

Search history

Search FT=(palm oil and effluent and extract and multiple and evaporator and water) (Results 68)

1:

Search FT=(palm oil and effluent and extract and multiple and evaporator and water) and IC=(c02f1/04) (Results 1)

2:

Search fn=(63200795) (Results 1)

3:

Search fn=(63200795) (Results 1)

4:

Search [SP]: a method for treating effluent produced from palm oil milling process procede de traitement des effluents produits par le processus

5: d'extraction de l'huile de palme the present invention relates to a method for treating effluent produced from palm oil milling process, comprising the steps of removing solid (20) from the effluent, wherein the removed solid are formed into dried products, removing water (30) from the effluent for reusing the water in the palm oil milling process, extracting oil (40) from the effluent to form a residual sludge, wherein the steps of removing solids, removing water, and extracting oil are carried out in sequential order of solid, water and oil. la presente invention concerne un procede de traitement des effluents produits par le processus d'extraction de l'huile de palme, comprenant les etapes consistant a eliminer les matieres solides (20) des effluents, les matieres solides eliminees etant transformees en produits deshydrates, a eliminer l'eau (30) des effluents pour la reutiliser dans le processus d'extraction de l'huile de palme, a extraire l'huile (40) des effluents pour former une boue residuelle, les etapes consistant a eliminer les matieres solides, a eliminer l'eau et a extraire l'huile etant mises en uvre successivement dans l'ordre suivant: matieres solides, eau et huile. (Results 0)

Search fn=(63200795:140 or 69907464:70 or 65315272:70 or 54507625:70 or 15743813:70 or 1899007:70 or 75512039:60 or 73435422:60 or

6: 69991441:60 or 67076525:60 or 65086816:60 or 64615537:60 or 63710260:60 or 62926178:60 or 61122686:60 or 60908120:60 or 60899951:60 or 60580705:60 or 60148748:60 or 59879452:60 or 59685676:60 or 59582546:60 or 51897801:60 or 50738587:60 or 47089110:60 or 35577608:60 or 34573758:60 or 34114083:60 or 31031593:60 or 30953080:60 or 22794259:60 or 11328631:60 or 114534:60 or 114533:60 or 76188137:50 or 76068800:50 or 75435268:50 or 73505412:50 or 66408267:50 or 66324487:50 or 44666966:50 or 43234190:50 or 30860889:50 or 12463283:50 or 2944110:50 or 2541048:50 or 76266003:40 or 73175367:40 or 72496525:40 or 71614331:40 or 67862589:40 or 67652507:40 or 67178531:40 or 67149798:40 or 66273221:40 or 66204973:40 or 65616123:40 or 63924349:40 or 63669969:40 or 63365157:40 or 63123288:40 or 61386871:40 or 61302497:40 or 60549424:40 or 59415339:40 or 59376222:40 or 59342924:40 or 59063220:40 or 58065435:40 or 57835450:40 or 57764439:40 or 57608282:40 or 57481697:40 or 57413225:40 or 56841214:40 or 56300544:40 or 55622327:40 or 55410757:40 or 55191066:40 or 54512720:40 or 54270736:40 or 53195300:40 or 52443581:40 or 52380319:40 or 51715116:40 or 51341886:40 or 51291272:40 or 50845357:40 or 50451967:40 or 49887353:40 or 49389411:40 or 49158177:40 or 49120980:40 or 48975024:40 or 48693694:40 or 48433404:40 or 45100789:40 or 44516491:40 or 44208293:40 or 43984481:40) (Results 100)

Search FT=(multiple and evaporator and water and parallel) (Results 15048)

7:

Search FT=(multiple effect and evaporator and water and parallel) (Results 575)

8:

Search FT=(multiple effect and evaporator and water and parallel and serie) (Results 113)

9:

Search FT=(multiple effect and evaporator and water and parallel and serie and valve) (Results 59)

10:

Search FT=(multiple effect and evaporator and water and parallel and serie and valve and effluent) (Results 25)

11:

Search FT=(multiple effect and evaporator and water and parallel and serie and valve and effluent) (Results 25)

12:

1) Family number: 51782044 (US2014033776A)

© PatBase

Title: ORGANICS AND NUTRIENT RECOVERY FROM ANAEROBIC DIGESTER RESIDUES

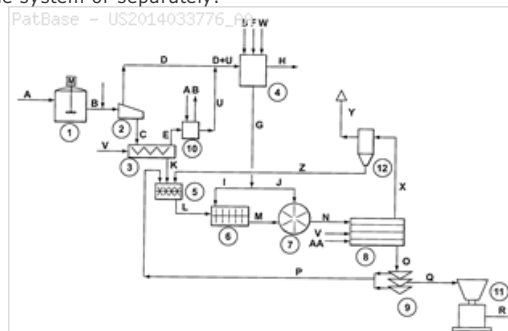
Abstract: Sludge from an anaerobic digester is treated to recover one or more of fibers, or solids or liquids with a high nutrient content. The solids or liquids can be used as a fertilizer. The fibers can be used in a plant growing medium. Solids are separated from liquids in the sludge and dried. The solids may be dried to produce a flake or pellet. Ammonia in the liquids is recovered and used to produce a concentrated acidic ammonium salt solution. This solution may be mixed with the solids to produce a nitrogen enhanced solid. The fibers and solids or liquids can also be used in combination to produce an enhanced plant growing medium. A device and process for removing ammonia from a liquid can be used in the system or separately.

Classifications:

International (IPC 8-9): B01D19/00 C01C1/02 C01C1/10 C01C1/242 C01C1/26 C02F1/02 C02F1/20 C02F1/66 C02F11/00 C02F11/04 C02F11/12 C02F3/12 C02F3/28 C02F3/30 C02F7/00 C02F9/00 C05B17/00 C05C11/00 C05C3/00 C05F11/06 C05F11/08 C05F17/00 C05F3/00 C05F5/00 C05F7/00 C05F9/00 C05G3/00 (Advanced/Invention); C02F1/02 C02F1/66 C02F101/16 C02F103/00 C02F11/04 C02F11/12 C02F3/12 (Advanced/Non-invention)

CPC: C05C11/00 C02F9/00 C02F2103/005 B01D19/0036 C02F1/02 C05B17/00 C01C1/10 C01C1/26 C02F2101/16 C05F5/008 C05F7/00 Y02W10/15 C05G3/0058 C05C3/00 C02F1/66 C02F11/127 C02F3/12 C02F3/30 C02F11/12 C02F1/20 C02F11/121 C02F2209/14 C05F17/0018 C05F17/0054 Y02A40/212 Y02A40/213 Y02A40/205 B01D3/343 B01D19/0005 C01C1/14 C01C1/185 C01C1/242 C01C1/28 C02F11/04 C02F2209/001 C02F2209/02 C02F2209/06 C02F2209/42 C02F2303/02 C05F17/0027 C05F17/0045 Y02E50/343 Y02P20/145 Y02W10/23 Y02W30/43 Y02W30/47

European: C02F1/20 C02F11/12 C05C3/00 C05F17/00K2 C05F5/00H2 C05F7/00 M02F1/66 M02F101/16 M02F11/12C10



US: 1/1 210/151 210/178 210/179 210/180 210/605 210/607 210/609 210/770 422/148 423/352 423/545 562/593 562/608 71/10 71/13 95/258 95/263

Family:

Publication number	Publication date	Application number	Application date
CA2826025 AA	20130730	CA20122826025	20120217
CA2826025 C	20190521	CA20122826025	20120217
CA2860031 AA	20140620	CA20122860031	20121218
CA2894904 AA	20150612	CA20132894904	20131218
CN103534225 A	20140122	CN201280009279	20120217
EP2675770 A1	20131225	EP20120746463	20120217
EP2675770 A4	20170719	EP20120746463	20120217
EP2794482 A1	20141029	EP20120860692	20121218
EP2794482 A4	20150819	EP20120860692	20121218
EP2794482 B1	20190417	EP20120860692	20121218
EP2935158 A1	20151028	EP20130866334	20131218
EP2935158 A4	20170322	EP20130866334	20131218
US2014033776 AA	20140206	US20120982585	20120217
US2014263100 AA	20140918	US20130832737	20130315
US2014346108 AA	20141127	US20120823404	20121218
US2015329399 AA	20151119	US20130652615	20131218
US2016318819 AA	20161103	US20160209293	20160713
US2017073261 AA	20170316	US20160360574	20161123
US9045355 BB	20150602	US20130832737	20130315
US9416038 BB	20160816	US20120982585	20120217
US9533903 BB	20170103	US20120823404	20121218
US9822020 BB	20171121	US20130652615	20131218
US10239776 BB	20190326	US20160360574	20161123
WO12109737 A1	20120823	WO2012CA00144	20120217
WO13091094 A1	20130627	WO2012CA50907	20121218
WO14094162 A1	20140626	WO2013CA50985	20131218

Priority:

US20110443905P 20110217	US20110578703P 20111221	US20120982585 20120217
WO2012CA00144 20120217	US20120707467P 20120928	CA20122860031 20121218
US20120823404 20121218	WO2012CA50907 20121218	US20130823404 20130314
US20130832737 20130315	US20130810088P 20130409	US20130982585 20131015
CA20132894904 20131218	US20130652615 20131218	WO2013CA50985 20131218
US20160209293 20160713	US20160360574 20161123	

Probable Assignee: ANAERGIA INC

Assignee(s): (std): ANAERGIA INC ; BENEDEK ANDREW ; JOSSE JUAN CARLOS ; SCOTT ZACHARY ; THEODOULOU MICHAEL DAVID

Assignee(s): THEODOULOU MICHAEL DAVID355 NUNN COURTMILTONO1L9T 7M3CA ; ROLLINGS SCATTERGOOD SASHA MICHAEL ; KUMAR ASHWANI ; ANAERGIA INC4210 SOUTH SERVICE ROADBURLINGTONO1L7L 4X5CA

Inventor(s): (std): SCOTT ZACHARY ; THEODOULOU MICHAEL DAVID ; JOSSE JUAN CARLOS ; BENEDEK ANDREW ; ROLLINGS SCATTERED SASHA MICHAEL ; KUMAR ASHWANI ; THEODOULOU MICHAEL DAVID ; ROLLINGS SCATTERGOOD SASHA MICHAEL

Inventor(s): SCOTT ZACHARYUS ; JOSSE JUAN CARLOSUS ; THEODOULOU MICHAEL DAVID355 NUNN COURTMILTONO1L9T 7M3CA ; BENEDEK ANDREWUS

Agent(s): BORDEN LADNER GERVAIS LLP; SCHUETTE HARTMUT; BSB PATENTANWALTE SCHUETTE AND ENGELEN PARTNERSCHAFT MBB; SCOTT; ALLARD LOUIS; PUNDSACK SCOTT R 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 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

2) Family number: 56091075 (WO14043776A1)

© PatBase

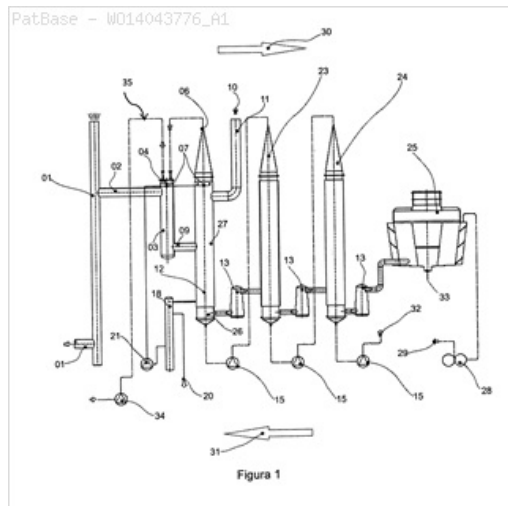
Title: METHOD FOR USING WASTE HEAT FROM SUGAR CANE BAGASSE COMBUSTION DISSIPATED THROUGH BOILER CHIMNEYS, AND IMPROVEMENT TO CONCENTRATION PLANT

Abstract: The present invention describes a process for utilising waste heat (hot gas at 200 degrees C) dissipated through the chimneys (1) of steam-generator boilers. The initially superheated gases are first fed to a pre-heater (3) with spraying nozzles (7) which remove excess heat and saturate the superheated gases, and are then fed to a multiple effect evaporator (12, 23, 24) which concentrates the juice or vinasse with "N" effects. This process allows the concentration of juice or vinasse by means of turbulent spray evaporators especially developed to be 100 percent fed with hot gases from boiler chimneys. Also described is an improvement to the concentration plant consisting of a coupling (2) that captures all or part of the hot gases eliminated through chimneys and adds the hot gases to scrubbers or sprayers (7) that scrub said gases and remove excess heat with condensed water (17), and of an added chimney (11) for eliminating dry gases (10) that cannot be condensed.

Classifications:

International (IPC 8-9): B01D1/26 (Advanced/Invention)

CPC: B01D1/26 B01D1/0058

**Family:**

Publication number	Publication date	Application number	Application date
BR102012025224 A2	20150526	BR20121025224	20120924
BR102012025224 B1	20160301	BR20121025224	20120924
WO14043776 A1	20140327	WO2013BR00381	20130923

Priority:

BR20121025224 20120924

Probable Assignee: CITROTEC INDUSTRIA E COMERCIO LTDA**Assignee(s):** (std): CITROTEC IND E COM LTDA ; CITROTEC INDUSTRIA E COMERCIO LTDA**Inventor(s):** (std): SAMPAIO PAULO HENRIQUE**Inventor(s):** PAULO HENRIQUE SAMPAIO**Agent(s):** NOVA MARCA CONSULTORES ASSOCIADOS LTDA

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 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

3) Family number: 31446124 (US3329583A)

© PatBase

Title: METHOD FOR PRODUCING PURE WATER FROM SEA WATER AND OTHER SOLUTIONS BY FLASH VAPORIZATION AND CONDENSATION

Abstract: Source: DE1717080A1 [DE] (Claim 1) 11 a t e n t a n a p r U c 1. Verfahren zur Entpannungsverdampfung einer waessrigen Loesung zur Brzeugung von Frischwasser, gekennzeichnet durch die folgenden Verfahrenemassnahmen: a) Erwaermung der waessrigen Ausgangsloesung in einem driger ist als der Saettigungsdruck bei der hoechst auftre tenden Temperatur durch Verbrennung eines Brennstoffe unter der Oberflaeche der Loesung, b) Hindurchleitung der erhitzten Loesung durch Stufen bei Druucken und Temperaturen, die - bezogen auf die des Vor- erhitzere - niedriger sind, wobei ein Waermeaustausch mit einem kilteren waessrigen Strom stattfindet, der auf einer niedrigmm Temperatur als der der Ausgangsloesung in jeder Stufe gehalten wird, wobei der kaeltere waeserige Strom immer auf einem Druck gehalten wird, der oberhalb seines Saettigungsdruckes liegt, c) Verdampfung eines Teils des Wassers der uoprUnglichen Loesung in jeder Stufe und Kondensation der entstandenen Dampfel #rodurah der.

Machine translation: (Claim 1) 11 A t e n t A n a p r U c 1. Procedure for the Entpannungsverdampfung of an aqueous solution for the Brzeugung characterized by fresh water, by the following procedure ASS ASS: A) Heating up of the aqueous initial solution in is more driger than the Saettigungsdruck at the most auftre tenden temperature by burn fuels under the surface of the solution, b) Hindurchleitung of the solution heated up by stages at pressures and temperatures, which - related to those of the pre erhitzere - are lower, whereby a heat exchange with a kilteren aqueous river takes place, which is held for the initial solution in each stage on one niedrigmm temperature as that, whereby the colder waeserige river is always held for evaporation of a part of the water of the uoprUnglichen solution in each stage and condensation of the developed Dampfel on a pressure, which lies above its Saettigungsdruckes, C) #rodurah that.

Classifications:

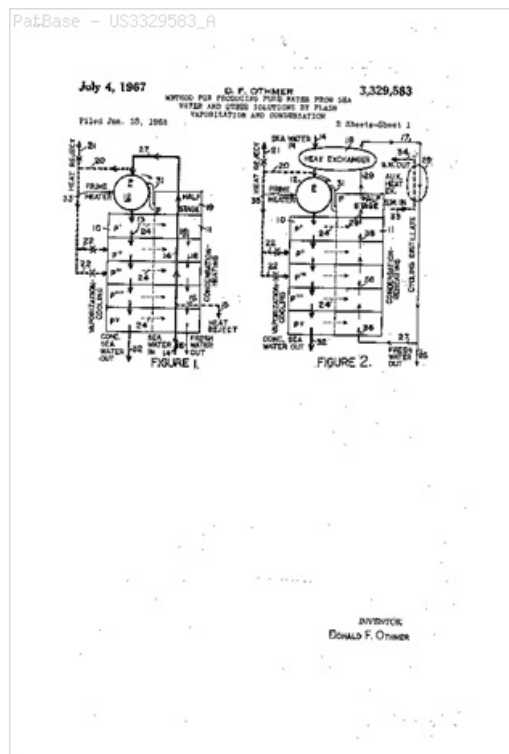
International (IPC 8-9): B01D3/06 C02F1/16 (Advanced/Invention); B01D3/00 C02F1/16 (Core/Invention)

International (IPC 1-7): B01D3/06 C02B1/06 C02F1/16

CPC: Y10S159/17 Y10S159/33 Y10S203/11 C02F1/16 B01D3/065

European: B01D3/06B C02F1/16

US: 159/16.2 159/18 159/DIG.17 159/DIG.33 202/173 202/185.1 203/10 203/100 203/22

**Family:**

Publication number	Publication date	Application number	Application date
DE1717080 A1	19711223	DE19641717080	19640115
ES295788 A1	19640716	ES19640295788	19640118
FR1410993 A	19650917	FR19640960722	19640117
US3329583 A	19670704	US19630252473	19630118

Priority:

US19630252473 19630118 FR19640960722 19640117

Probable Assignee: PPM GES F WASSER

Assignee(s): (std): OTHMER DONALD F ; OTHMER DONALD F PROF ; OTHMER MARIAN ; OTHMER MILDRED TOPP ; PPM GES F R WASESR GAS U LUF ; PPM GES F WASSER ; PPM GES FUER WASSER ; PPM GES F R WASESR GAS UND LUF

Assignee(s): PPM GESELLSCHAFT FUR WASESR GAS UND LUFTREINIGUNG MI BESCHRANKTER HAFTUNG ; PPM GESELLSCHAFT FUER WASSER GAS UND LUFTREINIGUNG MIT BESCHRANKTER HAFTUNG ; PPM GES FUR WASESR GAS U LUFTREINIGUNG MI BESCHRANKTER HAFTUNG ; PPM GES F WASSER GAS U LUFTREINIGUNG MIT BESCHRANKTER HAFTUNG ; PPM GESELLSCHAFT FUER WASSER GAS UND LUFTREINIGUNG

Inventor(s): (std): OTHMER DONALD F ; F PROF OTHMER DONALD

Inventor(s): F

4) Family number: 64964253 (WO18130736A1)

© PatBase

Title: DEVICE AND METHOD FOR OBTAINING A DESICCATED PRODUCT FROM BLOOD OR DERIVATIVES

Abstract: The invention relates to a device and method for obtaining a desiccated product from blood or derivatives. The device comprises a multiple-effect vacuum evaporation system (2), a vacuum dryer (3) with vertical plates, including stirrers (3A3) that extend the exchange surface, and an ozoniser (4); and wherein the system of evaporators (2) and/or dryer (3) use the residual effluents of an industry as energy source. The method comprises the steps of injecting the blood into a system of multiple-effect evaporators, and sending the concentrated blood to a dryer. In the dryer, the blood is stirred by the action of stirrers, and is exposed to the action of the ozone injected by an ozoniser.

Classifications:

International (IPC 8-9): A23J1/06 A23K10/24

B01D1/26 (Advanced/Invention)

CPC: A23J1/06 A23K10/24 B01D1/26

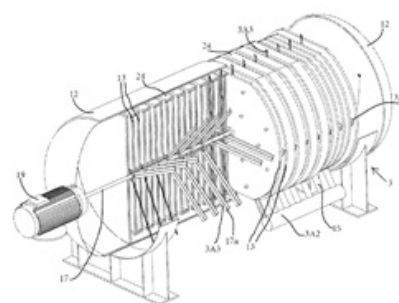


Figura 5

Family:

Publication number	Publication date	Application number	Application date
■ EP3569296 A1	20191120	EP20180738496	20180110
■ ES2601932 AA	20170216	ES20170030019	20170111
■ ES2601932 BB	20170525	ES20170030019	20170111
■ WO18130736 A1	20180719	WO2018ES70017	20180110

Priority:

ES20170030019 20170111 WO2018ES70017 20180110

Probable Assignee: UNIV SANTIAGO COMPOSTELA**Assignee(s):** (std): UNIV SANTIAGO COMPOSTELA**Assignee(s):** UNIVERSIDADE DE SANTIAGO DE COMPOSTELA**Inventor(s):** (std): VARELA RODRIGUEZ HIRAM ; MAGIDE AMEIJIDE JOSE MANUEL**Inventor(s):** JOSE MANUEL MAGIDE AMEIJIDE ; HIRAM VARELA RODRIGUEZ**Agent(s):** BALDER IP LAW SL; PARDO SECO FERNANDO RAFAEL

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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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

5) Family number: 18806323 (ES2078879B)

© PatBase

Title: PROCEDIMIENTO INTEGRAL PARA DEPURACION DE AGUAS RESIDUALES EN DESTILERIAS.

Abstract: Integral process for purifying waste water in distilleries covering each production unit which provides for the recycling of waste water from distillates via their diffuser system, prior settling of sludge and the biological stabilization of recycled water; an acidification, cooling and vacuum filtration system for dealcoholized lees, with the final evaporation of waste water; an integrated system for the distillation of wines, lees or fermented molasses and the evaporation of fortified wines from these using only the heat of evaporation energy of the alcoholic vapours proceeding from the still; obtaining calcium tartrate from wines; concentrated liquid fertilizers obtained from wine drawn from lees, lees, brandies or fermented molasses; solid fertilizers by the composting of wine lees, sludges and filtering earths, and distilled water which can be recycled in the manufacturing processes.

Classifications:**International (IPC 8-9):** C02F1/16 C05F5/00 C07C59/255 C12F3/08

C12F3/10 (Advanced/Invention);

C02F1/16 C05F5/00 C07C59/00 C12F3/00 (Core/Invention)

International (IPC 1-7): C02F1/16 C05F5/0 C05F5/00 C06F6/00

C07C59/255 C07C69/266 C12F3/08 C12F3/10

CPC: Y02A40/209 Y02A40/211

ES 2 078 879 A1

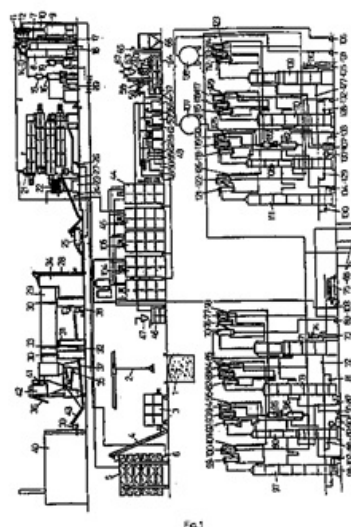


Fig. 1

13

Family:

Publication number	Publication date	Application number	Application date
ES2078879 AA	19951216	ES19940000976	19940509
ES2078879 BA	19960716	ES19940000976	19940509

Priority:

ES19940000976 19940509

Probable Assignee:

CONSTRUCCIONES VENTO S C LTDA

Assignee(s): (std):

CONSTRUCCIONES VENTO S C LTDA

Assignee(s):

CONSTRUCCIONES VENTO SC LTDA

Inventor(s): (std):

GARCIA MORENO ANGEL

6) Family number: 56664332 (US2014158514A)

© PatBase

Title: METHODS OF SEPARATING SALTS AND SOLVENTS FROM WATER

Abstract: Methods and apparatus for separation of one or more salts from water are described. The methods include addition of a water miscible solvent to the water, followed by separation of the precipitated salt in a slurry, and evaporation of the water miscible solvent from the slurry. The apparatus include a novel design for a wetted wall separator tube that allows the solids in the slurry to pass through while providing efficient evaporation of the water miscible solvent from the water.

Classifications:

International (IPC 8-9): A47J19/00 A47J43/044 A47J43/08 A47J43/24 B01D1/06 B01D1/14 B01D17/02 B01D61/00 B01D61/02 B01D61/14 B01D61/58 B01D63/00 B01D65/00 B01D9/00 B01F3/00 B01F3/08 B03D B03D1/016 B04C3/02 C01D3/04 C02F1/04 C02F1/08 C02F1/24 C02F1/26 C02F1/44 C02F1/469 C02F1/52 C02F1/54 C02F1/58

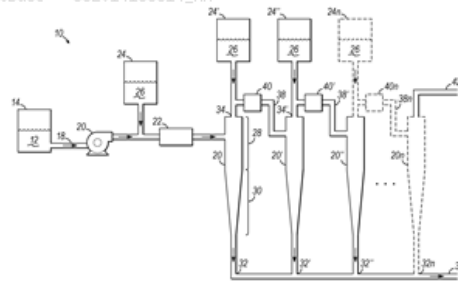
E21B43/34 (Advanced/Invention);

B03D (Subclass/Invention)

CPC: B01D17/0205 A47J43/24 C02F1/447 C02F2301/063 C02F1/5245 C02F1/5281 B01D1/06 C02F1/043 C02F1/5272 B03D1/1462 B03D1/242 C02F1/727 C02F1/74 C02F2101/203 C02F2101/32 C02F2101/325 C02F2305/08 E21B43/34 C02F1/265 C02F1/442 C02F1/4693 C02F2101/108 Y02A20/131 Y02A20/134 B01D9/0031 B01D9/0036 B01D9/0054 B01D61/04 B01D65/08 B01D2311/04 B01D2311/2642 B03D1/008 B03D1/01 B03D1/016 B03D1/1431 B03D2201/007 B03D2203/008 C02F1/048 C02F1/08 C02F1/24 C02F1/385 C02F1/40 C02F1/441 C02F1/444 C02F1/5236 C02F1/56 C02F1/66 C02F1/68 C02F2001/007 C02F2001/5218 C02F2101/10 C02F2103/08 C02F2103/10 C02F2303/20 C02F2303/22 C02F2305/04

US: 159/6.1 202/185.1 204/665 205/746 205/748 210/195.2 210/205 210/209 210/243 210/512.1 210/636 210/650 210/652 210/702 210/703 210/706 210/710 210/711 210/714 210/729 210/735 252/175 252/60 99/495

PatBase - US2014158514_AA

**Family:**

Publication number	Publication date	Application number	Application date
AR093877 AA	20150624	AR2013P104583	20131209
AU2013355091 AA	20140612	AU20130355091	20131206
BR112015013277 A2	20170711	BR20151113277	20131206
CA2846955 AA	20140915	CA20142846955	20140317
CA2894162 AA	20150605	CA20132894162	20131206

CL2015001527 A1	20160108	CL20150001527	20150604
CN105451888 A	20160330	CN201380071816	20131206
EP2928612 A1	20151014	EP20130811334	20131206
IL239165 A0	20150730	IL20130239165	20131206
IN05298DN2015 A	20160812	IN2015DN05298	20150617
JP2016504186 T2	20160212	JP20150545875T	20131206
MX2015007184 A1	20160307	MX20150007184	20131206
PE12012015 A1	20150831	PE20150000761	20131206
PE20151201 A1	20150831	PE20150000761	20131206
SG11201504419R A1	20150730	SG20151104419	20131206
US2014158514 AA	20140612	US20130099283	20131206
US2014158616 AA	20140612	US20130099306	20131206
US2014158631 AA	20140612	US20130099237	20131206
US2014158632 AA	20140612	US20130099268	20131206
US2014261018 AA	20140918	US20140216338	20140317
US2014299529 AA	20141009	US20140310388	20140620
UY35178 A1	20140731	UY20130035178	20131206
WO14089443 A1	20140612	WO2013US73598	20131206

Priority:

US20120734491P	20121207	US20120735211P	20121210	US20130757891P	20130129
US20130768486P	20130224	US20130784099P	20130314	US20130786942P	20130315
US20130786972P	20130315	US20130878861P	20130917	US20130099283	20131206
US20130099306	20131206	US20130099268	20131206	US20130099237	20131206
WO2013US73598	20131206	US20140216338	20140317	US20140310388	20140620

Probable Assignee: ADVANCED WATER RECOVERY LLC

Assignee(s): (std): ADVANCED WATER RECOVERY LLC ; KATZ DESIGN INC

Assignee(s): KATZ DESIGN INC225 - 4710 ST-AMBROISEMONTREALQ1H4C 2C7CA ; KATZ ROBERTD-507 - 4150 SAINT-AMBROISEMONTREALQ1H4C 0A7CA ; DUCHESNE SYLVAIN1026 MILTIMOREBROMONTQ1J2L 2A8CA ; FOSTER ROBERT ; GOVIND RAKESH

Inventor(s): (std): GOVIND RAKESH ; FOSTER ROBERT ; KATZ ROBERT ; DUCHESNE SYLVAIN ; ROBERT FOSTER ; RAKESH GOVIND

Inventor(s): DUCHESNE SYLVAIN1026 MILTIMOREBROMONTQ1J2L 2A8CA ; KATZ ROBERTD-507 - 4150 SAINT-AMBROISEMONTREALQ1H4C 0A7CA

Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; MADDERNS PTY LTD; SMART AND BIGGAR; FURMAN IP LAW AND STRATEGY PC; BEUCHAT BARROS AND PFENNIGER; FINDLAY ALICE ROSEMARY; JEFFERIES DAVID E 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 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

7) Family number: 66621389 (US2019336881A)

© PatBase

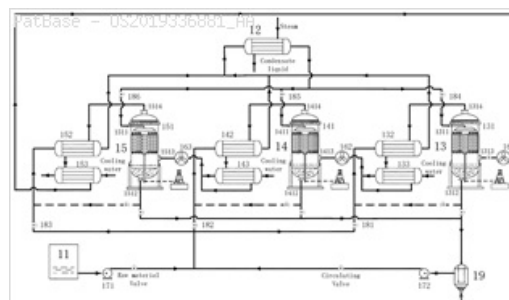
Title: MULTI-STAGE EVAPORATION SYSTEM ENHANCED BY A GRAVITY-REDUCED FIELD

Abstract: A multi-stage evaporation system enhanced by a gravity-reduced field consists of evaporation structures of multiple stages. There are three different operation modes, namely, a serial-connected air and parallel-connected solution mode, a serial-connected air and serial-connected solution mode, and a parallel-connected air and serial-connected solution mode. In the evaporation chambers, the solution directly contacts the air to transfer the heat and mass. The solution is sprayed on the rotating filling material, and is uniformly distributed under the action of the gravity-reduced field, which enhances the heat and mass transfer. The solution is gasified by absorbing the heat energy thereof. Meanwhile, the air can carry more water vapor after being heated by the solution and thus having an increased temperature, and take away the gasified solution, thereby achieving the purpose of evaporation.

Classifications:

International (IPC 8-9): B01D1/14 B01D1/20 B01D1/22 B01D1/26 (Advanced/Invention)

CPC: B01D1/14 B01D1/26 B01D1/0082 B01D1/16 B01D3/007 B01D3/08 B01D3/146 B01D3/346 B01D3/42 B01D5/006 B01D1/222 B01D1/20



Family:

Publication number	Publication date	Application number	Application date
CN107042022 A	20170815	CN201710029809	20170117
GB201909267 A0	20190814	GB20190009267	20180111
GB2571887 A1	20190911	GB20190009267	20180111
US2019336881 AA	20191107	US20180474557	20180111
WO18133724 A1	20180726	WO2018CN072185	20180111

Priority:

Probable Assignee: UNIV NANJING TECH

Assignee(s): (std): NANJING UNIV OF TECHNOLOGY ; UNIV NANJING TECH

Assignee(s): NANJING TECH UNIV

Inventor(s): (std): HUANG XIN ; KE TINGFEN ; LI YANG ; LIU WEIHONG ; LING XIANG ; TINGFEN KE ; XIANG LING ; WEIHONG LIU ; YANG LI ; XIN HUANG

Agent(s): NANJING ZHONGSHAN PATENT AGENT CO LTD

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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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

8) Family number: 28648477 (US4714032A) PatBase

Title: Pollution-free pressurized combustion utilizing a controlled concentration of water vapor

Abstract: In a continuous pressurized process for the combustion, in the presence of steam and alkali, of solid fuels charged as aqueous slurries, the improvements comprising the elevation of inlet zone temperature in an entrained phase reactor by recirculating hot solid products to the zone, maintaining increased temperature and/or reduced steam partial pressure in the reactor and/or utilizing contaminated water from an associated fuels processing apparatus as a source of slurry and/or reactor temperature control water. An embodiment suitable for a coal-fired gas turbine locomotive is described and illustrated.

Classifications:

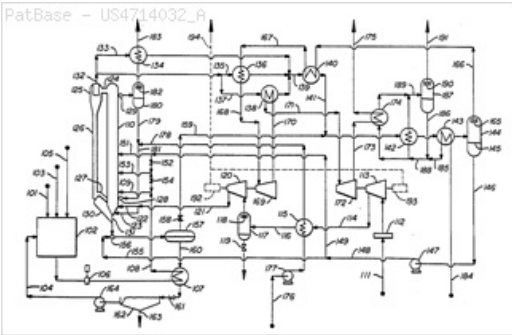
International (IPC 8-9): C02F11/08 C08J11/00 C10B53/00 C10G31/06 C10L1/00 C10L1/32 C10L9/00 F01K17/00 F01K17/02 F01K23/10 F01K3/18 F02C3/26 F02C3/28 F02C6/18 F23C10/10 F23C10/16 F23C99/00 F23G5/027 F23G7/00 F23G7/04 F23K1/00 F23K1/04 F23K3/00 F23K3/02 (Advanced/Invention); C08J11/00 F01K17/00 F01K23/10 F23G7/00 F23G7/04 F23K3/00 (Advanced/Non-invention); F23G7/00 (Core/Non-invention)

International (IPC 1-7): C08J11/00 C10B53/00 C10L1/32 F01K17/00 F01K17/02 F01K23/10 F01K27/00 F02C3/26 F02C3/28 F02C6/18 F02C7/00 F23C11/00 F23D1/00 F23G5/027 F23G7/00 F23G7/04 F23K1/04 F23K3/00 F23K3/02

CPC: C10L1/326 C10L9/00 Y02T50/671 C02F11/086 C10G31/06 C10L1/00 F01K3/188 F02C3/26 F23C10/10 F23C10/16 F23C99/00 F23C2206/101 F23G2201/603 F23G2201/80 F23G2900/50214 F23K1/00 Y02E20/12 Y02E20/16 Y02T50/672

European: C02F11/08D C10G31/06 C10L1/00 C10L1/32C C10L9/00 F01K3/18F F02C3/26 F23C10/10 F23C10/16 F23C99/00 F23K1/00 R01K135/46 R01K181/35 R22B201/16 R22B204/02 R23C206/101 R23G201/603 R23G201/80 R23G900/50214 Y02E20/12 Y02E20/14 Y02E20/16 Y02E20/18 Y02T50/67B Y02T50/67B2

US: 110/238 110/346 110/347 110/348 122/2 122/31.1 122/7.00C 122/7C 431/4 44/280 44/281 60/39.12 60/39.464 60/39.55 60/648 60/649 60/655 60/676 60/775



Family:

Publication number	Publication date	Application number	Application date
AU199510546 A1	19950613	AU19950010546	19941114
AU199662628 A1	19961230	AU19960062628	19960605
AU695627 B2	19980820	AU19960062628	19960605
BRPI9609015 A	19991214	BR1996PI09015	19960605
CA2173454 AA	19950601	CA19942173454	19941114
CA2173454 C	20071009	CA19942173454	19941114
CA2223937 AA	19971205	CA19962223937	19960605
CA2223937 C	20021105	CA19962223937	19960605
CN1055741 C	20000823	CN19941094126	19941114
CN1135249 A	19961106	CN19941094126	19941114
EP0729545 A1	19960904	EP19950901224	19941114
EP0729545 A4	19980128	EP19950901224	19941114
IN02241MA1997 A	20050902	IN1997MA02241	19971008
IN205637 B	20070629	IN1997MA02241	19971008
JP3529385 B2	20040524	JP19950515104T	19941114
JP9505878 T2	19970610	JP19950515104T	19941114
KR100383288 B1	20030710	KR19960702562	19941114
KR19960706010 A	19961108	KR19960702562	19941114
KR19990022338 A	19990325	KR19970708818	19960605
KR960706010 A	19961108	KR19960702562	19960515
MX9709610 A1	19980731	MX19970009610	19971205
RU2161168 C2	20001227	RU19970117455	19960605
RU97117455 A	19990627	RU19970117455	19971017
TW296421 B	19970121	TW19960107752	19960627
US4714032 A	19871222	US19850813486	19851226
US4898107 A	19900206	US19890294424	19890109
US5000099 A	19910319	US19880290368	19881229
US5050375 A	19910924	US19890388069	19890721
US5261225 A	19931116	US19910763000	19910920
US5485728 A	19960123	US19930152796	19931115
US5685153 A	19971111	US19950486026	19950607

VN2294 A1	20011025	VN19960002001	19960511
WO9514850 A1	19950601	WO1994US13009	19941114
WO9641070 A1	19961219	WO1996US09580	19960605

Priority:

US19850813486 19851226	US19870100531 19870924	US19870123280 19871120
US19880290368 19881229	US19890294424 19890109	US19890388069 19890721
US19910763000 19910920	US19930152796 19931115	WO1994US13009 19941114
US19950486026 19950607	WO1996US09580 19960605	

Probable Assignee: SGC ADVISORS LLC

Assignee(s): (std): DIPAC ASSOCIATES ; EHNTERTEK EHNVAJRONMENTAL INK ; ENERTECH ENVIRONMENTAL INC ; MURRAY ROBERT G ; KLOSKY MICHAEL K ; DICKINSON NORMAN L

Assignee(s): ENERTECH ENVIRONMENTAL INC (DELAWARE C CORP) ; ENERTECH ENVIRONMENTAL INC DELAWARE C CORP ; SGC ADVISORS LLC ; ENERTECH ENVIRONMENTAL INCUS

Inventor(s): (std): DICKINSON N L ; MICHAEL K KLOSKY ; NORMAN L DICKINSON ; ROBERT G MURRAY ; N L DICKINSON ; KLOSKY MICHAEL K ; MURRAY ROBERT G ; DICKINSON NORMAN L ; DIKINSON NORMAN L ; KLOSKI MAJKL K ; MJURREHJ ROBERT G

Inventor(s): ROBERT G MURRAY

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; FETHERSTONHAUGH AND CO

Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IL IS IT JP KE KG KP KR KZ 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 SN SZ TD TG TJ TM TR TT UA UG US UZ VN

9) Family number: 29749488 (US2001033816A)

© PatBase

Title: APPARATUS AND METHOD FOR AMMONIA REMOVAL FROM WASTE STREAMS

Abstract: Apparatus, materials, and methods for removing ammonia from fluids using metal hydroxides (e.g. zinc hydroxide) and metal loaded media (e.g. zinc loaded ion exchange resins); the metal hydroxides and metal loaded media may be regenerated with a weak acid (pKa between 3 and 7). Alternatively, ammonia is removed from fluids by using H₂SO₄ and ZnSO₄ and metal loaded media; the metal loaded media may be regenerated with H₂SO₄ and ZnSO₄; the ammonia containing H₂SO₄ and ZnSO₄ may be concentrated as necessary to form (NH₄)₂SO₄.ZnSO₄.6H₂O (ammonium zinc sulfate hexahydrate) crystals. These crystals are removed from the mother liquor and heated to temperatures exceeding 200 degrees centigrade releasing NH₃ and H₂O vapor upon the decomposition of the crystals.

Classifications:

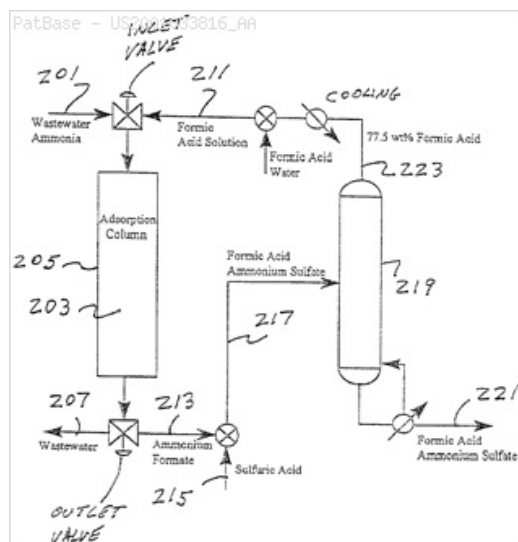
International (ipc 8-9): B01D53/04 B01D53/58 B01J20/34 B01J45/00 B01J49/00 C01G9/06 C02F1/28 C02F1/42 (Advanced/Invention); C02F1/28 C02F1/42 (Advanced/Non-invention)

International (ipc 1-7): B01D11/00 B01D53/02 B01D53/04 B01D53/58 B01J20/34 B01J45/00 B01J49/00 C01B25/45 C01C1/02 C01C1/244 C01G9/06 C02F1/28 C02F1/42 C02F1/58

CPC: Y10S210/903 B01D53/0423 B01D53/04 B01D53/10 B01D2253/10 B01D2253/104 B01D2253/1085 B01D2253/202 B01D2253/206 B01D2257/406 B01D2259/40088 B01D2259/40092 B01J45/00 B01J20/3433 B01J20/06 B01J20/3475 B01J49/53

European: B01D53/04 B01D53/04C4 B01D53/10 B01J20/34 B01J45/00 B01J49/00M2 L01D253/10 L01D253/104 L01D253/108B L01D253/202 L01D253/206 L01D257/406 L01D259/40T30 L01D259/40T30L L01D53/04

US: 210/269 210/634 210/639 210/639S 210/674 210/681 210/723 210/724 210/757 210/757S 210/774 210/774S 210/903 422/177 422/177S 423/237 423/237P 423/238 423/306 423/352 423/356 423/463 423/517 423/548 423/548S 502/28 502/28S 95/128 95/128S 95/148 95/148S 96/143 96/143S



Family:

Publication number	Publication date	Application number	Application date
AT296680 E	20050615	AT19980914393T	19980331
AU199868755 A1	19981022	AU19980068755	19980331
AU724141 B2	20000914	AU19980068755	19980331
CA2285277 AA	19990927	CA19982285277	19980331
CA2285277 C	20070807	CA19982285277	19980331
DE69830394 D1	20050707	DE19986030394	19980331
DE69830394 D1	20050707	DE19986030394T	19980331
DE69830394 T2	20060126	DE19986030394T	19980331
DE69830394 T8	20060427	DE19986030394T	19980331
EP0971790 A1	20000119	EP19980914393	19980331
EP0971790 B1	20050601	EP19980914393	19980331
ES2241132 T3	20051016	ES19980914393T	19980331
JP2002501427 T2	20020115	JP19980541958T	19980331
US2001033816 AA	20011025	US20010754850	20010104
US2001037976 AA	20011108	US20000751411	20001229
US2003215377 AA	20031120	US20030346896	20030117
US6558643 BB	20030506	US20000751411	20001229
US6838069 BB	20050104	US20030346896	20030117

WO9843738 A1	19981008	WO1998US06415	19980331
--------------	----------	---------------	----------

Priority:
US19970042175 19970331 US19970042175P 19970331 US19970060079 19970925
US19970060079P 19970925 WO1998US06415 19980331 US19980052450 19980331
US20000751411 20001229 US20010754850 20010104 US20030346896 20030117

Probable Assignee: BATTELLE MEMORIAL INST

Assignee(s): (std): BATTELLE MEMORIAL INSTITUTE ; BLONIGEN SCOTT J ; LITT ROBERT D ; MONZYK BRUCE F ; FASSBENDER ALEX G ; NEFF RICHELLE L ; BATTELLE MEMORIAL INST ; BATTELLE MEMORIAL INST COLUMBU

Assignee(s): BATTELLE MEMORIAL INST COLUMBUS ; BATTELLE MEMORIAL INST PACIFIC NORTHWEST DIVISION ; BATTELLE MEMORIAL INSTITUT ; BATTELLE MEMORIAL INSTITUTE PACIFIC NORTHWEST DIVI ; BATTELLE MEMORIAL INSTITUTE COLUMBUS ; FASSBENDER ALEXANDER G ; NEFF RICHELLE ; BATTELLE MEMORIAL INSTITUTE PACIFIC NORTHWEST DIVISION

Inventor(s): (std): BRUCE F MONZYK ; SCOTT J BLONIGEN ; ROBERT D LITT ; ALEX G FASSBENDER ; RICHELLE L NEFF ; MONZYK F ; NEFF L ; FASSBENDER G ; BLONIGEN J ; LITT D ; NEFF RICHELLE ; MONZYK BRUCE F ; LITT ROBERT D ; FASSBENDER ALEXANDER G ; BLONIGEN SCOTT J ; NEFF RICHELLE L ; FASSBENDER ALEX G

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR; KLAUS H

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HU ID IE IL 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 UA UG US UZ VN YU ZW

10) Family number: 58581505 (WO15025334A2)

PatBase

Title: SPRAY MODULAR EVAPORATOR

Abstract: The spray modular evaporator comprising of plate heat exchanger with entrainment separator equipped vertically in a novel configuration forming a unique multi-effect evaporator to utilize the waste and low temperature vapours or steam of steam turbines, pans and evaporators in sugar, food, process, power plant and other processing industries or any degraded vapours form any process. The spray modular evaporator arranged for expanding heating surface by joining each effect or more effects in series or parallel combination for expanding in the same effect or combinations for additional effects without use of vapour piping and pumping.

Classifications:
International (IPC 8-9): B01D C13B25/06 (Advanced/Invention)
CPC: C13B25/06

Family:

Publication number	Publication date	Application number	Application date
IN02468DE2013 A	20150227	IN2013DE02468	20130821
WO15025334 A2	20150226	WO2014IN00534	20140821

Priority:
IN2013DE02468 20130821

Probable Assignee: VERMA VIVEK

Assignee(s): (std): VERMA VIVEK

Assignee(s): VEVEK VERMA

Inventor(s): (std): VERMA VIVEK

Agent(s): BANSAL KOMPAL

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