02F1/46 C02F1/461 C25D17/00 G06F11/00 G06Q10/00 G06Q10/08 G08B1/08 G08B25/00 G08B25/14 H04B17/00 H04M3/42 H04Q7/20

H04W24/00 (Advanced/Invention);

C02F1/461 C25D17/00 G06Q10/00 G08B25/00 G08B25/14

H04Q7/20 (Core/Invention);

H04L (Subclass/Invention)

International (IPC 1-7): H04Q7/20

CPC: C01B13/10 C02F1/4672 C02F1/4674 C02F1/78 C02F9/00

C02F2103/42 C02F2201/4612 C02F2201/782 C02F2209/003 C02F2209/04

C02F2209/06 C02F2209/07 C02F2305/023 G06Q10/08 G08B25/009

G08B25/14

European: C01B13/10 C02F1/467B C02F1/467B2 C02F1/78 G06Q10/08

G08B25/00S G08B25/14 M02F103/42 M02F201/461B6 M02F201/782

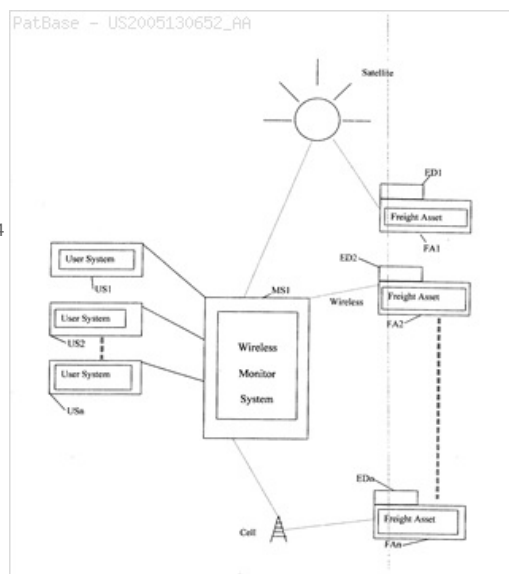
M02F209/00D M02F209/04 M02F209/06 M02F209/07 M02F305/02B

M02F9/00

US: 204/277 204/277S 205/556 205/701 205/701S 205/752 205/752S

340/426.2 340/426.200P 340/539.1 340/539.100P 455/414.1 455/423

455/425 455/432.2 455/432.200P 455/456.1 455/456.100S 702/188



Family:

Publication number	Publication date	Application number	Application date
US2005130652 AA	20050616	US20040877954	20040624
US2006027463 A	20060209	US20050166797	20050623
US2007200687 AA	20070830	US20040562402	20040624
US2010321179 AA	20101223	US20100763188	20100419
US7702327 BB	20100420	US20040562402	20040624
US8855626 BB	20141007	US20100763188	20100419
WO05002125 A2	20050106	WO2004US20503	20040624
WO05002125 A3	20060727	WO2004US20503	20040624
WO06002406 A2	20060105	WO2005US22612	20050623
WO06002406 A3	20060914	WO2005US22612	20050623

Priority:

US20030480980P 20030624	US20030482258P 20030625	US20030582258P 20030625
US20030482889P 20030626	US20040582258P 20040623	US20040562402 20040624
WO2004US20503 20040624	US20040877954 20040624	US20050166797 20050623
US20070562402 20070228	US20100763188 20100419	

Probable Assignee: STARTRAK INFORMATION TECHNOLOGIES LLC

Assignee(s): (std): EHRGOTT BILL ; FRAIM MICHAEL LEE ; O TOOLE ARTHUR J ; LAVELLE DENNIS ; LEGER TREVOR ; STARTRAK L L C ; ROBINSON THOMAS A ; STARTRAK SYSTEMS LLC ; STARTRAK INFORMATION TECHNOLOGIES LLC ; CLAWSON ALLEN D ; DEL IND INC

Assignee(s): DEL INDUSTRIES INC ; DEL IND ; AMERISCAN INC ; US BANK NATIONAL ASSOCIATION COLLATERAL AGENT AS ; ORBCOMM INT HOLDINGS 1 LLC ; ORBCOMM INT HOLDINGS 2 LLC ; ORBCOMM INT HOLDINGS 3 LLC ; ORBCOMM INT HOLDINGS LLC ; ORBCOMM LICENSE CORP ; ORBCOMM LLC ; ORBCOMM SENS LLC ; ORBCOMM SOUTH AFRICA GATEWAY CO LLC ; ORBCOMM TERRESTRIAL LLC ; RIDGELEY HOLDINGS LLC ; STARTRAK LOGISTICS MANAGEMENT SOLUTIONS LLC ; MACQUARIE CAF LLC ; GLOBALTRAK LLC ; MOBILENET LLC ; ORBCOMM AFRICA LLC ; ORBCOMM AIS LLC ; ORBCOMM CENTRAL AMERICA HOLDINGS LLC ; ORBCOMM CHINA LLC ; ORBCOMM CIS LLC ; ORBCOMM INC ; ORBCOMM INDIA LLC ; JPMORGAN CHASE BANK NA COLLATERAL AGENT FOR SECURED PARTIES AS ; STARTRAK LLC

Inventor(s): (std): O TOOLE ARTHUR J ; ROBINSON THOMAS A ; LAVELLE DENNIS ; CLAWSON ALLEN D ; EHRGOTT BILL ; LEGER TREVOR ; FRAIM MICHAEL L ; FRAIM MICHAEL LEE

Inventor(s): O'TOOLE ARTHUR J ; CLAWSON ALLEN ; FRAIM MICHAEL ; O TOOLE ARTHUR ; ROBINSON THOMAS

Agent(s): LEO STANGER ; STOUT UXA BUYAN AND MULLINS LLP ; LEO ; DRINKER BIDDLE AND REATH LLP

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

Title: ELECTROCHEMICAL ACTIVATION OF WATER

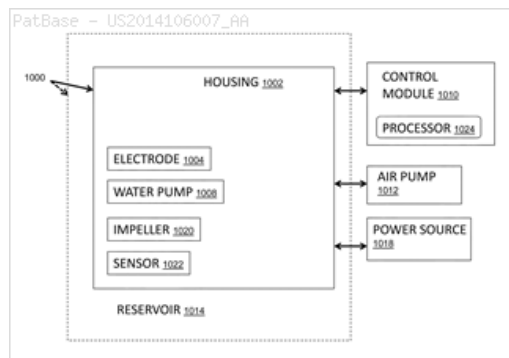
Abstract: The methods, systems, and apparatus disclosed herein employ natural, common salts, that are electrochemically activated (ECA) in an aqueous solution to result in an ECA product solution that is safe and non-toxic. Various implementations include a portable table top design having a portable receptacle that includes electrodes. The receptacle fits on a base which provides power for the electrochemical activation. Continuous flow designs receive input water, mix the water with reactants then pass the solution between electrodes to electrochemically activate the solution. Using a metal halide salt, such as NaCl with citric acid may produce a sanitizer or disinfectant. Using a metal carbonate salt, such as K₂CO₃, as the reactant may result in a cleaning or degreasing solution. Another implementation is that of an immersion wand that can be placed in a reservoir to produce the ECA product solution.

Classifications:

International (IPC 8-9): A01N59/00 B08B3/02 B08B3/08 B08B3/10 C01B11/04 C02F C02F1/46 C02F1/461 C02F1/467 C25B C25B1/02 C25B1/26 C25B11/08 C25B15/02 C25B15/04 C25B9/06 C25B9/12 (Advanced/Invention); C02F1/467 C02F103/10 C02F103/36 (Advanced/Non-invention); C02F C25B (Subclass/Invention)

CPC: A01N59/00 C25B1/26 C01B11/04 C25B1/02 C25B9/125 C02F2201/46135 C02F2201/4614 C02F2201/4618 C02F2307/12 Y02W10/37 C02F1/4674 B08B3/08 B08B3/102 B08B3/026 C25B15/04 C25B9/12 C02F1/4618 C02F2001/46123 C02F2001/46138 C02F2201/009 C02F2209/29 C25B15/02 C02F2103/365 C02F2201/4613 C02F2103/10 Y02A20/212 Y02P20/134

US: 1/1 204/212 204/225 204/230.2 205/334 205/335 205/556 424/661 424/722



Family:

Publication number	Publication date	Application number	Application date
DE602013030588 D1	20180111	DE201360030588T	20131016
EP2909362 A1	20150826	EP20130847278	20131016
EP2909362 A4	20160720	EP20130847278	20131016
EP2909362 B1	20171206	EP20130847278	20131016
HK1214311 A1	20160722	HK20160102150	20160225
HK1214311 B	20180824	HK20160102150	20160225
US2014106007 AA	20140417	US20130055630	20131016
US2016024667 AA	20160128	US20150874117	20151002
US2016108531 AA	20160421	US20150976324	20151221
US2016303615 AA	20161020	US20160192472	20160624
US2017120307 AA	20170504	US20170404042	20170111
US2017304875 AA	20171026	US20170646686	20170711
US2018361435 AA	20181220	US20180112212	20180824
US9309601 BB	20160412	US20130055630	20131016
US9399823 BB	20160726	US20150976324	20151221
US9573171 BB	20170221	US20160192472	20160624
US10016791 BB	20180710	US20170404042	20170111
US10086412 BB	20181002	US20170646686	20170711
WO14062837 A1	20140424	WO2013US65294	20131016
WO16054572 A1	20160407	WO2015US53826	20151002

Priority:

US20120714601P	20121016	EP20130847278	20131016	US20130055630	20131016
WO2013US65294	20131016	US20140059685P	20141003	US20150874117	20151002
US20150976324	20151221	US20160192472	20160624	US20170404042	20170111
US20170646686	20170711	US20180112212	20180824		

Probable Assignee: GENEON TECHNOLOGIES LLC

Assignee(s): (std): GENEON TECH LLC ; GENEON TECHNOLOGIES LLC

Assignee(s): GENEON TECHNOLOGIES LLC SAN ANTONIO

Inventor(s): (std): GONZALEZ REMIGIO BENAVIDES ; SHANAHAN JOHN P ; GONZALES REMIGIO BENAVIDES

Inventor(s): SHANAHAN JOHN P DISCOVERY BAY ; GONZALEZ REMIGIO BENAVIDES SAN ANTONIO

Agent(s): FINDLAY ALICE ROSEMARY; CLT PATENT AND TRADEMARK HK LTD; GTC LAW GROUP PC AND AFFILIATES; ZALE LAWRENCE P; OKEY DAVID W

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 IR 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Combined ozonation and electrolytic chlorination water purification system

Abstract: A water purification system for a swimming pool, pond, aquatic mammal tank, spa or fountain, which is simple to operate, low in maintenance, and highly reliable. The system takes advantage of synergistic benefits derived from the combination of ozonation and electrolytic chlorination in the same system. Combining both of the technologies of Ozonation and Electrolysis allows as in-site production of at least one of chlorine dioxide that is used as a disinfectant agent for treating water reservoirs.

Classifications:

International (IPC 8-9): C02F1/467 C02F1/78 (Advanced/Invention);

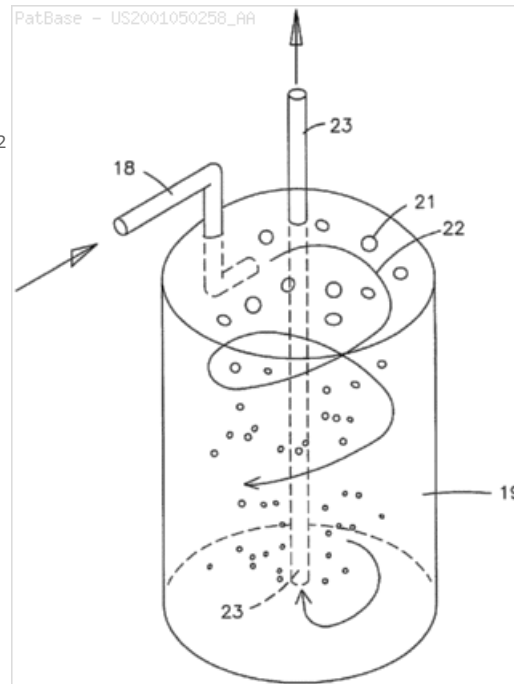
C02F1/38 C02F1/461 C02F9/00 (Advanced/Non-invention)

International (IPC 1-7): C02F1/467 C02F1/48 C02F1/78

CPC: C02F1/38 C02F1/4674 C02F1/78 C02F9/00 C02F2001/46133
C02F2103/42 C02F2201/78 C02F2303/04

European: C02F1/467B2 C02F1/78 M02F1/38 M02F1/461B2J M02F103/42
M02F201/78 M02F303/04 M02F9/00

US: 204/176 204/252 204/293 205/474 205/752 205/756 210/167.11
210/170.09 210/192 210/199 210/202 210/205 210/748 210/748.19
210/748.2 210/748.200P 210/752 210/754 210/760 210/764 210/787



Family:

Publication number	Publication date	Application number	Application date
AU2002241465 AA	20030303	AU20020241465	20010813
US2001050258 AA	20011213	US20010928814	20010813
US2001052502 AA	20011220	US20010928813	20010813
US2003094421 AA	20030522	US20020323334	20021218
US6277288 BA	20010821	US19990351771	19990712
US6517713 BB	20030211	US20010928813	20010813
US6551518 BB	20030422	US20010928814	20010813
US6814877 BB	20041109	US20020323334	20021218
WO03016224 A1	20030227	WO2001US41688	20010813

Priority:

US19990351771 19990712 US20010928813 20010813 US20010928814 20010813
WO2001US41688 20010813 US20020323334 20021218

Probable Assignee: GARGAS JOSEPH

Assignee(s): (std): GARGAS JOSEPH ; MURPHY ROBERT

Assignee(s): CLARIPURE A CONTRACT TRUST ORGANIZATION

Inventor(s): (std): GARGAS JOSEPH

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 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 LK LR
LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ
TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Title: MULTIVALENT IRON ION SEPARATION IN METAL RECOVERY CIRCUITS

Abstract: The present invention is directed to the selective removal of ferric ion and/or ferric compounds from valuable metal recovery process streams.

Classifications:

International (IPC 8-9): B01D61/00 C01G49/02 C01G49/04 C01G49/06 C22B15/00 C22B23/00 C22B3/00 C22B3/04

C22B3/22 (Advanced/Invention);

C01G49/02 C22B15/00 C22B3/00 (Core/Invention)

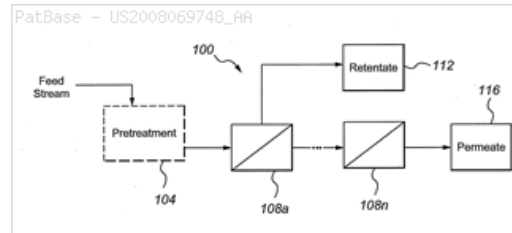
CPC: C01G49/0 C22B15/0 Y02P10/234 Y02P10/236 C01G49/00

C01G49/04 C01G49/06 C22B3/18 C22B3/22 C22B15/0086 C22B15/0089

European: C01G49/00 C01G49/04 C01G49/06 C22B15/00L4B

C22B15/00L4D C22B3/18 C22B3/22

US: 423/150.1



Family:

Publication number	Publication date	Application number	Application date
CL2007002699 A1	20080229	CL20070002699	20070920
PE06482008 A1	20080719	PE20070001273	20070920
US2008069748 AA	20080320	US20070858485	20070920
WO08036816 A2	20080327	WO2007US79031	20070920
WO08036816 A3	20080717	WO2007US79031	20070920

Priority:

US20060826311P 20060920 US20070858485 20070920

Probable Assignee: HW ADVANCED TECHNOLOGIES INC

Assignee(s): (std): HW ADVANCED TECHNOLOGIES INC ; LIEN LARRY A ; LOMBARDI JAY ; TRANQUILLA JAMES

Inventor(s): (std): LARRY A LIEN JAY LOMBARDI JAME ; LIEN LARRY A ; LOMBARDI JAY ; TRANQUILLA JAMES ; TRANQUILLA JIM

Inventor(s): LARRY A LIEN JAY LOMBARDI JAMES TRANQUILLA ; LIEN LARRY ; JAMES TRANQUILLA ; JAY LOMBARDI ; LARRY A LIEN

Agent(s): JOHANSSON; SHERIDAN ROSS PC; SWARTZ DOUGLAS W

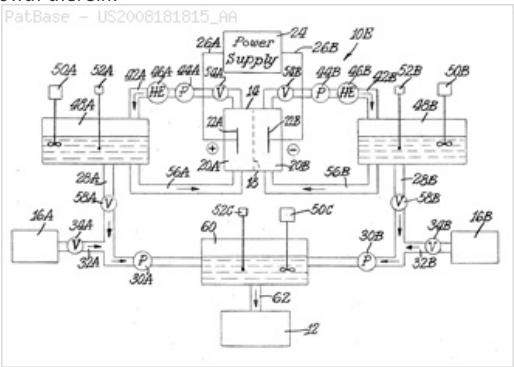
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE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

Title: ELECTROCHEMICAL SYNTHESIS OF HALOAMINE **BIOCIDES**

Abstract: Haloamine **biocides** are prepared via multi-step processes in an integrated apparatus comprising an electrochemical cell and a mixing chamber, wherein active **halogen** donor species are electrochemically generated and subsequently reacted with amine-containing compositions to form haloamine **biocide**. Haloamine **biocides** prepared according to such processes are used to treat liquids in order to inhibit, reduce, and/or control microorganism growth therein.

Classifications:

International (IPC 8-9): A61L2/16 A61L2/18 C02F1/461 C25B1/26 C25B3/00 C25B3/06 C25B9/08 (Advanced/Invention); A61L2/16 C02F1/00 C02F1/461 C25B1/00 C25B3/00 C25B9/06 (Core/Invention); C02F C25B (Subclass/Invention)
CPC: C02F1/467 C02F1/50 C02F1/76 C02F2303/04 C25B1/26 C25B3/06 M02F1/50 C25B1/26 C25B3/06 M02F1/467 M02F1/76 M02F303/04
European: C02F1/50 C25B1/26 C25B3/06 M02F1/467 M02F1/76 M02F303/04
US: 204/261 204/261S 205/356 205/359 205/431 205/431S 422/37 422/37P



Family:

Publication number	Publication date	Application number	Application date
AU2008209432 AA	20080731	AU20080209432	20080124
AU2008209432 BB	20120209	AU20080209432	20080124
BRPI0807183 A2	20140422	BR2008PI07183	20080124
CA2676504 AA	20090724	CA20082676504	20080124
CA2676504 C	20141007	CA20082676504	20080124
CN101688317 A	20100331	CN200880009930	20080124
CN101688317 B	20111207	CN200880009930	20080124
EP2106463 A1	20091007	EP20080713270	20080124
EP2106463 B1	20180815	EP20080713270	20080124
ES2689092 T3	20181108	ES20080713270T	20080124
KR101544220 B1	20150812	KR20097017566	20080124
KR20090117745 A	20091112	KR20097017566	20080124
MX2009007920 A1	20090813	MX20090007920	20080124
NZ578582 A	20130125	NZ20080578582	20080124
PL2106463 T3	20181231	PL20080713270T	20080124
TW200902095 A	20090116	TW20080102924	20080125
TWI418371 B	20131211	TW20080102924	20080125
US2008181815 AA	20080731	US20070698475	20070125
US8747740 BB	20140610	US20070698475	20070125
WO08091678 A1	20080731	WO2008US00957	20080124
ZA200905872 A	20101124	ZA20090005872	20090824

Priority:

US20070698475 20070125 EP20080713270 20080124 WO2008US00957 20080124

Probable Assignee: HERCULES INC

Assignee(s): (std): HERCULES INC ; CHENG HUAI N ; MAYER MICHAEL J ; SINGLETON FREDDIE L ; SHAROYAN DAVID E ; SOLENIS TECHNOLOGIES CAYMAN LP ; SOLENIS TECH CAYMAN L P

Assignee(s): SOLENIS TECHNOLOGIES LP ; SOLENIS TECHNOLOGIES CAYMAN LPRHEINWEG 118200SCHAFFHAUSENCH ; SHAROYAN DAVID ; CREDIT SUISSE CAYMAN ISLANDS BRANCH WAS KNOWN C AS ; BANK OF NOVA SCOTIA ADMINISTRATIVE AGENT AS ; BANK OF AMERICA NA COLLATERAL AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH COLLATERAL AGENT AG AS ; HERCULES INCHERCULES PLAZA1313 NORTH MARKET STREETWILMINGTONDE19894-0001US ; CITIBANK NA COLLATERAL AGENT ; ISP INVESTMENTS INC ; CREDIT SUISSE CAYMAN ISLANDS BRANCH WAS KNOWN CREDIT SUISSE FIRST BOSTON COLLATERAL AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH WAS KNOWN AS C ; CREDIT SUISSE CAYMAN ISLANDS BRANCH WAS KNOWN AS CREDIT SUISSE FIRST BOSTON AS COLLATERAL AGENT.. ; AQUALON CO ; ASHLAND INC ; ASHLAND LICENSING AND INTELLECTUAL PROPERTY LLC ; BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; BANK OF AMERICA NA AS ADMINISTRATIVE AGENT

Inventor(s): (std): SINGLETON FREDDIE L ; CHENG HUAI N ; MAYER MICHAEL J ; SHAROYAN DAVID ; SHAROYAN DAVID E ; DAVID SHAROYAN ; SHAROYAN DAVIT ; SINGLETON FREDDIE ; CHENG HUAI ; MAYER MICHAEL

Inventor(s): SHAROYAN DAVIDUS ; CHENG HUAI NUS ; MAYER MICHAEL JUS ; SINGLETON FREDDIE LUS ; FREDDIE L SINGLETON ; MICHAEL J MAYER ; HUAI N CHENG

Agent(s): SPRUSON AND FERGUSON; MOFFAT AND CO; SIEGERT GEORG; LKGLOBAL LORENZ AND KOPF PARTG MBB PATENTANWAELTE; ELZABURU SLP ELZABURU SLP; JOANNE MARY FOBARE ROSSI HERCULES INC; JOANNE; MICHAEL J; ROSSI JOANNE MARY FOBARE

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 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: APPARATUS AND A METHOD FOR TREATING EFFLUENT

Abstract: Apparatus (10) for treating aqueous wastes, such as wastewater, landfill leachates and aqueous effluents, comprises an **electrolytic cell** (12). The aqueous (10) also includes electrical pulse generating means for generating a series of electrical pulses between the electrodes of the cell.

Classifications:

International (IPC 8-9): C02F1/461 (Advanced/Invention);

C02F1/467 (Advanced/Non-invention)

International (IPC 1-7): C02F1/461 C02F1/467

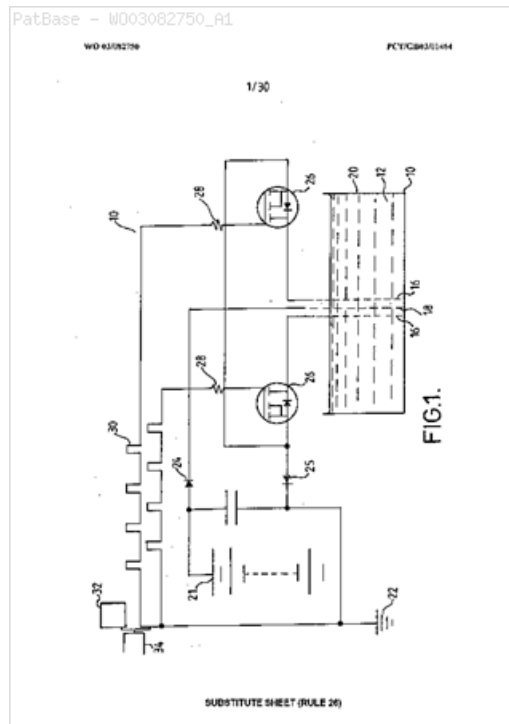
CPC: C02F1/46104 C02F1/46109 C02F1/4672 C02F1/4674

C02F2001/46138 C02F2101/16 C02F2101/30 C02F2103/06

C02F2201/46125 C02F2201/46145 C02F2201/4616 C02F2201/46175

C02F2209/06 C02F2303/04

European: C02F1/461B M02F1/461B2 M02F1/461B2J2 M02F1/467B
M02F1/467B2 M02F101/16 M02F101/30 M02F103/06 M02F201/461B10
M02F201/461B10F M02F201/461B6B M02F201/461B6D M02F209/06
M02F303/04



Family:

Publication number	Publication date	Application number	Application date
AU2003227855 AA	20031013	AU20030227855	20030403
GB200207735 A0	20020515	GB20020007735	20020403
GB200214910 A0	20020807	GB20020014910	20020627
WO03082750 A1	20031009	WO2003GB01464	20030403

Priority:

GB20020007735 20020403 GB20020014910 20020627 WO2003GB01464 20030403

Probable Assignee: COLLEY BRIAN J

Assignee(s): (std): ADVANCED OXIDATION LTD ; BRAY PATRICK SIMON ; COLLEY BRIAN J ; DAVIDSON ALEXANDER PHILIP

Assignee(s): ADVANCED OXIDATION LIMITED

Inventor(s): (std): DAVIDSON ALEXANDER PHILIP ; BRAY PATRICK SIMON

Inventor(s): PATRICK SIMON BRAY ; ALEXANDER PHILIP DAVIDSON

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 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 VC VN YU ZA ZM ZW

Title: IN SITU PRODUCTION OF A BIOCIDAL BROMINE SPECIES VIA ELECTROLYSIS

Abstract: This invention provides a one-stage process for generating a biocidal solution in situ, including a reaction between an ammonium salt and an electrolytically generated bromine oxidative species.

Classifications:

International (IPC 8-9): A01N33/14 A01N59/00 A01P1/00 A01P15/00 A01P3/00 C02F1/461 C25B1/24 C25B9/00 (Advanced/Invention)

CPC: C02F1/4674 C02F2201/4617 C02F2201/4618 C25B3/06 C25B15/08 C25B1/24 A01N59/00

US: 204/242 205/551 424/723

Family:

Publication number	Publication date	Application number	Application date
EP2794957 A1	20141029	EP20120860699	20121219
EP2794957 A4	20150429	EP20120860699	20121219
JP2015507089 T2	20150305	JP20140548334T	20121219
US2014322362 AA	20141030	US20120366048	20121219
WO13093915 A1	20130627	WO2012IL50536	20121219

Priority:

US20110578920P 20111222 US20120366048 20121219 WO2012IL50536 20121219

Probable Assignee: BROMINE COMPOUNDS LTD

Assignee(s): (std): BROMINE COMPOUNDS LTD

Inventor(s): (std): ANTEBI SHLOMO ; FRIM RON

Agent(s): CROCE VALERIA; ASAMURA PATENT OFFICE PC; LUZZATTO AND LUZZATTO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ANTIFUNGAL PAINTS AND COATINGS

Abstract: Antifungal and antibacterial peptides, polypeptides and proteins as antifungal additives for paint and other coatings are disclosed, along with antifungal compositions, and coated surfaces with antifungal properties. Methods of using the coatings for treating and/or inhibiting growth of mold, mildew and other fungi and bacteria on objects such as building materials that are susceptible to such infestation are also disclosed.

Classifications:

International (IPC 8-9): A01N A01N25/00 A01N33/08 A01N37/18 A01N37/44 A01N37/46 A01N63/00 A01N63/02 A01P1/00 A01P3/00 A61F13/00 A61K31/74 A61K38/00 A61K38/08 A61K38/10 A61K47/48 B05D3/00 B05D5/00 B08B3/00 B32B3/12 B32B5/02 B65D81/00 B65D85/84 C07K14/00 C07K14/435 C07K17/00 C07K2/00 C07K5/08 C07K5/10 C07K7/00 C07K7/06 C07K7/08 C08G63/91 C08L89/00 C09D C09D133/00 C09D189/00 C09D201/00 C09D5/14 C09D5/16 C09D7/00 C09D7/12 C09J11/08 C12N C12N11/16 C12N9/00 C12N9/16 C12N9/18 C12N9/20 C12N9/48 C12N9/76 C12N9/78 C12Q1/00 C12Q1/34 C12Q1/527 C12S9/00 (Advanced/Invention); A01N33/00 A01N37/18 A01N37/44 A01N63/00 A01P1/00 A01P3/00 A61F13/00 A61K47/48 B05D3/00 C07K14/00 C07K5/00 C07K7/00 C08G63/00 C08L89/00 C09D201/00 C09D5/14 C09D5/16 C09D7/12 C09J11/00 C12N11/00 C12N9/00 C12N9/16 C12N9/48 C12N9/76 C12N9/78 (Core/Invention); A01N C09D (Subclass/Invention)

International (IPC 1-7): A61K38/00 C08L89/00 C09D201/00 C09D5/14 C09D5/16

CPC: A01N37/46 C07K14/4723 A01N63/00 B08B17/02 C07K7/06 C07K7/08 C09D5/1693 C09D189/00 C12Q1/34 C12Q1/44 C12Q1/61 C09D5/1637 Y10T428/24149 Y10T442/2279 C09D5/1668 C09D5/008 D06M16/003 C09D7/63 C09D7/70 C09D7/65 C09D5/1625 A01N63/02 C08L89/00 C09D5/14 B29C48/30 B29C48/32

European: A01N37/46 A01N63/00 A01N63/02 B08B17/02 C07K7/06 C07K7/08 C09D5/00F C09D5/14 C09D5/16C3K C09D5/16C7 C09D5/16R C09D7/12D4 C09D7/12M C09D7/12S C12Q1/34 C12Q1/44 C12Q1/61 D06M16/00B M08L89/00

US: 106/124.1 106/124.100S 106/15.05 106/15.050P 106/15.050S 106/18.32 106/18.320P 106/18.320P 106/18.320S 106/2 106/2P 106/4 106/4S 106/501.1 106/501.100S 134/26 134/26P 206/216 206/216S 206/524.1 206/524.100S 222/1 222/1S 424/404 424/409 424/422 424/422P 424/426 424/426P 424/78.09 424/94.2 424/94.200P 424/94.61 424/94.64 427/331 427/331S 427/352 427/352S 427/414 427/414P 428/116 428/116S 435/174 435/174S 435/18 435/183 435/183S 435/18P 435/196 435/196S 435/197 435/197S 435/198 435/198S 435/212 435/212S 435/213 435/213S 435/227 435/227S 435/264 435/264S 435/4 435/4S 442/93 442/93S 514/1.1 514/1.100P 514/12 514/16 514/17 514/18 514/2 514/2.4 514/2.400S 514/21.4 514/21.5 514/21.8 514/3.3 514/3.300P 514/3.300S 521/55 521/55P 523/122 523/122S 524/17 524/17S 524/590 525/54.1 525/54.100S 530/324 530/324S 530/326 530/326S 530/327 530/327S 530/329 530/329S 530/330 530/330S 530/331 530/331S 530/350 530/350S

PatBase - W005007758_A2

```

WD 20040720          PC:1/US2004091718

SEQUENCE LISTING

<110> Reactive Surfaces, Ltd.
<130> Antifungal Paints and Coatings
<160> NACT-50451
<180> 48/489.334
<191> 2002-07-03
<192> Unknown
<193> 2004-07-03
<160> 138
<170> PatentIn version 3.1
<210> 1
<211> 6
<212> PPT
<213> peptide
<220>
<221> Misc_Feature
<222> (1)-(10)
<223> n = anything
<400> 1
Xaa Xaa Xaa Xaa Arg Phe
1          5

<210> 2
<211> 6
<212> PPT
<213> peptide
<220>
<221> Misc_Feature
<222> (1)-(10)
<223> n = anything
<400> 2
Xaa Xaa Xaa Xaa Phe His
1          5

<210> 3
<211> 6
<212> PPT
<213> peptide
<220>
<221> Misc_Feature
<222> (1)-(10)
<223> n = anything
<400> 3
Xaa Xaa Xaa Xaa Lys Phe
1          5

```

1/17

Family:

Publication number	Publication date	Application number	Application date
AU2004257205 AA	20050127	AU20040257205	20040706
AU2004257205 BB	20101216	AU20040257205	20040706
AU2011201077 AA	20110407	AU20110201077	20110310
EP1644452 A2	20060412	EP20040756724	20040706
EP1644452 B1	20161214	EP20040756724	20040706
EP2431429 A2	20120321	EP20110168727	20040706
EP2431429 A3	20120627	EP20110168727	20040706
HK1083693 A1	20060707	HK20060104810	20060421
HK1083693 A3	20060707	HK20060104810	20060421
HK1083693 B	20180223	HK20060104810	20060421
HK1156652 A1	20120615	HK20110110948	20111013
HK1156652 A3	20120615	HK20110110948	20111013
IL173658 A0	20090211	IL20060173658	20060209
IL173658 A1	20120430	IL20040173658	20040706
IL218128 A0	20120329	IL20040218128	20040706
IL218129 A0	20120329	IL20120218129	20120215
IL218129 A1	20130930	IL20040218129	20040706
SG179021 A1	20120427	SG20120015939	20100915
US2005058689 AA	20050317	US20040884355	20040702
US2006141003 AA	20060629	US20060368086	20060303
US2009308277 AA	20091217	US20090543072	20090818
US2009308278 AA	20091217	US20090543172	20090818
US2009312232 AA	20091217	US20090543145	20090818
US2009312233 AA	20091217	US20090543160	20090818
US2009312234 AA	20091217	US20090543199	20090818
US2009312261 AA	20091217	US20090543187	20090818
US2009312267 AA	20091217	US20090543090	20090818
US2009312268 AA	20091217	US20090543117	20090818
US2009312269 AA	20091217	US20090543132	20090818
US2010210745 AA	20100819	US20100696651	20100129
US2010233146 AA	20100916	US20090474921	20090529

US2011070376 AA	20110324	US20100882563	20100915
US2011219982 AA	20110915	US20110089479	20110419
US2011224131 AA	20110915	US20110089459	20110419
US2011240064 AA	20111006	US20110069864	20110323
US2011250626 AA	20111013	US20110085061	20110412
US2011269672 AA	20111103	US20110173684	20110630
US2011319320 AA	20111229	US20110173243	20110630
US2012010128 AA	20120112	US20110186734	20110720
US2012010129 AA	20120112	US20110186794	20110720
US2012017802 AA	20120126	US20110232501	20110914
US2012024191 AA	20120202	US20110233088	20110915
US2012028884 AA	20120202	US20110232659	20110914
US2012028885 AA	20120202	US20110233195	20110915
US2012028886 AA	20120202	US20110233223	20110915
US2012097194 AA	20120426	US20110004279	20110111
US2014083324 AA	20140327	US20130093347	20131129
US2014196631 AA	20140717	US20140156007	20140115
US2015191607 AA	20150709	US20130097128	20131204
US7932230 BB	20110426	US20090543199	20090818
US7939500 BB	20110510	US20090543145	20090818
US8497248 BB	20130730	US20110089479	20110419
US8618066 BA	20131231	US20070865514	20071001
WO05007758 A2	20050127	WO2004US21711	20040706
WO05007758 A3	20050915	WO2004US21711	20040706
WO05007758 A8	20160317	WO2004US21711	20040706
WO11034931 A2	20110324	WO2010US48946	20100915
WO11034931 A3	20110811	WO2010US48946	20100915

Priority:

US20020409102P	20020909	US20030485234P	20030703	US20030655345	20030904
US20040884355	20040702	AU20040257205	20040706	EP20040756724	20040706
WO2004US21711	20040706	US20060368086	20060303	US20060827531P	20060929
US20070976676P	20071001	US20070865514	20071001	US20080057705P	20080530
US20080058025P	20080602	US20080243755	20081001	US20090148502P	20090130
US20090474921	20090529	WO2009US45692	20090529	US20090543072	20090818
US20090543090	20090818	US20090543117	20090818	US20090543132	20090818
US20090543172	20090818	US20090543145	20090818	US20090543160	20090818
US20090543199	20090818	US20090543187	20090818	US20090242485P	20090915
US20100293897P	20100111	US20100696651	20100129	US20100316504P	20100323
US20100322910P	20100412	US20100882563	20100915	WO2010US48946	20100915
US20110004279	20110111	AU20110201077	20110310	US20110069864	20110323
US20110085061	20110412	US20110089459	20110419	US20110089479	20110419
US20110173243	20110630	US20110173684	20110630	US20110186734	20110720
US20110186794	20110720	US20110232501	20110914	US20110232659	20110914
US20110233088	20110915	US20110233195	20110915	US20110233223	20110915
US20130093347	20131129	US20130097128	20131204	US20140156007	20140115

Probable Assignee: REACTIVE SURFACES LTD LLP

Assignee(s): (std): MCDANIEL C ; MCDANIEL C STEVEN ; MCDANIEL STEVEN C ; REACTIVE SURFACES LTD ; REACTIVE SURFACES LTD LLP ; STEVEN MCDANIEL C ; REACTIVE SURFACE LTD ; RAWLINS JAMES W ; WALES MELINDA ; WILLIAMS ERIC B

Assignee(s): STEVEN C MCDANIEL ; C MCDANIEL ; C STEVEN MCDANIEL

Inventor(s): (std): MCDANIEL C STEVEN ; MCDANIEL STEVEN C ; MCDANIEL C S ; CARVAJAL JUAN CARLO ; WALES MELINDA E ; WILLIAMS ERIC ; RAWLINS JAMES ; CIPI PIRRO ; WALES MELINDA ; BRAASCH DWAIN ; RAWLINS JAMES W ; WILLIAMS ERIC B

Inventor(s): STEVEN MCDANIEL ; MCDANIEL C ; C STEVEN MCDANIEL

Agent(s): WRAYS; MARCHANT MICHAEL JOHN; ELLA CHEONG HONG KONG LTD; SPRUSON AND FERGUSON HONG KONG LTD; DEACONS; SANFORD TCOLB AND CO; C STEVEN MCDANIEL MCDANIEL AND ASSOCIATES PC; DAFFER MCDANIEL LLP; C STEVEN MCDANIEL C O DAFFER MCDANIEL LLP; RISSMAN HENDRICKS AND OLIVERIO LLP; NOVAK DRUCE CONNOLLY BOVE AND QUIGG LLP; MCDANIEL AND ASSOCIATES PC; MCDANIEL C STEVEN

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 MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: DISINFECTING WATER USED IN A FRACTURING OPERATION

Abstract: A process for disinfecting a treatment fluid is disclosed, including the step of admixing an aqueous solution comprising two or more oxidants generated via electrolysis of a salt solution with a treatment fluid. The mixed oxidants may be generated on site, using a containerized system.

Classifications:

International (IPC 8-9): C02F1/467 C02F1/50 C02F1/72 C02F1/76

C02F1/78 (Advanced/Invention)

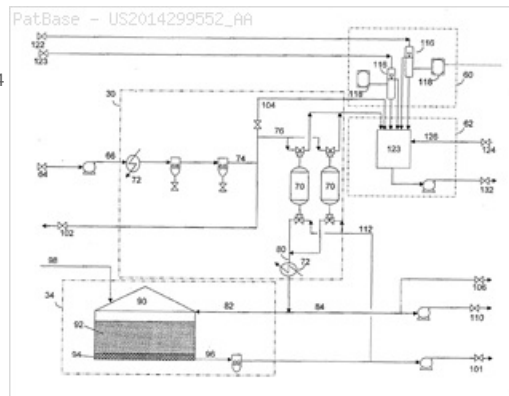
CPC: C02F5/00 C02F1/4672 C02F1/78 C02F1/722 C02F1/766 C02F1/4674

C02F2103/10 C02F2209/04 C02F2209/06 C02F2209/29 C02F2209/40

C02F2303/04

US: 210/143 210/177 210/192 210/739 210/743 210/748.17 210/748.19

210/748.2 210/758 210/759 210/760 210/96.1 210/97



Family:

Publication number	Publication date	Application number	Application date
CA2837194 AA	20131122	CA20122837194	20120525
CN103608299 A	20140226	CN201280025951	20120525
EP2714599 A2	20140409	EP20120793483	20120525
EP2714599 A4	20150128	EP20120793483	20120525
PL407196 A1	20150330	PL20120407196	20120525
RU2552471 C1	20150610	RU20130158356	20120525
US2014299552 AA	20141009	US20120119967	20120525
WO12166670 A2	20121206	WO2012US39736	20120525
WO12166670 A3	20130228	WO2012US39736	20120525
WO12166670 A8	20130530	WO2012US39736	20120525

Priority:

US20110491027P 20110527 US20110523193P 20110812 US20110528991P 20110830
WO2012US39736 20120525 US20120119967 20120525

Probable Assignee: MI LLC

Assignee(s): (std): FAJT JAMES R ; GALLO DANIEL ; KAPILA MUKESH ; MCKEE ALAN ; STEWART COLIN ; BINGHAM RICHARD ; EHM AJ EHL EHL SI ; LOMOND PERRY ; MI LLC

Assignee(s): M I LLC ; EHM AJ EHLEHLSI ; M I L L C

Inventor(s): (std): FAJT JAMES R ; LOMOND PERRY ; GALLO DANIEL ; STEWART COLIN ; BINGHAM RICHARD ; KAPILA MUKESH ; MCKEE ALAN ; BINGKHEHM RICHARD ; STJUART KOLIN ; GALLO DEHNIEL ; FEHDZHT DZHEJMS R ; LOMOND PERRI ; MAKKI ALAN

Agent(s): FINLAYSON AND SINGLEHURST; MURGITROYD GEORGE EDWARD; BERGMAN JEFFREY S ET AL

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 MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MICROBIOCIDAL SOLUTION WITH OZONE AND METHODS

Abstract: A microbiocidal solution is provided that includes an electrolyzed saline solution, ozone, and active chlorine species producible via electrolysis that is usable to sanitize and disinfect a surface or substance. A method for producing a microbiocidal solution is provided that includes preparing a dilute saline solution and subjecting the dilute saline solution to electrolysis to produce an electrolyzed saline solution and active chlorine species and including ozone. A method also is provided for disinfecting a surface or substance using a microbiocidal solution where ozone disinfects via high oxidation properties and the active chlorine species provides a residual disinfectant effect. The microbiocidal solution may also include hydroxyl radicals and oxy-chloro species.

Classifications:

International (IPC 8-9): A01N59/00 C25B1/26 (Advanced/Invention)

CPC: C25B1/26 A01N59/00 A23L3/358 A61L2/183 A23B7/157

US: 205/556 424/613

PatBase - US2014302168_60

NaCl/Acetic acid		
Time	Mil-pH-Comp	Mil-ORP-Comp
Initial	8.68/8.55	218/224
30	3.86/3.68	999+/982
60	3.86/3.59	999+/983
90	3.94/3.90	999+/1030
120	3.99/3.96	999+/1030
150	4.04/3.98	999+/1030
180	4.10/4.07	999+/1030
210	4.13/4.10	999+/1030
240	4.18/4.20	999+/1030
270	4.20/4.20	999+/1030
300	4.26/4.23	999+/1030
330	4.28/4.27	999+/1030
360	4.29/4.28	999+/1030
1.7 gr + 2.55 gr/gal		

FIG. 1

DCIC		
Time	Mil-pH-Comp	Mil-ORP-Comp
Initial	8.16/8.26	312/314
30	7.02/6.99	875/905
60	6.95/6.99	877/905
90	6.87/6.99	878/906
120	6.84/6.99	878/906
150	6.78/6.93	878/906
180	6.75/6.91	878/906
210	6.71/6.89	877/904
240	6.66/6.78	877/904
270	6.64/6.78	876/903
300	6.62/6.73	876/902
330	X	X
360	X	X
2 grams/gal		

FIG. 2

Family:

Publication number	Publication date	Application number	Application date
US2014302168 AA	20141009	US20140247303	20140408

Priority:

US20130809501P 20130408 US20140247303 20140408

Probable Assignee:

PERRY STEPHEN C

Assignee(s): (std):

PERRY STEPHEN C

Inventor(s): (std):

PERRY STEPHEN C

Title: ELECTROCHEMICAL GENERATION OF CHLORINATED UREA DERIVATIVES

Abstract: Method of single step electrochemical generation of chlorinated urea, chlorinated dimethylurea and other chlorourea derivatives is disclosed. The chlorinated species are generated in situ and upon demand and can be used for microbial control in industrial water treatment.

Classifications:

International (IPC 8-9): C02F C02F1/467 C02F1/50 C07C273/18 C25B C25B3/06 (Advanced/Invention)

CPC: C02F2001/46138 C02F2103/023 C02F2103/28 C02F2103/32 C02F2103/343 C02F2103/42 C02F2201/46115 C02F2201/46145 C02F2209/06 C07C273/1863 C02F1/4674 C25B3/06 C02F2303/04 C07C275/08

US: 514/588 564/32

Family:

Publication number	Publication date	Application number	Application date
AU2013289143 AA	20140116	AU20130289143	20130605
BR112015000345 A2	20170627	BR20151100345	20130605
CA2878438 AA	20150106	CA20132878438	20130605
CL2015000062 A1	20150508	CL20150000062	20150109
CN104487616 A	20150401	CN201380037112	20130605
EP2872674 A1	20150520	EP20130729216	20130605
KR20150036485 A	20150407	KR20157003432	20130605
MX2015000281 A1	20150410	MX20150000281	20130605
TW201413060 A	20140401	TW20130122773	20130626
US2014018432 AA	20140116	US20130910231	20130605
WO14011331 A1	20140116	WO2013US44222	20130605
WO14011331 A4	20140410	WO2013US44222	20130605
ZA201500979 A	20170125	ZA20150000979	20150211

Priority:

US20120670642P 20120712 US20130910231 20130605 WO2013US44222 20130605

Probable Assignee: HERCULES INC

Assignee(s): (std): HERCULES INC ; SOLENIS TECHNOLOGIES CAYMAN LP ; SOLENIS TECHNOLOGIES CAYMAN L P ; SOLENIS TECH CAYMAN L P

Assignee(s): SHAROYAN DAVIT E ; SOLENIS TECHNOLOGIES LP ; BANK OF AMERICA NA COLLATERAL AGENT AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH COLLATERAL AGENT AG AS

Inventor(s): (std): SHAROYAN DAVIT E ; DAVIT E SHAROYAN

Agent(s): SPRUSON AND FERGUSON; MOFFAT AND CO; ESTUDIO FEDERICO VILLASECA Y CIA; HOFFMANN EITLE; HERMAN MICHAEL J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN 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 MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW