

Search history

Search PN=(WO2015087156) (Results 1)
1:

Search [SP]: 1. a method for treating large water bodies for recreational uses, including large artificial excavated or floating structures with bottoms comprising flexible membranes, wherein the method comprises: (a) applying an effective amount of a flocculant to water in the water body to maintain turbidity of the water below 2 ntu, wherein the flocculant flocculates suspended solids in the water into particles that settle to the bottom of the water body(b) monitoring to determine the color of the bottom of the water body, receiving information regarding the color of the bottom and activating a mobile suctioning device to adjust the color within a set limit by suctioning settled particles from the bottom of the water body(c) operating the mobile suctioning device to maintain an increase in a black component of the color of the bottom below 30 percent based on the cmyk scale, wherein the mobile suction device moves on the bottom of the water body and suctions a portion of water from the bottom of the water body containing settled particles, wherein the device is capable of moving and cleaning at a rate of 10,000 m² per 24 hours, and wherein operating the mobile suctioning device does not re-suspend more than 30 percent of the settled particles in the area on the bottom of the water body cleaned by the mobile suction device(d) filtering the water suctioned by the mobile suction device and returning the filtered water to the water body, wherein the water suctioned by the mobile suction device does not exceed 10 percent of the total water volume of the water body in a 24 hour interval and(e) operating a degreasing system to maintain a surface water layer having less than about 20 mg/l of floating greases within a top-most 1 cm of the surface water layer, wherein greases from the surface water layer flow into the degreasing system and are removed by a separation unit comprising a degreaser, and the water that has passed through the degreaser is returned to the water body. 2. the method of claim 1, further comprising adding a chlorine-based additive to maintain at least a minimum free residual chlorine level in the water, where the minimum free residual chlorine level is at least the value resulting from the following equation: minimum free residual chlorine level=(0.3-0.002(wqi-100))ppm. 3. the method of claim 1, wherein the water body has a surface area of at least 7,000 m³. 4. the method of claim 1, wherein the flexible membrane has a thickness between about 0.1 mm and about 5 mm. 5. the method of claim 1, wherein the flexible membrane comprises rubber, plastic, teflon, low density polyethylene, high density polyethylene, polypropylene, nylon, polystyrene, polycarbonate, polyethylene terephthalate, polyamides, pvc, acrylics, or a combination thereof. 6. the method of claim 1, wherein the suctioning device is supported over brushes to avoid damaging the bottom of the artificially constructed structures. 7. the method of claim 1, wherein the suctioning device is a self-propelled device. 8. the method of claim 1, wherein the suctioning device allows concentration of suctioning power at suction points distributed along the bottom of the device, therefore providing higher suctioning efficiency and avoiding re-suspending the settled materials and debris found on the bottom. 9. the method of claim 1, further comprising receiving information regarding the turbidity of the water and applying flocculants to adjust the turbidity below a set limit. 10. the method of claim 1, wherein the turbidity is determined by empirical methods, analytical methods, or algorithms based on experience. 11. the method of claim 1, wherein a control system activates the application of additives, the operation of the suctioning device, and the operation of the degreaser system. 12. the method of claim 11, wherein the control system is an automated system that processes information. 13. the method of claim 11, wherein the control system may be operated on site. 14. the method of claim 11, wherein the control system may be operated remotely through an interne connection or other information-exchange system. 15. the method of claim 11, wherein the control system receives information regarding the turbidity of the water and activates the flocculant application to adjust the turbidity within a set limit. 16. the method of claim 1, wherein the flocculant comprises synthetic polymers comprising quaternary ammonium-containing polymers or polycationic multivalent cations aluminum salts calcium oxide calcium hydroxide ferrous sulphate ferric chloride polyacrylamide sodium aluminate sodium silicate natural agents comprising chitosan, gelatin, guar gum, alginates, or moringa seeds starch derivatives or combinations thereof. 17. the method of claim 1, wherein flocculant comprises algaecide properties. 18. the method of claim 1, wherein the flocculant is dispensed into the water by a chemical application system comprising at least one selected from the group consisting of injectors, sprinklers, dispensers, manual application, and piping. 19. the method of claim 2, further comprising receiving information regarding the free residual chlorine level in the water. 20. the method of claim 2, wherein the minimum free residual chlorine level is determined by empirical methods, analytical methods, or algorithms based on experience. 21. the method of claim 2, wherein a control system activates the chlorine-based additive application. 22. the method of claim 2, wherein the chlorine-based additive is dispensed into the water by a chemical application system comprising at least one selected from the group consisting of injectors, sprinklers, dispensers, manual application, and piping. 23. the method of claim 18, wherein the chemical application system is disposed to provide homogeneity to the water body, wherein water quality between two different locations differs less than 20 percent for periods of time longer than 4 hours. 24. the method of claim 1, further comprising receiving information regarding the color of the bottom of the water body and activating the mobile suctioning device to adjust the color within a set limit by suctioning settled particles from the bottom of the water body. 25. the method of claim 1, wherein the color is determined by an empirical methods, sensory methods, analytical methods, or algorithms based on experience. 26. the method of claim 1, wherein the color of the bottom of the structure is determined using a colorimeter. 27. the method of claim 1, wherein operation of the mobile suctioning device is activated based on an amount of impurities that have settled onto the bottom of the water body and affect the color of the bottom, the amount of settled impurities corresponding to an amount of turbidity removed from the water. 28. the method of claim 11, wherein the control system receives information regarding the color of the bottom of the water body and activates the operation of a suctioning device to adjust the color within a set limit. 29. the method of claim 11, wherein the control system receives information regarding amount of floating greases and activates the operation of the degreasing system to adjust the amount of floating greases within a set limit. 30. the method of claim 1, wherein the degreasing system comprises skimmers to provide the surface water flow into the separation unit. 31. the method of claim 1, wherein the degreaser comprises an overflow apparatus for separating oils and greases from the water. 32. the method of claim 1, wherein the degreasing system comprises one or more screens for retaining large debris and a degreaser for separating water from oils and greases through overflow. 33. the method of claim 1, wherein the degreasing system comprises a filter. 34. the method of claim 1, wherein the method is applied to a bathing zone within the water body. 35. the method of claim 2, wherein the minimum residual chlorine level is maintained continuously within the water body. 36. the method of claim 2, wherein the minimum residual chlorine level is maintained for a period of time within the water body. 37. the method of claim 2, wherein the minimum residual chlorine level is maintained when the water body is in use. 38. the method of claim 1, wherein the impurities comprise suspended solids, organic matter, inorganic matter, bacteria, or algae. 39. the method of claim 1, wherein the water body comprises an excavated structure having a bottom and walls to contain the water and a non-permeable flexible membrane covering the bottom of the water body, the bottom having a slope that is about 20 percent or less and the walls having a slope that is greater than about 45 percent. 40. the method of claim 39, wherein soil forming the bottom of the excavated structure is compacted soil, the soil being compacted to at least 80 percent of its relative density (rd) if a passage rate of the soil forming the bottom of the excavated structure through n degrees 200 mesh is less than 12 percent. (Results 0)

Search fn=(59511367:820 or 58640880:420 or 56715092:320 or 41015574:315 or 52121704:290 or 45919591:285 or 57413357:280 or 53122838:275 or 30649775:275 or 50538305:270 or 42509550:260 or 33150515:260 or 50933396:245 or 34669110:240 or 20662879:240 or 51722506:235 or 50551669:235 or 63664344:230 or 63912108:220 or 49608174:220 or 33332238:220 or 32712815:220 or 59134958:210 or 55310232:210 or 53855621:210 or 49239023:210 or 42925413:210 or 34172785:210 or 57467132:205 or 43632637:205 or 41618993:205 or 65498384:200 or 57309813:200 or 50830158:200 or 47930977:200 or 43728241:200 or 42972025:200 or 32222966:200 or 56392761:195 or 63835472:190 or 62004110:190 or 58123975:190 or 44072915:190 or 30130326:190 or 29957232:190 or 55052383:185 or 65965488:180 or 64773560:180 or 64049764:180 or 61842324:180 or 59511374:180 or 55759059:180 or 55715705:180 or 50951579:180 or 50888012:180 or 50551269:180 or 48887961:180 or 48749894:180 or 41733114:180 or 36071851:180 or 30111215:180 or 28115310:180 or 28041313:180 or 27907763:180 or 53751055:175 or 50438487:175 or 48432864:175 or 46183769:175 or 31338013:175 or 66574872:170 or 66515661:170 or 64271034:170 or 61432853:170 or 59778212:170 or 59354021:170 or 57701611:170 or 57262886:170 or 56964281:170 or 54511948:170 or 51756870:170 or 49768568:170 or 49714555:170 or 46802480:170 or 43212496:170 or 42901434:170 or 42511023:170 or 40985659:170 or 34399931:170 or 32360852:170 or 29088114:170 or 3512515:170 or 62043529:165 or 58505684:165 or 58178905:165 or 52171832:165 or 48148075:165 or 46628887:165 or 41696394:165 or 33276951:165 or 32658403:165) (Results 100)

Search PROCESS AND (TREATING WATER) (Results 2096)
4:

Search 4 AND (LARGE ARTIFICIAL EXCAVATED) (Results 0)
5:

Search 4 AND (MOBILE SUCTION) (Results 4)
6:

Title: SUSTAINABLE METHOD AND SYSTEM FOR **TREATING WATER** BODIES AFFECTED BY BACTERIA AND MICROALGAE AT LOW COST

Abstract: Source: US2012024796A A sustainable method and system for treating and maintaining bodies of water at low cost for low density recreational use is disclosed. A system of the invention generally includes at least one containing means, at least one coordination means, at least one chemical application means, at least one non-intrusive **mobile suction** means, and at least one filtration means. The coordinating means can receive information regarding water quality parameters that are controlled, and can timely activate the **processes** necessary to adjust the water quality parameters within their respective limits. The disclosed methods and system filter only a small fraction of the total water volume, up to 200 times less per day than the flow filtered by conventional swimming pool filtration systems. The disclosed methods and system also use less chemicals, up to 100 times less than conventional swimming pool water treatment systems. The methods and system of the present invention can be used to treat recreational water bodies affected by bacteria and microalgae and provide sustainable methods for producing water that complies with bacteriological and physicochemical requirements for recreational water, as set forth by governmental regulatory agencies such as the Environmental Protection Agency (EPA), for bathing with full body contact.

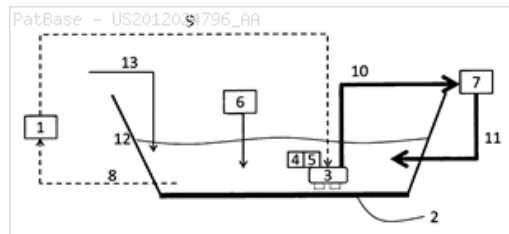
Classifications:

International (IPC 8-9): B01D21/01 B01D21/02 B01D21/30 B01D24/02 B01D35/00 B01D36/00 B01D37/04 C02F C02F1/00 C02F1/44 C02F1/46 C02F1/50 C02F1/52 C02F1/56 C02F1/66 C02F1/68 C02F1/76 C02F1/78 C02F103/42 C02F5/00 C02F5/08 C02F5/10 C02F5/12 C02F5/14 C02F9/00 C02F9/04 C02F9/08 E04H4/12 E04H4/16 (Advanced/Invention); C02F1/00 C02F1/44 C02F1/50 C02F1/66 C02F1/78 C02F103/00 C02F103/02 C02F103/42 C02F5/14 E04H4/12 (Advanced/Non-invention); C02F1/00 C02F1/68 C02F5/00 E04H4/00 (Core/Invention); C02F E04H (Subclass/Invention)

CPC: E04H4/1281 C02F1/008 C02F1/442 C02F1/444 C02F1/004 C02F1/66 C02F1/76 C02F1/766 C02F1/78 C02F5/14 C02F2103/007 C02F2103/42 C02F2209/04 E04H4/1209 C02F1/50

European: C02F1/00D6 C02F1/76 E04H4/12A E04H4/12B M02F1/50 M02F1/66 M02F1/76 M02F1/76G M02F1/78 M02F103/00H M02F103/42 M02F209/04 M02F5/14

US: 1/1 210/141 210/141S 210/143 210/167.11 210/203 210/203S 210/696 210/696S 210/697 210/709 210/721 210/739 210/739S 210/742 210/743 210/747.5 210/753 210/753S 210/754 210/754S 210/760 210/760S 210/764 210/764S



Family:

Publication number	Publication date	Application number	Application date
AP201307114 A0	20130930	AP20130007114	20110912
AP3745 A	20160731	AP20130007114	20110912
AR085679 AA	20131023	AR2012P101090	20120329
AU2011363517 AA	20121004	AU20110363517	20110912
AU2016202416 AA	20160512	AU20160202416	20160415
BR112013024625 A2	20161213	BR20131124625	20110912
CA2830178 AA	20130912	CA20112830178	20110912
CA2830178 C	20150317	CA20112830178	20110912
CL2013002603 A1	20131213	CL20130002603	20130910
CL52479 B	20160505	CL20130002603	20130910
CN102730878 A	20121017	CN201110328741	20111021
CN102730878 B	20150812	CN201110328741	20111021
CN104944627 A	20150930	CN201510202271	20111021
CO6852054 A2	20140130	CO20130218140	20130913
CR20130465 A	20140207	CR20130000465	20130913
CU24169 B	20160331	CU20120000044	20120315
CY1118779 T1	20170712	CY20171100370T	20170324
DK2675759 T3	20170410	DK20110862244T	20110912
DOP2011000322 A	20120131	DO20110000322	20111021
EA201391167 A1	20140331	EA20130091167	20110912
EA201790138 A1	20170428	EA20170090138	20110912
ECSP13012908 A	20131129	EC2013SP12908	20130930
EP2675759 A1	20131225	EP20110862244	20110912
EP2675759 A4	20140312	EP20110862244	20110912
EP2675759 B1	20161228	EP20110862244	20110912
EP3153474 A1	20170412	EP20160198841	20110912
ES2621005 T3	20170630	ES20110862244T	20110912
GE201606515 B	20160725	GE20110013229	20110912
HK1175452 A1	20160324	HK20130102280	20130222
HR20170473 T1	20170616	HR20170000473	20170322
IL228459 A0	20131231	IL20110228459	20110912
IL228459 A1	20161031	IL20110228459	20110912
INO2952KN2013 A	20131108	IN2013KN02952	20131008
JP2014514146 T2	20140619	JP20140502537T	20110912
JP5859636 B2	20160210	JP20140502537T	20110912
KR101579068 B1	20151221	KR20137025803	20110912
KR20130135325 A	20131210	KR20137025803	20110912
LT2675759 T	20170612	LT20110862244T	20110912
MA35055 B1	20140403	MA20130036350	20131014
MX2013011152 A1	20131202	MX20130011152	20110912
MX344899 B	20170109	MX20140012965	20110912
MY160689 A	20170315	MY20110005103	20111021
NZ614043 A	20151224	NZ20110614043	20110912
NZ714579 A	20170526	NZ20110714579	20110912
PE04512014 A1	20140416	PE20130002146	20110912
PT2675759 T	20170404	PT20110862244T	20110912

RS20120135 A1	20131031	RS20120000135	20120329
RS55785 B1	20170731	RS20170000297	20110912
SG10201609932Q A1	20170127	SG20161009932	20110912
SG194011 A1	20131129	SG20130073218	20110912
SI2675759 T1	20170731	SI20110031138	20110912
SK201100113 A5	20121002	SK20110000113	20111024
TH132847 A	20140423	TH20131005438	20110912
TN2011000537 A1	20130524	TN20110000537	20111024
TR201704060 T4	20170421	TR20170004060T	20110912
UA114069 C2	20170425	UA20110012483	20111024
US2012024796 AA	20120202	US20110136458	20110801
US2013213866 AA	20130822	US20130856387	20130403
US8465651 BB	20130618	US20110136458	20110801
US9062471 BB	20150623	US20130856387	20130403
UY33990 A1	20120928	UY20120033990	20120329
WO12134527 A1	20121004	WO2011US51244	20110912
ZA201306553 A	20131127	ZA20130006553	20130830

Priority:

AU20110363517	20110912	AU20160202416	20160415	CN201110328741	20111021
EP20110862244	20110912	NZ20110614043	20110912	TN20110000537	20111024
US20110469548P	20110330	US20110136458	20110801	WO2011US51244	20110912
US20130856387	20130403				

Probable Assignee: CRYSTAL LAGOONS CURACAO BV

Assignee(s): (std): CRYSTAL LAGOONS CORP LLC ; CRYSTAL LAGOONS CURACAO BV ; CRYSTAL LAGOONS CURACAO KAYA BV ; FISCHMANN T FERNANDO ; KENNEDY 907012 FLOORVITACURASANTIAGO CHILE ; FISCHMANN T FERNANDO BANJAMIN ; FERNANDO FISCHMANN T

Assignee(s): KENNEDY 9070 ; CRYSTAL LAGOONS LLC CORP ; FISCHMANN T

Inventor(s): (std): BANJAMIN FISCHMANN T FERNANDO ; FERNANDO BENJAMIN FISCHMANN ; FERNANDO FISCHMANN T ; FISCHMANN T FERNANDO ; FISCHMANN TORRES FERNANDO BENJAMIN ; TORRES FERNANDO BENJAMIN FISCHMANN ; T FERNANDO FISCHMANN ; FISCHMANNT FERNANDO BENJAMIN ; FISCHMANN T FERNANDO BANJAMIN ; FISCHMANN FERNARDO BENJAMIN ; FERNANDO FISCHMANN TORRES ; FISCHMANN FERNANDO T ; FISCHMANN FERNANDO BENJAMIN

Inventor(s): FISCHMANN T ; KENNEDY 9070 ; FERNANDO T FISCHMANN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; ROBIC; ESTUDIO CLARKE MODET CO LIMITADA; SILVANA MARIA LOPEZ DIAZ; CARVAJAL Y URQUIJO ISABEL; FRICK ROBERT; CARVAJAL Y ISABEL; SIMON LAVIE; DREW AND NAPIER LLC; TOLGA CAYLAK; MERCHANT AND GOULD P C; MERCHANT AND GOULD PC; KOWALCHYK KATHERINE M

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: METHOD AND SYSTEM FOR **TREATING WATER** USED FOR INDUSTRIAL PURPOSES

Abstract: Source: US2012024794A A low cost method and system for **treating water**, which will be used in an industrial **process**, is provided. A system of the invention generally includes at least one containing means, at least one coordination means, at least one chemical application means, at least one **mobile suction** means, and at least one filtration means. The coordination means can control the necessary **processes** depending on the system needs (e.g., water quality or purity). The method and system of the invention purifies the water and eliminates suspended solids without the need of filtering the totality of the water volume, but only filtering a small fraction of up to 200 times less than the flow filtered by a conventional water treatment filtration system.

Classifications:

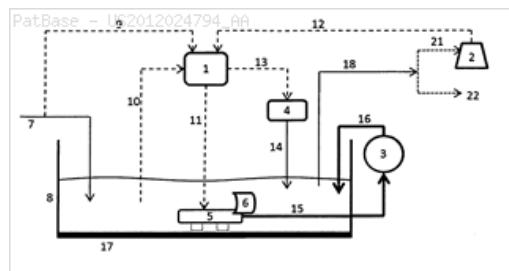
International (IPC 8-9): B01D21/01 B01D21/02 B01D21/30 B01D36/00 B01D36/04 B01D61/04 C02F C02F1/00 C02F1/20 C02F1/28 C02F1/44 C02F1/50 C02F1/52 C02F1/56 C02F1/64 C02F1/66 C02F1/68 C02F1/70 C02F1/72 C02F1/76 C02F1/78 C02F101/20 C02F103/02 C02F103/08 C02F103/10 C02F5/00 C02F5/08 C02F5/10 C02F5/12 C02F5/14 C02F9/00 C02F9/02 C02F9/04 (Advanced/Invention); C02F1/24 C02F1/44 C02F1/50 C02F1/52 C02F1/56 C02F1/72 C02F1/76 C02F1/78 C02F101/20 C02F103/02 C02F103/08 C02F103/10 C02F5/08 (Advanced/Non-invention); B01D21/00 B01D61/00 C02F1/00 C02F5/00 C02F9/00 (Core/Invention);

B01D C02F (Subclass/Invention)

CPC: C02F1/004 C02F1/008 B01D21/30 C02F1/24 C02F1/441 C02F1/442 C02F1/444 C02F1/5236 C02F1/56 C02F1/722 C02F1/76 C02F1/766 C02F1/78 C02F5/08 C02F2101/203 C02F2101/206 C02F2103/02 C02F2103/08 C02F2103/10 C02F2209/02 C02F2209/04 C02F2209/10 C02F2209/11 C02F2303/185 Y02W10/33 Y02W10/37 C02F1/50

European: B01D21/30 C02F9/00 M02F1/00T M02F1/28 M02F1/44B M02F1/44D M02F1/467B M02F1/52F M02F1/56 M02F1/76G M02F1/78 M02F101/20B M02F101/20D M02F209/02 M02F209/03 M02F209/04 M02F5/08

US: 1/1 210/141 210/141S 210/170.09 210/665 210/709 210/709S 210/712 210/712S 210/721 210/742 210/747.9



Family:

Publication number	Publication date	Application number	Application date
AP201307116 A0	20130930	AP20130007116	20110912
AP3746 A	20160731	AP20130007116	20110912
AR085764 AA	20131023	AR2012P101092	20120329
AU2011363516 AA	20121004	AU20110363516	20110912
AU2011363516 BB	20160505	AU20110363516	20110912
AU2016202093 AA	20160428	AU20160202093	20160404
CA2830175 AA	20130912	CA20112830175	20110912
CA2830175 C	20151229	CA20112830175	20110912
CL2013002605 A1	20131213	CL20130002605	20130910
CL52481 B	20160505	CL20130002605	20130910
CN103608296 A	20140226	CN201180069717	20110912
CN103608296 B	20150527	CN201180069717	20110912
CN104857747 A	20150826	CN201510293931	20110912
CO6852052 A2	20140130	CO20130218133	20130913
CR20130466 A	20140210	CR20130000466	20130913
CU20130120 A7	20131029	CU20130000120	20130829
CY1118775 T1	20170712	CY20171100372T	20170324
DK2691340 T3	20170403	DK20110862833T	20110912
DK2705885 T3	20170410	DK20130193275T	20110912
DOP2013000202 A	20131130	DO20130000202	20130910
EA026795 B1	20170531	EA20130091166	20110912
EA201391166 A1	20140331	EA20130091166	20110912
EA201690700 A1	20160729	EA20160090700	20110912
ECSP13012907 A	20131129	EC2013SP12907	20130930
EP2691340 A1	20140205	EP20110862833	20110912
EP2691340 A4	20140312	EP20110862833	20110912
EP2691340 B1	20161228	EP20110862833	20110912
EP2705885 A1	20140312	EP20130193275	20110912
EP2705885 B1	20161228	EP20130193275	20110912
EP2705885 B9	20170531	EP20130193275	20110912
EP3147015 A1	20170329	EP20160198869	20110912
EP3156111 A1	20170419	EP20160198842	20110912
ES2620677 T3	20170629	ES20110862833T	20110912
ES2630231 T3	20170818	ES20130193275T	20110912
GE20156316 B	20150710	GE20110013228	20110912
GT201300223 A	20150325	GT20130000223	20130925
HK1190695 A1	20160520	HK20140103668	20140416
HK1213215 A1	20160630	HK20160101070	20140416
HR20170474 T1	20170616	HR20170000474	20170322
HR20170477 T1	20170616	HR20170000477	20170322
IL228460 A0	20131231	IL20110228460	20110912
IL228460 A1	20170131	IL20110228460	20110912
IL239846 A0	20150831	IL20110239846	20110912
IL239846 A1	20160831	IL20110239846	20110912
IN02953KN2013 A	20131108	IN2013KN02953	20131008
JP2014097494 A2	20140529	JP20130246758	20131128
JP2014512263 T2	20140522	JP20140502536T	20110912
JP5676048 B2	20150225	JP20140502536T	20110912
JP6026392 B2	20161116	JP20130246758	20131128
KR101579067 B1	20151221	KR20137025797	20110912

KR20130135324 A	20131210	KR20137025797	20110912
LT2691340 T	20170612	LT20110862833T	20110912
LT2705885 T	20170612	LT20130193275T	20110912
MA35053 B1	20140403	MA20130036348	20131014
MX2013011198 A1	20131216	MX20130011198	20110912
MY153481 A	20150216	MY20130003259	20110912
NZ614058 A	20151224	NZ20110614058	20110912
NZ714673 A	20170428	NZ20110714673	20110912
PE04162014 A1	20140403	PE20130002144	20110912
PH2015500470 A	20150413	PH20150500470	20150304
PH2015500470 B	20150413	PH20150500470	20150304
PT2691340 T	20170404	PT20110862833T	20110912
PT2705885 T	20170404	PT20130193275T	20110912
RS55781 B1	20170731	RS20170000326	20110912
RS55824 B1	20170831	RS20170000314	20110912
RU2013145461 A	20150420	RU20130145461	20131011
RU2534091 C1	20141127	RU20130142002	20110912
RU2606599 C2	20170110	RU20130145461	20131011
SG193638 A1	20131129	SG20130073309	20110912
SG2014015168 A1	20140926	SG20140015168	20110912
SI2691340 T1	20170731	SI20110031139	20110912
SI2705885 T1	20170731	SI20110031137	20110912
TH132848 A	20140423	TH20131005440	20110912
TN2013000376 A1	20150120	TN20130000376	20130923
TR201704080 T4	20170421	TR20170004080T	20110912
TR201704085 T4	20170421	TR20170004085T	20110912
UA108925 C2	20150625	UA20130100657	20110912
US2012024794 AA	20120202	US20110136474	20110801
US2013306532 AA	20131121	US20130948619	20130723
US8518269 BB	20130827	US20110136474	20110801
US9051193 BB	20150609	US20130948619	20130723
UY33991 A1	20120928	UY20120033991	20120329
WO12134526 A1	20121004	WO2011US51236	20110912
ZA201306541 A	20131127	ZA20130006541	20130830

Priority:

AU20110363516	20110912	AU20160202093	20160404	EP20110862833	20110912
JP20140502536	20110912	CN201180069717	20110912	EP20130193275	20110912
US20110469537P	20110330	US20110136474	20110801	WO2011US51236	20110912
US20130948619	20130723	JP20140502536T	20110912	NZ20110614058	20110912

Probable Assignee: CRYSTAL LAGOONS CURACAO BV

Assignee(s): (std): CRYSTAL LAGOONS CORP LLC ; CRYSTAL LAGOONS CURACAO BV ; CRYSTAL LAGOONS CURACAO KAYA BV ; FERNANDO FISCHMANN T ; FISCHMANN T FERNANDO

Assignee(s): CRYSTAL LAGOONS LLC CORP ; FISCHMANN T

Inventor(s): (std): FISCHMANN FERNANDO T ; T FERNANDO FISCHMAN ; T FERNANDO FISCHMANN ; FISCHMANN T FERNANDO FT ; FISCHMANN T FERNANDO ; FISCHMANN T ; FERNANDO FISCHMANN T ; FISCHMANN TORRES FERNANDO BENJAMIN ; FISCHMANN FERNANDO

Inventor(s): FISCHMANN TFERNANDO FT ; FERNANDO T FISCHMANN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; ROBIC; ESTUDIO CLARKE MODET CO LIMITADA; SILVANA MARIA LOPEZ DIAZ; CARVAJAL Y URQUIJO ISABEL; FRICK ROBERT; CARVAJAL Y ISABEL; SIMON LAVIE; DREW AND NAPIER LLC; TOLGA CAYLAK; MERCHANT AND GOULD PC; KOWALCHYK KATHERINE M

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: METHOD AND SYSTEM FOR THE SUSTAINABLE COOLING OF INDUSTRIAL PROCESSES

Abstract: Source: US2012091069A A method and system for **treating water**, and using the **treated water** for the cooling of industrial **processes** is disclosed. The water is treated and stored in a large container or artificial lagoon, has high clarity and high microbiological quality. A system of the invention generally includes a containing means, such as a large container or artificial lagoon, a coordination means, a chemical application means, a **mobile suction** means, and a filtration means. The coordination means monitors and controls the **processes** in order to adjust water quality parameters within specified limits. The large container or artificial lagoon can act as a heat sink, absorbing waste heat from the industrial cooling **process**, thus creating thermal energy reservoirs in a sustainable manner, which can be later used for other purposes. The method and system can be used in any industrial cooling system with any type of water available, including fresh water, brackish water, and seawater.

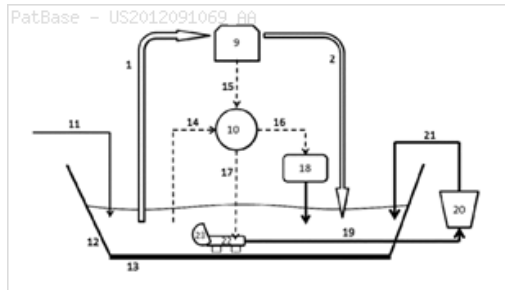
Classifications:

International (IPC 8-9): B01D17/12 B01D21/00 B01D21/01 B01D21/02 B01D21/24 B01D21/30 B01D24/00 B01D35/02 B01D35/14 B01D36/00 B01D36/04 C02F1/00 C02F1/44 C02F1/50 C02F1/52 C02F1/54 C02F1/56 C02F1/64 C02F1/66 C02F1/68 C02F1/72 C02F1/76 C02F1/78 C02F103/02 C02F103/42 C02F5/08 C02F5/10 C02F5/12 C02F5/14 C02F9/00 C02F9/02 C02F9/04 E01H E01H1/08 F28B9/04 (Advanced/Invention); C02F1/00 C02F1/52 C02F1/56 C02F1/72 C02F1/78 C02F103/02 C02F103/42 C02F5/08 C02F5/14 (Advanced/Non-invention); B01D36/00 C02F1/00 C02F5/00 C02F9/00 E01H1/00 E01H1/08 F28D15/00 (Core/Invention); C02F E01H (Subclass/Invention)

CPC: C02F1/5281 B01D35/14 B01D36/04 C02F1/008 C02F1/44 C02F1/56 C02F1/78 C02F5/08 C02F9/00 C02F2103/023 C02F2103/42 C02F2209/02 C02F2209/04 C02F2209/11 Y02W10/37 B01D24/00 B01D35/02 C02F1/442 C02F1/444 C02F1/52 C02F1/72

European: C02F9/00 M02F1/00T M02F1/44 M02F1/72 M02F1/78 M02F209/02 M02F209/04 M02F209/11 M02F5/08

US: 1/1 210/182 210/184 210/198.1 210/198.100S 210/742 210/746 210/758 210/764

**Family:**

Publication number	Publication date	Application number	Application date
AP201307115 A0	20130930	AP20130007115	20110912
AR085763 AA	20131023	AR2012P101091	20120329
AU2011363515 AA	20121004	AU20110363515	20110912
AU2011363515 BB	20160616	AU20110363515	20110912
AU2013203513 AA	20130502	AU20130203513	20130410
AU2013203513 BB	20160721	AU20130203513	20130410
CA2830097 AA	20130912	CA20112830097	20110912
CA2830097 C	20151215	CA20112830097	20110912
CL2013002604 A1	20131213	CL20130002604	20130910
CL52480 B	20160505	CL20130002604	20130910
CN103608522 A	20140226	CN201180069721	20110912
CN103608522 B	20150527	CN201180069721	20110912
CN104925994 A	20150923	CN201510321341	20110912
CN104925994 B	20170905	CN201510321341	20110912
CO6852053 A2	20140130	CO20130218136	20130913
CR20130467 A	20140207	CR20130000467	20130913
CU20130119 A7	20131029	CU20130000119	20130828
CY1118773 T1	20170712	CY20171100381T	20170328
CY1118776 T1	20170712	CY20171100383T	20170328
DE602011033949 D1	20170216	DE201160033949T	20110912
DK2691576 T3	20170410	DK20110862058T	20110912
DK2708516 T3	20170403	DK20130193273T	20110912
DOP2013000203 A	20131031	DO20130000203	20130910
EA026221 B1	20170331	EA20130091168	20110912
EA201391168 A1	20140331	EA20130091168	20110912
EA201690699 A1	20160729	EA20160090699	20110912
ECSP13012906 A	20131129	EC2013SP12906	20130930
EP2691576 A1	20140205	EP20110862058	20110912
EP2691576 A4	20140319	EP20110862058	20110912
EP2691576 B1	20161228	EP20110862058	20110912
EP2708516 A1	20140319	EP20130193273	20110912
EP2708516 B1	20161228	EP20130193273	20110912
ES2621087 T3	20170630	ES20130193273T	20110912
ES2623460 T3	20170711	ES20110862058T	20110912
GE20156317 B	20150710	GE20110013230	20110912
GT201300222 A	20150325	GT20130000222	20130925
HK1194445 A1	20160429	HK20140107780	20140730
HK1210133 A1	20160415	HK20150110966	20140730
HR20170475 T1	20170616	HR20170000475	20170322
HR20170476 T1	20170616	HR20170000476	20170322
IL228458 A0	20131231	IL20110228458	20110912
IL242327 A0	20151231	IL20110242327	20110912
IN02951KN2013 A	20131108	IN2013KN02951	20131008
JP2014097493 A2	20140529	JP20130246757	20131128
JP2014510630 T2	20140501	JP20140502535T	20110912
JP5710832 B2	20150430	JP20140502535T	20110912
JP5819385 B2	20151124	JP20130246757	20131128
KR101587934 B1	20160122	KR20137025811	20110912
KR20130135327 A	20131210	KR20137025811	20110912

KR20150103312 A	20150909	KR20157022556	20110912
LT2691576 T	20170612	LT20110862058T	20110912
LT2708516 T	20170612	LT20130193273T	20110912
MA35054 B1	20140403	MA20130036349	20131014
MX2013011197 A1	20131216	MX20130011197	20110912
MX346211 B	20170310	MX20140006134	20110912
MY153632 A	20150303	MY20130003258	20110912
NZ614048 A	20151224	NZ20110614048	20110912
NZ714653 A	20170428	NZ20110714653	20110912
PE04872014 A1	20140416	PE20130002145	20110912
PH2015500505 A	20150511	PH20150500505	20150309
PH2015500505 B	20150511	PH20150500505	20150309
PL2708516 T3	20170831	PL20130193273T	20110912
PT2691576 T	20170404	PT20110862058T	20110912
PT2708516 T	20170405	PT20130193273T	20110912
RS55826 B1	20170831	RS20170000315	20110912
RS55833 B1	20170831	RS20170000325	20110912
RU2013145462 A	20150420	RU20130145462	20131011
RU2013145462 A	20150420	RU20130145462	20110912
RU2534788 C1	20141210	RU20130142003	20110912
RU2564362 C2	20150927	RU20130145462	20110912
SG194020 A1	20131129	SG20130073333	20110912
SG2014015192 A1	20140428	SG20140015192	20110912
SI2691576 T1	20170731	SI20110031135	20110912
SI2708516 T1	20170731	SI20110031136	20110912
TH134048 A	20140527	TH20131005439	20110912
TN2013000375 A1	20150120	TN20130000375	20130923
TR201704244 T4	20170421	TR20170004244T	20110912
TR201704247 T4	20170421	TR20170004247T	20110912
UA107881 C2	20150225	UA20130100658	20110912
US2012091069 AA	20120419	US20110195695	20110801
US2013264261 AA	20131010	US20130861262	20130411
US8454838 BB	20130604	US20110195695	20110801
US9120689 BB	20150901	US20130861262	20130411
UY33989 A1	20120928	UY20120033989	20120329
WO12134525 A1	20121004	WO2011US51229	20110912
ZA201306540 A	20131127	ZA20130006540	20130830

Priority:

AU20110363515	20110912	AU20130203513	20130410	EP20110862058	20110912
JP20140502535	20110912	CN201180069721	20110912	EP20130193273	20110912
US20110469526P	20110330	US20110195695	20110801	WO2011US51229	20110912
US20130861262	20130411	JP20140502535T	20110912	NZ20110614048	20110912

Probable Assignee: CRYSTAL LAGOONS CURACAO BV

Assignee(s): (std): CRSYTAL LAGOONS CURACAO BV ; CRYSTAL LAGOONS CORP LLC ; CRYSTAL LAGOONS CURACAO B V ; CRYSTAL LAGOONS CURACAO BV ; CRYSTAL LAGOONS CURACAO KAYA BV ; FISCHMANN T FERNANDO ; KENNEDY 907012 FLOORVITACURASANTIAGO CHILE ; FISCHMANN T FERNANDO BENJAMIN

Assignee(s): KENNEDY 9070 ; KRYSTAL LAGUNA CURACAO BV ; CRYSTAL LAGOONS LLC CORP ; FISCHMANN T

Inventor(s): (std): FISCHMANN ; FISCHMANN FERNANDO ; FISCHMANN FERNANDO T ; FISCHMANN T FERNANDO ; FISCHMANN T FERNANDO BENJAMIN ; FISCHMANN T FERNANDO FT ; FERNANDO FISCHMANN T ; FISCHMANN TORRES FERNANDO BENJAMIN ; T FERNANDO FISCHMANN

Inventor(s): KENNEDY 9070 ; FERNANDO T FISCHMANN ; FISCHMANN TFERNANDO FT ; FISCHMANN T

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; ROBIC; ESTUDIO CLARKE MODET CO LIMITADA; SILVANA MARIA LOPEZ DIAZ; CARVAJAL Y URQUIJO ISABEL; FRICK ROBERT; CARVAJAL Y ISABEL; DREW AND NAPIER LLC; TOLGA CAYLAK; MERCHANT AND GOULD P C; MERCHANT AND GOULD PC; KOWALCHYK KATHERINE M

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: FLOATING LAKE SYSTEM AND METHODS OF **TREATING WATER** WITHIN A FLOATING LAKE

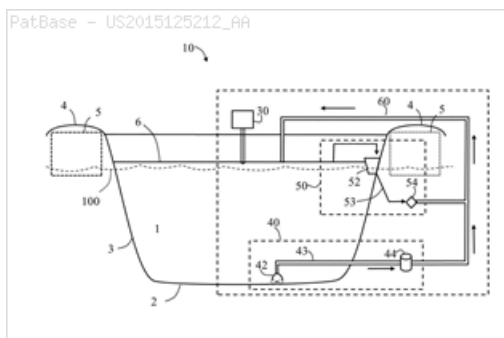
Abstract: Source: US2015125212A The present invention relates to floating lakes and to the treatment of the water in such lakes. The present invention further relates to large floating lakes that can be installed within a natural or artificial water body to improve water conditions that are unsuitable for recreational uses. The floating lake can be provided with a chemical application system; a filtration system including a **mobile suctioning** device and filters; a skimmer system, and optionally a coordination system.

Classifications:

International (IPC 8-9): B01D21/00 B01D21/01 B63B35/00 C02F C02F1/00 C02F1/44 C02F1/52 C02F1/54 C02F1/56 C02F1/72 C02F1/76 C02F1/78 C02F103/00 C02F103/02 C02F103/42 C02F11/12 C02F9/00 C02F9/02 C02F9/04 E02B15/00 E02B15/04 E02B15/06 E02B15/08 E02B3/00 E04H E04H4/00 E04H4/04 E04H4/12 (Advanced/Invention); C02F1/00 C02F1/52 C02F1/72 C02F103/00 C02F103/02 C02F103/42 (Advanced/Non-invention); C02F E04H (Subclass/Invention)

CPC: E02B15/04 E02B15/06 E02B15/0814 E02B15/0807 E02B15/045 E02B15/041 C02F9/00 C02F1/004 C02F1/008 C02F1/442 C02F1/444 C02F1/72 C02F2103/023 C02F2103/42 C02F2201/006 C02F2209/001 C02F2209/005 C02F2209/03 C02F2209/04 C02F2209/06 C02F2209/07 C02F2209/11 C02F2209/36 C02F2209/44 C02F2303/10 C02F1/5245 C02F1/56 C02F1/722 C02F1/76 C02F1/78 C02F1/4672 Y02W10/30 C02F1/001 B01D21/0012 B01D21/01 C02F2001/007 C02F1/52 C02F2103/007 E04H4/0012 E04H4/1209

US: 210/712 405/63



Family:

Publication number	Publication date	Application number	Application date
AP201609059 A0	20160229	AP20160009059	20141104
AR098320 AA	20160526	AR2014P104167	20141105
AU2014347797 AA	20150514	AU20140347797	20141104
CA2919950 AA	20160129	CA20142919950	20141104
CL2016000725 A1	20161007	CL20160000725	20160329
CN105705464 A	20160622	CN201480053380	20141104
CO16112017 A2	20160510	CO20160112017	20160502
CO7600658 A2	20160510	CO20160112017	20160502
CR20160071 A	20160712	CR20160000071	20160212
CU20160025 A7	20160930	CU20160000025	20160225
DOP2016000046 A	20160315	DO20160000046	20160209
EA201690417 A1	20160729	EA20160090417	20141104
EA201790372 A1	20170731	EA20170090372	20141104
EP3066056 A2	20160914	EP20140841384	20141104
HK1222635 A1	20170707	HK20160110751	20160909
IL243820 A0	20160421	IL20140243820	20141104
IN201637007714 A	20160701	IN201637007714	20160304
JP2017500203 T2	20170105	JP20160545069T	20141104
KR20160033759 A	20160328	KR20167004333	20141104
MA38906 A1	20160930	MA20160038906	20160311
MX2016002298 A1	20160615	MX20160002298	20141104
NZ716959 A	20170526	NZ20140716959	20141104
PE06262016 A1	20160625	PE20160000262	20141104
PH2016500297 A	20160516	PH20160500297	20160212
SG11201601064T A1	20160330	SG20161101064	20141104
US2015125212 AA	20150507	US20140531395	20141103
US2017191237 AA	20170706	US20170462534	20170317
UY35822 A1	20141231	UY20140035822	20141105
WO15068042 A2	20150514	WO2014IB02991	20141104
WO15068042 A3	20150820	WO2014IB02991	20141104
ZA201601028 A	20170222	ZA20160001028	20160215

Priority:

US20130531395 20131103 US20130900308P 20131105 US20140531395 20141103
WO2014IB02991 20141104 US20170462534 20170317

Probable Assignee: CRYSTAL LAGOONS CURACAO BV

Assignee(s): (std): CRYSTAL LAGOONS CURACAO BV ; FISCHMANN FERNANDO BENJAMIN

Assignee(s): FISCHMANN FERNANDO BENJAMIN

Inventor(s): (std): BENJAMIN FISCHMANN FERNANDO ; FERNANDO BENJAMIN FISCHMANN ; FISCHMANN FERNANDO BENJAMIN ; FISCHMANN TORRES FERNANDO BENJAMIN ; FISCHMANN TORRES FERNANDO BENJAMIN ; FISCHMANN FERNANDO BENJAMIN FB

Inventor(s): FISCHMANN FERNANDO BENJAMIN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; ROBIC; ESTUDIO CLARKE MODET AND CO CHILE LIMITADA; CAROLINA MERCEDES DAZA MONTALVO; CARVAJAL Y URQUIJO ISABEL

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