

Search history

Search PN=(WO2015/113575) (Results 1)

1:

Search [SP]: field of the invention[0001] the present invention relates to a treatment device, which is adapted for destructing micro-organisms in a gaseous or liquid medium to be treated, in particular to a treatment device, which is configured for a through-flow of the medium through a treatment substance, wherein micro-organisms included in the medium are destructed (destroyed) by an interaction with the treatment substance. furthermore, the present invention relates to a method of treating a gaseous or liquid medium for destructing micro-organisms included therein. applications of the invention comprise water-cleaning, e. g. for disinfection purposes, environmental tasks or providing drinking water, or air flow cleaning, e. g. in an air conditioning device.technical background of the invention[0002] conventional treatment methods for removing micro-organisms in water typically are based on one of the following two approaches. firstly, it is generally known to kill the micro-organisms, e. g. with an uv irradiation or using chemical substances. the micro-organisms are destructed by the impact of the high-energy photons or the deadly effect of the chemical substance. despite of the high efficiency of those conventional processes for killing the micro-organisms, they have substantial disadvantages in terms of technical complexity of an irradiation unit, which necessarily requires a power supply, and the contamination of the water with the chemical substance, respectively. typically, chemical treatment of water does not provide drinking water, but rather requires further cleaning steps removing the chemical substance.[0003] a second approach for removing micro-organisms from water is based on a filtering process. the water is flown through a filter substance, wherein the micro-organisms are adhered to the filter substance, e. g. by mechanical filtering and/or by a chemical adsorption to the filter substance. examples of filtering techniques are described e. g. in u.s. pat. no. 6,818,130 b1, wherein microporous filter media, e. g. nonwoven microfiber glass web or charge-modified media, are used for capturing, killing or deactivating the micro-organisms. another widely used technique is based on filtering water in a sand layer or in a glass granulate layer (gb 2 413 124 a). the glass granulate used in gb 2 413 124 a comprises glass pellets having a sub-angular shape, i.e. being rounded at the edges, and having a typical size above 1 mm. the glass pellets have a mechanical filtration effect and provide an adsorption on the surfaces thereof. they act as a surface catalytic filter media. further filtering techniques are described in us 2007/0007213 a1 and us 2002/0104810 a1.[0004] the conventional filter-based treatment methods have inherent disadvantages in terms of the need of a relatively high flow pressure as well as the requirement of periodical filter substance regeneration. sand or glass granulate filters or even thin membrane filters require a relatively high pressure of the water when flowing through the filter material. providing a complex pressure unit can be avoided only if extended layers of the filter material, e. g. in the earth, are used. the regeneration is necessary as the filter material will be clogged by the micro-organisms after a certain period of use.objective of the invention[0005] the objective of the invention is to provide an improved treatment device, which is adapted for destructing micro-organisms in a gaseous or liquid medium to be treated, wherein the treatment device is capable of avoiding disadvantages of conventional techniques. in particular, the disadvantages of both conventional destructing and filtering approaches are to be avoided. in particular, the objective of the invention is to provide a treatment device, which has a reduced complexity, has a high efficiency, does not require additional treatments and/or can be implemented with reduced or without consumption of electrical power. furthermore, the objective of the invention is to provide an improved method of treating a gaseous or liquid medium for destructing micro-organisms included in the medium, avoiding disadvantages of conventional techniques.summary of the invention[0006] the above objectives are solved correspondingly with a treatment device and a method of treating a gaseous or liquid medium, comprising the features of the independent claims, respectively. advantageous embodiments and applications of the invention are defined in the dependent claims.[0007] according to a first general aspect of the invention, the above objective is solved by a treatment device, which is adapted for mechanically destructing (destroying, deactivating) micro-organisms in a gaseous or liquid medium by a mechanical contact of the micro-organisms with a treatment substance. the treatment substance has an inner hollow structure allowing a through-flow of the medium to be treated. furthermore, the treatment substance is contained in an enclosure accommodating the treatment substance and accommodating the flow of the medium through the inner hollow structure of the treatment substance. the enclosure is completely or partially filled with the treatment substance. according to the invention, the inner hollow structure of the treatment substance has internal edges (sharp edges), which are arranged for destructing the micro-organisms by the mutual mechanical contact thereof. the internal edges are configured such that micro-organisms flowing with the medium through the treatment substance are destructed, in particular cut, torn and/or punctured by the internal edges. the internal edges are cutting edges, as they have a capability of dissecting (fragmenting, cutting) the micro-organisms.[0008] according to a second general aspect of the invention, the above objective is solved by a method of treating a gaseous or liquid medium including micro-organisms, wherein the treatment device according to the above first aspect is used. according to the invention, the method comprises a step of flowing (pressing) the medium through the treatment substance. furthermore, the method comprises a step of destructing the micro-organisms by a dissection thereof at the cutting edges of the inner hollow structure of the treatment substance.[0009] treating the medium generally comprises a destruction of living micro-organisms included in the medium, i. e. changing the micro-organisms such that they are no longer viable, by the mechanical interaction of the micro-organisms with the internal cutting edges of the treatment substance. in particular, the inventive treatment comprises a mechanical disinfection of the water or air. thus the treatment substance is also called destruction mass.[0010] the inventor has found, that flow forces (shear forces) are created in the medium by flowing it through the hollow structure. in particular by the effect of the enclosure encapsulating the treatment substance, the flow forces have a main direction parallel to the flow direction through the enclosure. micro-organisms included in the medium hit the cutting edges of the hollow structure, where portions of the micro-organisms, like flagella of bacteria, are cut and/or the cell membrane of the micro-organisms is destroyed. additionally, the flow forces include turbulent forces, which are created by the effect of the cutting edges. the destructing grinding and milling effect of the edges is enhanced by the turbulent forces. the medium flow has the additional effect that the residual parts of the micro-organisms are carried through the treatment substance, i. e. the treatment substance as such substantially has no filtering effect.[0011] as a main advantage of the invention, the micro-organism destruction and thus the removal of potentially living organisms from gaseous or liquid media is obtained by the flow of the medium through the treatment device only. the medium to be treated can be free of chemical substances disintegrating the micro-organisms. the destructing effect of the edges is supported by the inner pressure of micro-organism cells, which can be e. g. 2 at in bacteria. the provision of complex irradiation devices or chemical substances can be avoided. furthermore, the invention does not require an additional shaking or vibrating device for creating flow forces in the medium. furthermore, the treatment device can be operated with a long-term stability.[0012] as a further advantage, the medium cleaning effect of the treatment device is not restricted to specific micro-organisms, but rather obtainable with any living micro-organisms, which can be included in gaseous or liquid media. generally, the term "micro-organism" covers any single cell or multicellular organism having a size below 50 micro m, including prokaryotic cells, like bacteria and archaea, or eukaryotic cells, like protozoa, fungi, algae, green algae or microscopic animals. preferably, bacteria, in particular escherichia coli and legionella bacteria and/or algae are eliminated from water. the term "micro-organism" includes also viruses.[0013] according to a preferred embodiment of the invention, the treatment substance comprises particles arranged in the enclosure. the particles provide a packed bed, which forms the hollow structure of the treatment substance in the enclosure. the cutting edges of the hollow structure are provided by the surface shape of the particles. using sharp edged particles as the treatment substance has particular advantages in terms of adapting the shape of the treatment substance to the inner space of the enclosure and the optional cleaning of the treatment substance after a certain period of use. commercially available particles can be used, or they can be manufactured by milling treatment substance material.[0 (Results 7)

Search [SP]: treatment device and method for destructing micro-organisms in gaseous or liquid media a treatment device (100), which is adapted for destructing micro-organisms (2) in a gaseous or liquid medium (1) to be treated, comprises a treatment substance (10) having an inner hollow structure and being contained in an enclosure (20) accommodating a flow of the medium (1) through the inner hollow structure, wherein the inner hollow structure has internal cutting edges (12) which are arranged for destructing the micro-organisms (2) by a mechanical contact of the micro-organisms (2) with the cutting edges (12) of the hollow structure. furthermore, a method of treating a gaseous or liquid medium (1) including micro-organisms (2) is described. (Results 85)

Search TAC=(3 and helical) (Results 2)

4:

Search TAC=(water and treatment and(helical screw)) (Results 0)

5:

Search TAC=(water and treatment and (helical screw)) (Results 0)

6:

Search TAC=(water and treatment and (helical screw)) (Results 76)

7:

Search 7 and clean* (Results 19)

8:

Title: SOLIDIFICATION OF RADIOACTIVE WASTE EFFLUENTS

Abstract: Source: US4409137A A process and apparatus for solidifying radioactive waste liquid containing dissolved and/or suspended solids is disclosed. The process includes chemically treating for pH adjustment and precipitation of solids, concentrating solids with a thin-film evaporator to provide liquid concentrate containing about 50 percent solids, and drying the concentrate with heated mixing apparatus. The heated mixing apparatus includes a heated wall and working means for shearing dried concentrate from internal surfaces and subdividing dry concentrate into dry, powdery particles. The working means includes a rotor and helical means for positively advancing the concentrate and resulting dry particles from inlet to outlet of the mixing apparatus. The dry particles may also be encapsulated in a matrix material. Entrained particles in the vapor stream from the evaporator and mixer are removed in an integral particle separator and the vapor is subsequently condensed and may be recycled upstream of the thin-film evaporator. A section of the mixer may be used for mixing dry particles with the matrix material in a continuous drying and mixing sequence. A section of the mixer also may be used for mixing the treating chemical with the waste liquid.

Classifications:

International (IPC 8-9): B01F13/10 G21F9/00 G21F9/04 G21F9/06 G21F9/08 G21F9/14 G21F9/16 G21F9/30 (Advanced/Invention); B01F13/00 G21F9/00 G21F9/06 G21F9/16 G21F9/30 (Core/Invention)

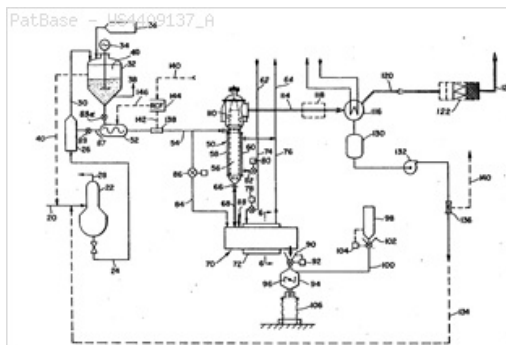
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G21F9/06 G21F9/08 G21F9/14

European: B01F13/10C2 G21F9/06 G21F9/08 G21F9/14 G21F9/30B L01F215/00A118

US: 159/11.1 159/47.3 159/5 159/DIG.12 252/628 252/632 422/159 588/11 588/20 588/3 588/5 588/6 976/DIG.379 976/DIG.380 976/DIG.385

**Family:**

Publication number	Publication date	Application number	Application date
BE888306 A1	19811007	BE19811010195	19810407
BR8102063 A	198111013	BR19810002063	19810406
CA1172774 A1	19840814	CA19810374993	19810408
CH640663 A	19840113	CH19810002304	19810406
DE3114060 A1	19820318	DE19813114060	19810407
ES501164 A1	19830801	ES19810501164	19810407
ES8308135 A1	19831101	ES19810501164	19810407
FI811056 A	19811010	FI19810001056	19810406
FI811056 L	19811010	FI19810001056	19810406
FR2482357 A1	19811113	FR19810006949	19810407
FR2482357 B1	19850208	FR19810006949	19810407
GB2074367 A1	19811028	GB19810010656	19810406
GB2074367 B2	19830602	GB19810010656	19810406
IT1138271 A	19860917	IT19810020968	19810407
IT8120968 A0	19810407	IT19810020968	19810407
JP1486229 C3	19890314	JP19810043079	19810324
JP57004599 A2	19820111	JP19810043079	19810324
JP63035000 B4	19880713	JP19810043079	19810324
NL8101703 A	19811102	NL19810001703	19810407
SE8102219 A	19811010	SE19810002219D	19810407
SE8102219 L	19811010	SE19810002219	19810407
US4409137 A	19831011	US19810247446	19810325
ZA8102300 A	19820428	ZA19810002300	19810407

Priority:

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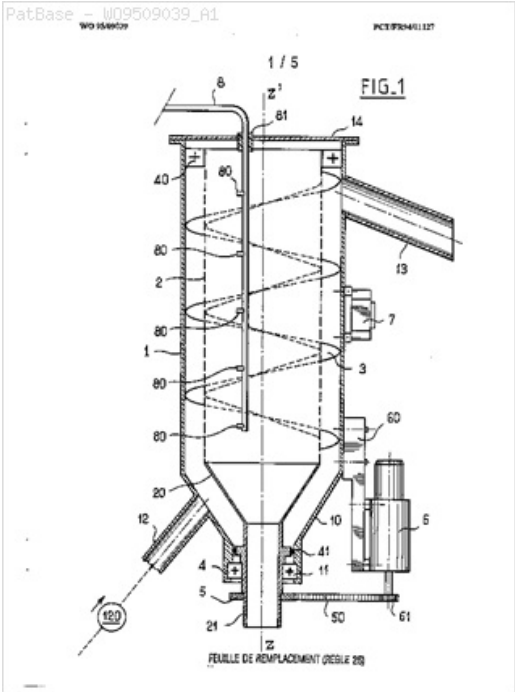
Probable Assignee: BELGONUCLEAIRE SA**Assignee(s):** (std): BELGONUCLEAIRE NV ; BELGONUCLEAIRE SA**Assignee(s):** BERUGONUKUREERU SA ; CORDIER JEAN PIERRE ; MERGAN LEO ; BELGONUCLEAIRE S A ; BELGONUCLEAIRE ; BELGONUCLEAIRE N V TE BRUSSEL**Inventor(s):** (std): CORDIER J ; CORDIER J P ; CORDIER JEAN PIERRE ; JAN PIEERU KORUDEIE ; JEAN PIERRE CORDIER ; JIJAN PIEERU KORUDEIE ; MERGAN L ; MERGAN L M ; MERGAN LEO ; MERGAN LEO M ; REO EMU MERUGAN ; LEO MERGAN**Inventor(s):** M MERGAN LEO ; L M MERGAN ; L MERGAN ; LEO M MERGAN ; LEO M MERGAN ET JEAN PIERRE CORDIER ; J P CORDIER**Agent(s):** SWABEY OGILVY RENAULT

Title: DEVICE FOR THICKENING SLURRY

Abstract: Device comprising an outer tubular body (1) with a vertical axis (ZZ'); a tubular filtering grid (2) mounted coaxially within the stationary body (1), and rotated about said vertical axis (ZZ'); means (12) for feeding the slurry to be treated into the base of the device, between the grid (2) and the stationary body (1); a worm screw (3) mounted on the outer side of the grid (2) and capable of forcing the confined slurry to rise again between the grid (2) and the body (1) to the upper part of the device, while the liquid phase is removed from the outer side to the inner side through the grid (2); means (21; 13) for discharging the liquid phase at the base of the grid (2) and discharging the thickened slurry at the top of the device; and an incline (8) for washing and declogging the tubular grid (2), vertically disposed within the latter. Application in the **treatment** of slurry.

Classifications:

International (IPC 8-9): B01D33/03 (Advanced/Invention)
International (IPC 1-7): B01D29/11 B01D29/66 B01D29/94
B01D33/03 B01D33/04 B01D33/073 B01D33/50 B01D36/02
C02F11/12
CPC: B01D33/03
European: B01D33/03



Family:

Publication number	Publication date	Application number	Application date
FR2710548 A1	19950407	FR19930011764	19930928
FR2710548 B1	19951229	FR19930011764	19930928
WO9509039 A1	19950406	WO1994FR01127	19940927

Priority:

FR19930011764 19930928

Probable Assignee: LOCHOU JEAN LOUIS

Assignee(s): (std): AUTRET MARCEL ; LOCHOU FERNAND ; LOCHOU JEAN LOUIS

Inventor(s): (std): AUTRET MARCEL ; MARCEL AUTRET

Designated states: AT BE CA CH DE DK ES FR GB GR HU IE IT LU MC NL PL PT SE US

Title: Evacuation system for the prevention of explosions from volcanoes

Abstract: Source: GB2362410A An evacuation system for the prevention of explosions from volcanos and supervolcanoes includes an array of convergent-divergent evacuation tubes (21) each positioned with a magma entry port within the magma. Each tube (21) acts to draw the magma through a central throat in a nozzle (22), in to an internal passage, where the explosive part of the magma vaporises. A flow of coolant from passages (23) cools the magma flow to reduce the tendency of the magma to stick to the tube (21). The magma and coolant then proceed up the tube (21) to be transported by ducts (39) to a [treatment](#) plant.

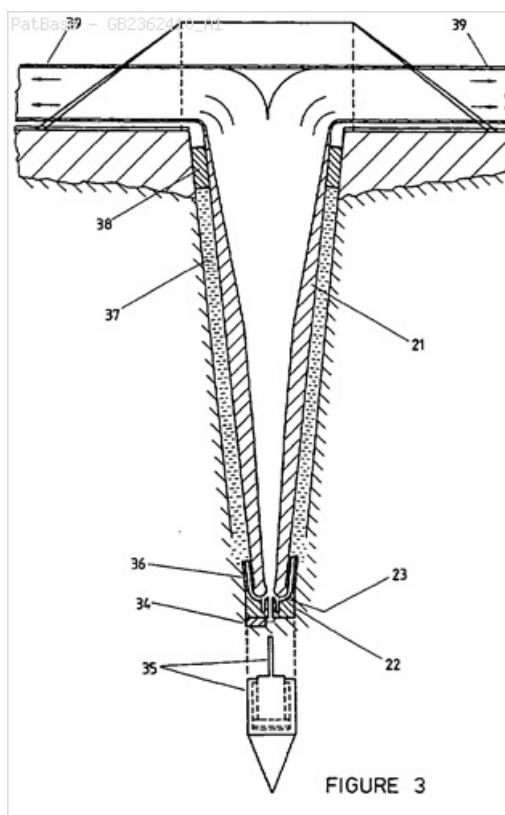
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International (IPC 8-9): E21B33/02 E21B43/00 (Advanced/Invention);
E21B33/02 E21B43/00 (Core/Invention)

International (IPC 1-7): E21F5/0 E21F5/0 E21F7/0

CPC: E21B33/02 E21B43/00

European: E21B33/02 E21B43/00



Family:

Publication number	Publication date	Application number	Application date
GB200121244 A0	200111024	GB20010021244	20010901
GB2362410 A1	20011121	GB20010021244	20010901
GB2362410 B2	20020410	GB20010021244	20010901

Priority:

GB20010021244 20010901

Probable Assignee: STRATFORD BRIAN S

Assignee(s): (std): STRATFORD BRIAN S ; STRATFORD BRIAN STAPLETON

Assignee(s): BRIAN STAPLETON STRATFORD

Inventor(s): (std): STRATFORD BRIAN STAPLETON

Inventor(s): BRIAN STAPLETON STRATFORD

Title: METHOD AND APPARATUS FOR MIXING ADDITIVES WITH SLUDGE IN A POWERED LINE BLENDER

Abstract: Source: US2003178375A A powered in-line blender for mixing additives to sludges or other flowable liquid/solid mixtures. The blender is particularly useful in a method of blending polymer to municipal sewage sludges to improve the dewatering characteristics, and thus improving total costs for dewatering, handling, and disposal.

Classifications:

International (ipc 8-9): B01D37/03 B01F7/06 B01F7/08

C02F11/14 (Advanced/Invention);

B01F15/00 B01F7/00 (Advanced/Non-invention);

B01D37/00 B01F7/02 (Core/Invention);

B01F15/00 B01F7/00 (Core/Non-invention)

International (ipc 1-7): B01D37/00 B01F7/02 B01F7/04 B01F7/08
C02F1/52

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B01F15/00883 B01F2215/0052

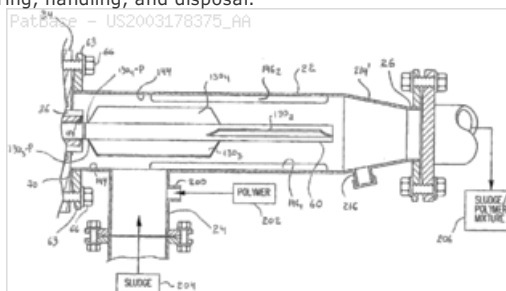
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L01F7/00Y8K10

US: 210/205 210/205S 210/709 210/732 210/738 210/768 36/631.8

36/632.592 366/168.1 366/194 366/279 366/279S 366/318 366/325.92



Family:

Publication number	Publication date	Application number	Application date
US2003178375 AA	20030925	US20020107016	20020325
US2005082232 AA	20050421	US20040923260	20040820
US6808305 BB	20041026	US20020107016	20020325
US7014775 BB	20060321	US20040923260	20040820

Priority:

US20020107016 20020325 US20040923260 20040820

Probable Assignee: SHARPE MIXERS INC A WASHINGTON CORPORATION

Assignee(s): (std): SHARPE MIXERS INC ; SHARPE PHIL E

Assignee(s): SHARPE MIXERS INC A WASHINGTON CORPORATION ; DINNISON JAY G ; DRURY STEVEN ; SHARPE MIXERS INC (A WASHINGTON CORPORATION) ; SHARPE MIXERS INC A WASHINGTON CORP

Inventor(s): (std): DINNISON JAY G ; DRURY STEVEN ; SHARPE PHIL E

Inventor(s): DINNISON JAY ; SHARPE PHIL

Agent(s): R REAMS GOODLOE JR AND R REAMS GOODLOE PS; R REAMS

Title: METHOD AND APPARATUS FOR PRODUCING LIQUID HYDROCARBONS FROM COAL

Abstract: Source: US2010151293A A method and apparatus for producing liquid hydrocarbons from coal that involves subjecting the coal to a pyrolysis reaction within a novel pyrolysis sub-system that includes a plurality of pyrolysis units, with each pyrolysis unit comprising two side-by-side retorts. To increase the amount of feedstock that can be handled within the required resident time, the plurality of pyrolysis units are uniquely arranged in tandem. The apparatus includes, in advance of the pyrolysis subsystem, an ash removal station wherein the ash is removed from the coal, a crushing station wherein the ash free coal is crushed to produce a crushed coal, and a desulfurizing steam station wherein the sulfur is substantially removed from the crushed coal. The apparatus further includes a closed fractionizing tower that is operably associated with the pyrolysis subsystem and into which the pyrolysis products from the pyrolysis subsystem pass. Within the closed fractionizing tower, the stream of pyrolysis condensate flowing from the pyrolysis subsystem is separated into various products that become the subject of further hydrogenation and treating. Additionally, the last pyrolysis unit of the pyrolysis subsystem is designed to drop the final residual material, or carbon char, from the pyrolysis subsystem into a quench and dry system and then into a **water** bath in a manner to maintain the oxygen-free environment. The collected char is then dried, bagged and forwarded to the fixed carbon market.

Classifications:

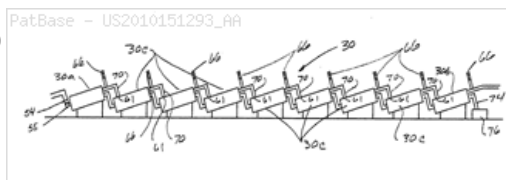
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C07C29/00 C10G1/00 F02B43/00 H01M8/18 (Core/Invention)

CPC: F22B3/00 Y02B90/12 Y02B90/14 Y02B90/16 Y02E50/12 C10G2300/1003 C10G2300/1011 C10B39/04 C10K1/002 C10K1/004 C10K1/024 C10K1/34 C10K3/02 F02C3/28 F05D2220/75 H01M2250/10 H01M2250/402 H01M8/00 C10B47/44 C10B57/02 C10G1/02 H01M2250/405 Y02T10/16 C10G1/10 Y02P20/129 Y02P30/20

European: C10B47/44 C10B57/02 C10G1/02 H01M8/00 T01M250/40D Y02B90/18 Y02E60/50

US: 208/425 208/425S 422/187 429/19 429/426 429/426P 518/702 518/702S 568/895 568/895S 60/39.12 60/39.120S

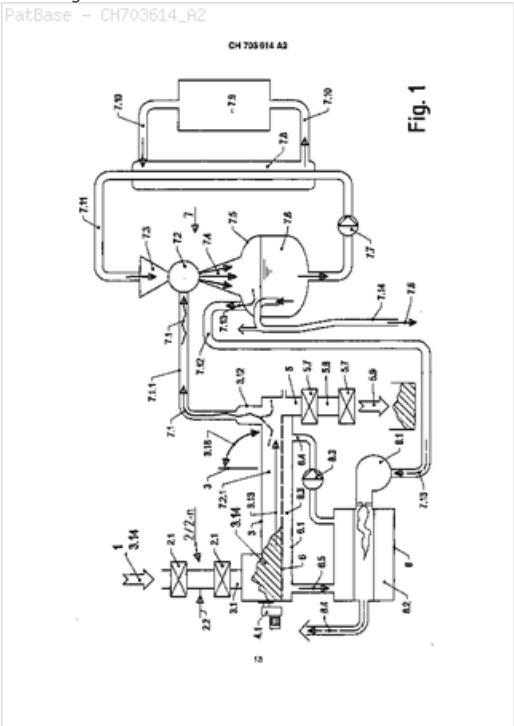


Title: KONTINUIERLICHES VERFAHREN UND VORRICHTUNG ZUR AUFBEREITUNG VON MATERIALIEN AUF BASIS VON KOHLENWASSERSTOFF ZU BRENNGASEN UND FLUESSIGKRAFTSTOFFEN.

Abstract: Source: CH703614B Verfahren und Vorrichtung zur Aufbereitung von Materialien auf Basis von Kohlenwasserstoffen wie, ligninhaltiger Biomasse, Kunststoffen, organischen Fluessigkeiten, erdoelhaltigen mineralischen Gemengen und Haushaltsmuell, zu verwertbaren Energietraegern in gasfoermiger, fluessiger und fester Form, wobei anorganische Reststoffe und Verschmutzungen als Schlackenbestandteile ausgeschieden werden.

Classifications:

International (IPC 8-9): C10G3/00 (Advanced/Invention); C10B53/00 (Advanced/Non-invention)
CPC: Y02E50/14 Y02E50/32 C10G2300/802 C10G2300/807 C10G1/02 C10B47/44 C10B53/00 C10B53/02 C10B53/06 C10B53/07 C10G1/10 C10G3/40 C10G2300/1003 C10G2300/1011 Y02P20/143 Y02P30/20
European: C10B47/44 C10B53/00 C10B53/02 C10B53/06 C10B53/07 C10G1/02 C10G1/10 C10G3/40 M10G300/10B



Family:

Publication number	Publication date	Application number	Application date
CH703609 A2	20120229	CH20110000443	20110316
CH703614 A2	20120229	CH20100001315	20100817
CH703614 B1	20160415	CH20100001315	20100817

Priority:

CH20100001315 20100817 CH20110000443 20110316

Probable Assignee: WASTOGY AG

Assignee(s): (std): KOSIOR EDWARD ; WASTOGY AG ; WIDMER CHRISTIAN

Assignee(s): CHRISTIAN WIDMER ; EDWARD KOSIOR

Inventor(s): (std): WIDMER CHRISTIAN ; RUDOLF HARTMANN ; MERCIER ALAIN ; KOSIOR EDWARD ; HARTMANN RUDOLF ; EDWARD KOSIOR ; CHRISTIAN WIDMER ; ALAIN MERCIER

Title: HEAT EXCHANGER USING NON-PURE **WATER** FOR STEAM GENERATION

Abstract: Source: US2013224104A A process and a device are described for producing high purity and high temperature steam from non-pure **water** which may be used in a variety of industrial processes that involve high temperature heat applications. The process and device may be used with technologies that generate steam using a variety of heat sources, such as, for example industrial furnaces, petrochemical plants, and emissions from incinerators. Of particular interest is the application in a thermochemical hydrogen production cycle such as the Cu-Cl Cycle. Non-pure **water** is used as the feedstock in the thermochemical hydrogen production cycle, with no need to adopt additional and conventional **water** pre-treatment and purification processes. The non-pure **water** may be selected from brackish **water**, saline **water**, seawater, used **water**, effluent treated **water**, tailings **water**, and other forms of **water** that is generally believed to be unusable as a direct feedstock of industrial processes. The direct usage of this **water** can significantly reduce **water** supply costs.

Classifications:

International (IPC 8-9): B01J7/00 C01B3/04 C01B3/06 C02F1/04 F22B1/06 F22B1/18 F22B37/26 F22B7/02

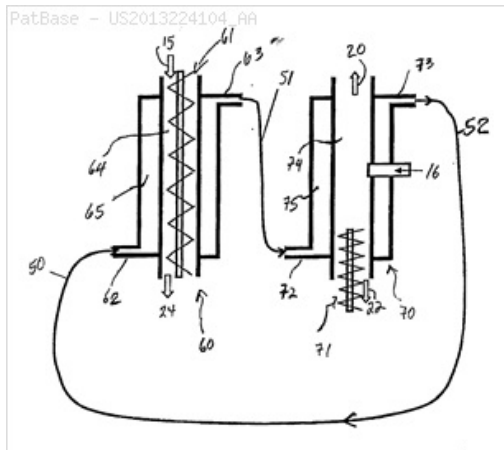
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US: 122/367.1 122/7R 422/162 423/648.1



Family:

Publication number	Publication date	Application number	Application date
CA2810068 AA	20130301	CA20112810068	20110330
US2013224104 AA	20130829	US20110820435	20110330
WO12027823 A1	20120308	WO2011CA00342	20110330

Priority:

US20100379981P 20100903 US20110820435 20110330 WO2011CA00342 20110330

Probable Assignee: NATERER GREG

Assignee(s): (std): NATERER GREG ; SECNK EDWARD ; WANG ZHAOLIN

Inventor(s): (std): NATERER GREG ; SECNK EDWARD ; WANG ZHAOLIN

Agent(s): NORTON ROSE CANADA SENCRL SRL LLP; NORTON ROSE CANADA LLP S E N C R L S R L ET AL

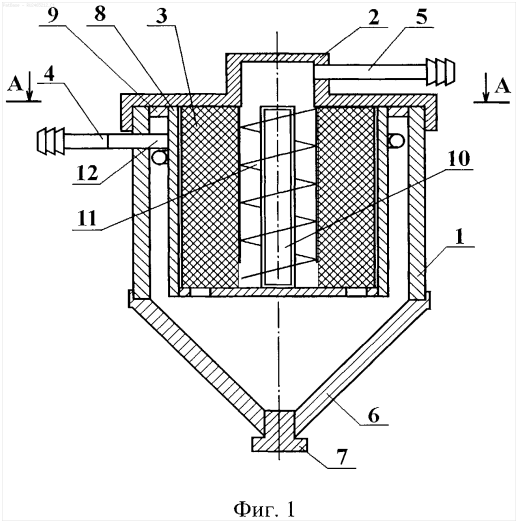
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ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

Title: **WATER TREATMENT** APPARATUS

Abstract: Source: RU2465212C FIELD: process engineering. SUBSTANCE: invention relates to machine building and may be used for **water treatment**. Proposed device comprises housing with detachable plate-like cover with its bottom directed upward, filtration element, inlet union, outlet branch pipe fitted in said cover, and bell-shaped settler provided with drain plug fitted at its bottom, its narrow section being directed downward. Cylindrical perforated barrel is fitted inside the housing. Housing top section has a ring with outer surface in contact with housing inner surface and inner surface in contact with cylindrical barrel outer surface. Filtration element is shaped to cylinder with axial bore and accommodated inside cylindrical barrel. UV-lamp and **helical screw**-shaped turbuliser are arranged inside filtration element along its axis. Note here that **helical screw** ID equals that of UV-lamp while screw OD equal filtration element ID. Inlet union is connected with coiled tube arranged in annular clearance between housing inner surface and cylindrical barrel outer surface. Said tube is provided with branch pipes arranged at acute angle thereto along coiling path. EFFECT: higher quality of **water cleaning** and decontamination. 2 dwg

Classifications:

International (IPC 8-9): C 02F1/32 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
RU2465212 C1	20121027	RU20110119462	20110513

Priority:

RU20110119462 20110513

Probable Assignee: FEDERAL NOE G OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA UL JANOVSKAJA G S

Assignee(s): (std): FEDERAL NOE G OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA UL JANOVSKAJA G S

Assignee(s): FEDERAL NOE GOSUDARSTVENNOE OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA UL JANOVSKAJA GOSUDARSTVENNAJA SEL SKOKHOZJAJSTVENNAJA AKADEMIJA

Inventor(s): (std): KURDJUMOV VLADIMIR IVANOVICH ; TVERDUNOV PAVEL SERGEEVICH

Title: DEVICE FOR TRANSPORTING-**CLEANING** KORENEBUL'BOPLODIV (Machine translation)

Abstract: Source: UA107619C Device for transporting-**cleaning** korenebul'boplodiv consists of frame, podaval'nogo transporter, chop brush set obliquely **cleaning** unit that forms in the transversal plane, formed by driving cylindrical val'cami that pairwise rotating towards each other, inside of which is at an acute angle inside the activator, which consists of the console drive shaft with tapered screw, as well as the vivantazuval'nogo transporter. End of the conical screw activator is directed down the console drive shaft connected with the frame through the spring compression and navivka conical screw also directed downwards. At the bottom of the **cleaning** unit opposite the end of conical **helical screw** conveyor is installed with the direction of movement down the working branches, which creates with val'cami **water treatment** unit at the bottom of the corresponding clearance, its lower end is stationary. Top driven by the end of the compression spring with frame is associated.

Classifications:

International (IPC 8-9): A01D17/06 A01D33/08 B07B13/16 B08B1/04 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
UA107619 C2	20150126	UA20130009186	20130722

Priority:

UA20130009186 20130722

Title: SISTEMA PRODUTIVO PARA EXTRACAO, TRATAMENTO E ENVASE DE OLEO DE CAFE ARABICA PRODUCTIVE SYSTEM FOR EXTRACTION, **TREATMENT** AND BOTTLING OF CAFE ARABICA OIL (Machine translation)

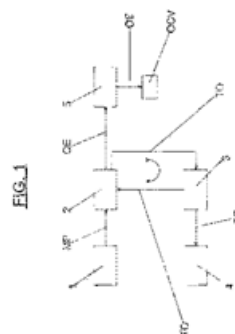
Abstract: Source: BR102014025970A RESUMO "SISTEMA PRODUTIVO PARA EXTRACAO, TRATAMENTO E ENVASE DE OLEO DE CAFE ARABICA" Compreende a presente patente de invencao um sistema produtivo para extracao, tratamento e envase de oleo de cafe verde (OCV), do tipo "Arabica", composto de: uma unidade de recebimento (1) de materia prima (MP) contendo moega de recebimento (11), elevador (12), roscas de alimentacao (13) e silo pulmao (14); uma unidade de prensagem de graos (2) contendo moega primaria (21) sistema de dosagem (22), rosca de alimentacao (23), prensa (24), bandeja de pre-filtragem (25) e tanque de recebimento de oleo (26); uma unidade de retroalimentacao (3) de "torta" (TO), contendo transportador de rosca (31), elevador de canecas (32), moega secundaria (33) e transportadores com roscas "siloflex" (34 e 35); uma unidade de expedicao de "torta" (4), contendo transportador com rosca "siloflex" (41), silo pulmao de armazenamento de "torta" (42), rampa de escoamento (43), moega de expedicao (44), transportador com rosca "siloflex" (45) e transpaletreira (46); uma unidade de tratamento (5) do oleo extraido (OE) contendo bombas hidraulicas (51) com mangueiras transferidoras, reator de tratamento de oleo (52), filtro-prensa (53), com bomba de engrenagens alimentadora (54) e bica central (55), acoplado ao tanque de repouso (55), tanque de estocagem final (56), bomba de engrenagens transferidora (57), modulo de pesagem (58) com balanca e envasadora automatica. Sistema este, onde a materia prima (graos de cafe verde do tipo "Arabica") e prensada resultando no oleo extraido que e tratado e a "torta" retroalimentada e expedida quando nao ha mais oleo a ser extraido da mesma. SUMMARY "PRODUCTIVE SYSTEM FOR EXTRACTION, **TREATMENT** AND BOTTLING CAFE ARABICA OIL" Understands the patent present a production system for extraction, processing and packaging of green coffee of oil (OCV) of the "Arabica", consist of: a receiving unit (1) raw material (MP) containing receiving hopper (11), elevator (12), feeding the threads (13) and lung silo (14); one grain of pressing unit (2) containing primary hopper (21) dosing system (22), feeding screw (23), press (24), pre-filter tray (25) and oil receiving tank (26); a drive feedback (3) "pie" (TO) containing screw conveyor (31), bucket elevator (32), secondary hopper (33) and carrier threads with "siloflex" (34 and 35); one expedition unit "pie" (4) containing conveyor screw "siloflex" (41), storage lung silo "pie" (42), yield ramp (43), hopper of expedition (44), carrier threaded "siloflex" (45) and pallet truck (46); a processing unit (5) of the extracted oil (EO) containing hydraulic pumps (51) with hoses the transferring, oil **treatment** reactor (52), filter press (53), with pump feeder gears (54) and central spout (55) coupled to rest tank (55), final storage tank (56), transferring pump gear (57), weighing module (58) with balanca and automatic filler. System this, where the raw material (grain of coffee green like "Arabica") and pressed resulting in the extracted oil that is treated and the "pie" fed back and sent when there is no more oil to be extracted from it.

Classifications:

International (IPC 8-9): A23F5/00 C11B1/10 (Advanced/Invention)

PatBase - BR102014025970_A2

1/5



Family:

Publication number	Publication date	Application number	Application date
BR102014025970 A2	20160712	BR20141025970	20141017

Priority:

BR20141025970 20141017

Probable Assignee: REGIONAL CAFEICULTORES EM GUAXUPE LTDA COOXUPE COOP

Assignee(s): (std): REGIONAL CAFEICULTORES EM GUAXUPE LTDA COOXUPE COOP

Assignee(s): COOP REGIONAL CAFEICULTORES EM GUAXUPE LTDA COOXUPE

Inventor(s): (std): CASAGRANDE MARCELO DOS REIS

Inventor(s): MARCELO DOS REIS CASAGRANDE

Title: DEVICE FOR THERMAL DISPOSAL OF HAZARDOUS WASTES (Machine translation)

Abstract: Source: RU2015115329A 1. Device for thermal disposal of hazardous waste, characterized by the fact that it contains consistently associated Hopper, termoliznyj reactor with feeder and lower discharge device, the capacity for cooling (quenching) carbon residue thermolysis waste bunker temporary warehousing of carbon residue sampling system for rapid analysis of toxicity and install plasma burning carbon residue with a receptionist slag bath as well as a line of fractionation from nasadochnym scrubber, adsorbent and column apparatus for allocation of liquid hydrocarbon fractions thermolysis neskondensirovannogo and product synthesis gas, which is used as a secondary fuel in reactor **water** purification system thermolysis of industrial wastewater, three **cleaning** of flue gases of the thermolysis of the reactor, with reactor thermolysis contains at least one camera, gas **cleaning** system thermolysis contains three stages of purification process of extracting heavy metals oxides, and **water** purification system includes three stages of physical and chemical **treatment**. 2. Device on p. 1, characterized by the fact that the line of the fractionation done with the possibility of filing a condensed fraction along with rinse **water** directly on the **water** purification system and the dumping of industrial waste **water**. 3. Device on p. 1, characterized by the fact that the download site raw thermolysis reactor is made in the shape of the screw feeder is installed at an angle of 5 degrees to 20 degrees with the boot chute with internal **helical screw** bezval'nyy for combined loading and processing

Classifications:

International (IPC 8-9): F23G5/027 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
RU2015115329 A	20161120	RU20150115329	20150424

Priority:

RU20150115329 20150424

Probable Assignee:

CHERNIN EFRON

Assignee(s):

CHERNIN EFRON