

Search history

Search PA=(EXSA) (Results 12)

1:

Search [SP]: method for producing an anfo explosive using ammonium nitrate and residual oils and product thus produced the present invention relates to a method for producing anfo on the basis of filtration and purification of the residual oils of a mine in a filter truck especially designed and developed for this purpose, with the aim of completely replacing the diesel fuel 2 with said residual oils that have been previously treated in order to mix same with ammonium nitrate, as well as the product resulting from said method. the aim of this invention is to use the residual oil produced in mines in large quantities, as the only combustible agent in the production of anfo, generating cost savings by completely substituting diesel 2 and additionally eliminating the existing risk inherent in the removal of the residual oil from the mine and the negative impact that it can generate in the environment if it is not used appropriately. (Results 6)

Search 2 and filter* (Results 3)

3:

Search [SP]: 1-3. (canceled) 4. a method for producing anfo on the basis of ammonium nitrate and purified residual oil, comprising a double residual oil filtrate with the following steps: the filter truck removing residual oil from the collection center the product being introduced through a discharge hose into the manholes or access holes of the truck where the first 1 mm filtration is performed the residual oil thus filtered being transported to the points at which explosive producing trucks are located the filter truck pumping and driving the residual oil through two 30-micron serial filters, in which the second filtration is performed then the residual oil circulates through a gallon counter the already twice filtered residual oil being ejected with a swing gun to the fuel-mixture tank of the explosive mixing truck the explosive mixing truck integrating the twice filtered residual oil into ammonium nitrate. 5. the method of claim 4, wherein the filter truck in which the steps of the method are carried out is formed by the following components: cistern tank in which the residual oil is stored vent valve by which the oxygen is introduced into the tank manholes or access holes located at the top of the truck, each with the respective filters with 1 mm sieve for solid retention mixer cleaning valves suctioning and delivering under pressure pump of the residual oil suction valves suction filter hydraulic motor viewing-of-gallons-of-residual-oil-that-are-delivered-to-the-mixing-truck comptometer dispensing-of-controlling-the-filling-of-the-mixing-truck-tank-with-residual-oil valve chassis on which the components are transferred. 6. an anfo-type explosive produced by the method of claim 4, comprising residual oil instead of diesel 2 in the combustible phase thereof having the following composition: ammonium nitrate 92 percent 100 percent purified residual oil 8 percent anfo 100 percent (Results 0)

Search [SP]: technical field [0001] the present invention relates to the field of explosives, specifically to the production of anfo using residual oils instead of diesel 2. the present invention relates to a method for producing an explosive (anfo) using ammonium nitrate and residual oils, as well as the product produced by means of this method. prior art [0002] anfo is a high-order explosive that is very widely used in the mining industry for blasting as it is very safe and inexpensive, its components can be easily obtained, in addition to the fact that the detonation of anfo is ultrasonic and the blast is very powerful in relation to the quantity that must be used. [0003] it is widely used in blasting medium to soft rocky soils by introducing powder in blast holes by means of compressed air or in another form of presentation with an emulsion matrix to form heavy anfo. [0004] the present invention essentially consists of a mixture of ammonium nitrate and petroleum-derived fuel, the conventional production method thereof producing anfo by mixing specific quantities of ammonium nitrate and fuel which vary according to the length of the hydrocarbon chain of the fuel used. percentages generally range from 90 percent to 97 percent ammonium nitrate and from 3 percent to 10 percent fuel, the most common being to prepare anfo on the basis of a mixture of 94 percent ammonium nitrate and 6 percent diesel 2. in that regard, the peruvian technical standard ntp 311.278 "explosives and blasting accessories. ammonium nitrate for anfo. requirements" defines anfo as a "product formed by the mixture of ammonium nitrate for anfo and fuel. the nominal composition by weight defined for anfo is: 94 percent ammonium nitrate and 6 percent diesel fuel no. 2". [0005] in some cases, in addition to ammonium nitrate, as part of the combustible agent for producing anfo, diesel fuel 2 is mixed with reduced quantities of residual oil equivalent to 60 percent diesel 2 and 40 percent residual oil, reaching in some cases a maximum of 50 percent diesel 2 and 50 percent residual oil. in other words, the prior art shows that residual oils have been used in the production of anfo but always in a smaller proportion as an additional component in the combustible agent along with diesel fuel 2. [0006] there is an unfavorable technical opinion with respect to the use of used, recycled or residual oil in the production of anfo because although it is widely known in the prior art that used oils have also been utilized as fuel, they have the drawbacks of reducing initiation and propagation sensitivity, detonation speed and energy yield. due to their high viscosities, they tend to remain on the surface of the ammonium nitrate granules occupying the macropores, so the complete or partial substitution of gas oil (diesel 2 or the like) with used oils is currently not justified from the economic viewpoint due to the drawbacks posed by these products. in that regard, see <http://www.monografias.com/trabajos83/explosivos-tipos-y-propiedades/explosivos-tipos-y-propiedades.shtml#ixzz2wbsuvi5l>. [0007] in the same sense, european patent ep2069266 teaches that although residual lubricating oil from vehicles used in the mine can be used as part of a water-in-oil emulsion to produce anfo, these oils are refractory and difficult to be absorbed into ammonium nitrate itself, so they must be diluted with diesel or with another virgin oil. it adds that when the anfo explosive comprises, as is typically the case, 5-7 percent by mass of lubricating oil with respect to ammonium nitrate, no more than 2-3 percent of the anfo explosive can be residual lubricating oil, the remaining 3-4 percent being required to be virgin oil or diesel or any other component (solvent) diluting it and allowing the absorption thereof into ammonium nitrate which is the most important oxidizing component of this explosive. [0008] in some cases, the attempt has been made to dilute the used oil in water, creating a water-in-oil emulsion to which emulsifiers and surfactants must be added (ep2069266), but there is no prior art which has completely eliminated the use of diesel 2 or a similar hydrocarbon, being substituted only with duly filtered and purified residual oil according to the method of the present invention. [0009] on the other hand, it can be easily seen that mines, as part of their operations, produce a large quantity of gallons of used or residual oil of different types and originating from different sources, such as engine oil, lubricating oil, etc. this oil is usually disposed of and requires certain management and handling conditions in the mine collection, removal and transfer process in order to avoid generating negative environmental impacts and to make the process safer, generating unwanted high costs. [0010] the foregoing thereby leads to the problem of eliminating the existing risk inherent in the removal of large quantities of highly contaminating recycled oil from the mine and the possibility of taking advantage of and reusing the residual oil that will be disposed of, instead of diesel 2, to produce anfo, in contrast to the teachings suggested in the prior art. detailed disclosure of the invention [0011] the present invention relates to a method for producing anfo on the basis of residual oils instead of diesel 2 based on the treatment of said residual oils by means of a prior double filtration and purification process, as well as the product resulting from said method. [0012] the aim of this invention is to utilize the residual oil produced in mines in large quantities as the only combustible agent in the production of anfo, generating cost savings by completely substituting diesel 2 and additionally eliminating the existing risk inherent in the removal of the residual oil from the mine and the negative impact that it can generate in the environment if it is not used appropriately. [0013] the developed technology allows filtering 30,000 gallons of recycled oil in a mobile unit especially designed for this purpose located at the same mine which will be referred to as a filter truck that will be in charge of purifying the residual oil obtained from the collection center by means of a double filtration system, to then supply it, instead of diesel 2, to mixing trucks for the production of anfo, so the environmental impact is minimized, the residual oil is utilized, increased safety is generated since the oil does not leak out of the mine and cost savings are achieved as diesel 2 is no longer used. [0014] in further detail, the method of the present invention involves the implementation of the following consecutive steps: the filter truck removing residual oil or recycled oil from the collection center. the product being introduced through a discharge hose into the manhole of the truck where the first 1 mm filtration is performed. the residual oil being transported to the points at which the explosive producing trucks are located. the filter truck pumping and driving the residual oil so that it goes through two 30-micron serial filters (second filtration) and then through a gallon counter. the already filtered residual oil being ejected with a swing gun to the fuel-mixture tank of the explosive producing truck. the explosive producing truck integrating the twice filtered residual oil into ammonium nitrate to produce anfo. [0021] to fulfill this function, the filter truck especially developed for this process is formed by the following components: cistern tank: used for storing residual oil. vent valve: used for introducing oxygen into the tank for the free flow of the residual oil, pneumatically operated. four manholes or upper access holes used for pre-filtering the recycled oil in a 1 mm mesh for solid retention. mixer: used for mixing and circulating the recycled oil. cleaning valves: used for extracting sludge formed at the bottom of the cistern tank as a result of the binding of particles that went through the first filter. pump: used for suctioning the residual oil and delivering it under pressure to the mixing truck. suction valve: used for moving the residual oil out to the pump. suction filter: up to 0.5 mm used for cleaning the residual oil. hydraulic motor: allows providing rotational movement to the residual oil pump. comptometer: allows viewing the gallons of residual oil that are being delivered to the mixing truck. dispensing valve: used for controlling the filling of the mixing truck tank with residual oil. chassis: vehicle used for transferring the components for residual oil storage and pumping. [0034] the technical problem that is being considered is solved based on the use of the method of treating and purifying residual oils through a double filtration process which allows using same as the only combustible component in the production of anfo, completely substituting diesel fuel 2. [0035] this method of treating and purifying residual oils in turn requires the intervention of a filter truck especially designed and implemented for fulfilling the purposes of this method as it has storage, loading, filtering (at two different levels), mixing, pumping, cleaning, venting, suctioning, measuring and unloading mechanisms. as mentioned, this novel recycling truck is in charge of purifying residual oils through a double filtration scheme at different times during the

method and pumping these residual oils, once they are suitable for said purpose, to the producing truck to be mixed with ammonium nitrate.[0036] since the method is largely carried out in the recycling truck, the present invention allows the implementation thereof in the mine itself without hav (Results 6)

Search FT=(ANFO and (waste or residual) and oil) (Results 356)

6:

Search 6 and PD<20140625 (Results 326)

7:

Search 7 and filter* (Results 134)

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Search 8 and (truck or camion or trailer) (Results 8)

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11:

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15:

Search 15 and PD<20140625 (Results 506)

16:

Search 16 and filter* (Results 191)

17:

Search 17 and (truck or camion or trailer) (Results 20)

18:

Title: CARBOHYDRATES

Abstract: Source: US2009312537A Carbohydrates having functional groups, such as carboxylic acid groups and methods of making such carbohydrates.

Classifications:

International (IPC 8-9): A01H5/00 A23J1/16 A23K1/00 A23K1/06 A23K1/12 A23K1/14 A23K1/16 A23K1/165 A23K1/18 A23K1/20 A23K10/00 A23K10/12 A23K10/30 A23K10/32 A23K10/33 A23K10/37 A23K20/00 A23K20/163 A23K20/189 A23K3/03 A23K40/00 A23K40/10 A23K50/10 A23K50/80 A23L1/025 A23L1/09 A23L1/10 A23L1/29 A23L19/00 A23L29/30 A23L33/00 A23L5/00 A23L5/30 A23L7/10 A61K31/191 A61K31/439 A61K31/475 A61K36/00 A61K36/899 A61K38/14 A61K38/48 A61K41/00 A61K8/97 A61P31/04 A61Q19/00 B01D39/04 B01D39/18 B01J19/08 B01J19/10 B01J19/12 B01J20/24 C07C1/20 C07H1/00 C07K2/00 C08B1/00 C08B15/04 C08B15/06 C08B3/00 C08B30/02 C08B37/00 C08B37/14 C08B5/04 C08H C08H1/00 C08H5/04 C08H8/00 C08J11/16 C08J3/28 C08J7/18 C08L1/02 C08L5/14 C08L9/02 C10G1/00 C10L1/02 C10L5/44 C12N1/14 C12N9/00 C12N9/04 C12N9/10 C12N9/20 C12N9/26 C12N9/34 C12N9/42 C12N9/56 C12P1/00 C12P1/02 C12P1/04 C12P13/00 C12P13/04 C12P13/06 C12P13/08 C12P13/12 C12P13/14 C12P13/20 C12P13/22 C12P13/24 C12P19/00 C12P19/02 C12P19/04 C12P19/14 C12P19/44 C12P19/52 C12P19/54 C12P19/62 C12P19/64 C12P29/00 C12P7/06 C12P7/08 C12P7/10 C12P7/16 C12P7/40 C12P7/42 C12P7/46 C12P7/52 C12P7/56 C12P7/62 C13K1/00 C13K1/02 C13K13/00 D21C3/02 D21C5/00 D21C9/00 G01N23/00 G01N33/00 G01N33/68 G21G5/00 (Advanced/Invention); A23K50/30 A23K50/40 A23K50/75 A23L3/26 B01J19/08 B60H1/00 C07C4/00 C08B1/00 C12N9/42 C12N9/44 C12P1/00 C12P19/00 C12P7/40 C12P7/42 C12P7/62 C12R1/885 D21C5/00 H01J37/00 H01J37/06 H01J37/317 (Advanced/Non-invention); A23K1/00 B01J19/00 C07H1/00 C08B1/00 C08B15/00 C08B3/00 C08B37/00 C08H8/00 C08H99/00 C08J11/00 C08J3/00 C10L5/00 C10L5/40 C12P19/00 C12P5/00 C13K1/00 D21C3/00 (Core/Invention); A23K B01J C08B C08H C08J C10L C12P C13K D21C (Subclass/Invention)

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Family:

Publication number	Publication date	Application number	Application date
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PatBase - US2009312537_AA

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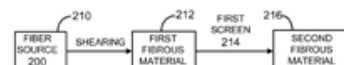


FIG. 1

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US20160040318	20160210	US20160183564	20160615	US20160183938	20160616
US20160183579	20160615	US20160234944	20160811	US20170431600	20170213
US20170657013	20170721				

Probable Assignee: XYLECO INC

Assignee(s): (std): KSILEKO INK ; MEDOFF MARSHALL ; XYLECO INC

Assignee(s): XYLECO INC WOBURN

Inventor(s): (std): MEDOFF MARSHALL ; MARSHALL MEDOFF

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR; STOLMAR AND PARTNER PATENTANWAELTE PARTG MBB; SIMPSON MARK GEOFFREY; POTTER CLARKSON LLP; DE ELZABURU ALBERTO; REINHOLD COHN AND PARTNERS; EVROMARKPAT; FULYA SUEMERALP; XYLECO INC; XYLECO INC CELIA LEBER; LEBER PATENT LAW PC; CELIA H; WILMER CUTLER PICKERING HALE AND DORR LLP; BABINEAU JAMES W 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 CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: REMOVAL OF ATMOSPHERIC POLLUTANTS FROM GAS, RELATED APPARATUS, PROCESSES AND USES THEREOF

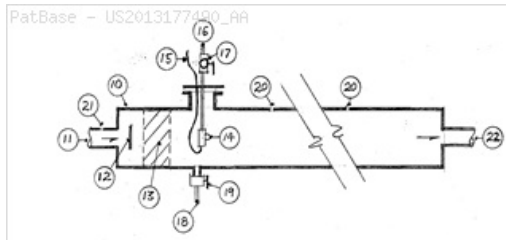
Abstract: Source: US2013177490A One aspect of the invention relates to a method comprising a single-stage conversion of NO and/or NO₂ in a first stream to one or more mineral acids and/or salts thereof by reacting with nonionic gas phase chlorine dioxide ((ClO₂)₀). Another aspect of the invention relates to a method comprising first adjusting the NO and NO₂ concentrations in a first stream to a molar ratio of about 1:1, and then reacting with an aqueous metal hydroxide solution (MOH). Another aspect of the invention relates to an apparatus that can be used to carry out the methods disclosed herein. The methods disclosed herein are unexpectedly efficient and cost effective, and can be applied to a stream comprising high concentration and large volume of NO and/or NO₂.

Classifications:

International (IPC 8-9): B01D53/00 B01D53/14 B01D53/30 B01D53/34 B01D53/50 B01D53/56 B01D53/60 B01D53/74 B01D53/76 B01D53/78 B01D53/79 B01F3/04 B01F5/04 B01F5/06 B01J19/00 B01J19/18 B01J19/24 C01C3/02 (Advanced/Invention); B01D53/34 B01D53/50 (Advanced/Non-invention)

CPC: B01J2219/00779 B01D53/60 B01D53/507 Y02C20/10 B01D2251/108 B01D2258/06 B01D2259/4508 B01J19/2405 B01D2251/602 B01D53/346 B01D53/76 B01D53/50 B01J19/1806 B01D53/79 B01D53/56 B01F3/04049 B01F5/0451 B01F5/0466 B01F5/0618 B01F2005/0631 B01F2005/0639 B01J19/006 B01D53/30 B01D2251/10 B01D2251/604 B01D53/1481 B01D53/1493 B01D2252/103 B01D2252/1035 Y02A50/2344

US: 1/1 422/108 422/111 422/119 422/168 423/210 423/235 423/242.1 423/243.01



Family:

Publication number	Publication date	Application number	Application date
AU2013267986 AA	20131205	AU20130267986	20130107
AU2013267986 BB	20171012	AU20130267986	20130107
AU2018200280 AA	20180201	AU20180200280	20180112
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EP2802407 A2	20141119	EP20130797766	20130107
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US2013177490 AA	20130711	US20120727512	20121226
US2014314648 AA	20141023	US20130126403	20130107
US2015056117 AA	20150226	US20140531943	20141103
US2015064087 AA	20150305	US20140537834	20141110
US2015224443 AA	20150813	US20150684948	20150413
US2015238896 AA	20150827	US20150666199	20150323
US2016016114 AA	20160121	US20150868163	20150928
US2016136574 AA	20160519	US20160005953	20160125
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US2017296963 AA	20171019	US20170637445	20170629
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WO13106379 A1	20130718	WO2013US20755	20130109
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Priority:

AU20130267986	20130107	AU20180200280	20180112	US20120584347P	20120109
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US20120727512	20121226	US20120715149P	20121017	US20130126403	20130107
US20140531943	20141103	US20130126403	20131213	US20140537834	20141110
US20150684948	20150413	US20150666199	20150323	WO2013US20586	20130107
WO2013US02586	20130107	US20150868163	20150928	US20160005953	20160125
US20150945590	20151119	US20160087713	20160331	US20170637445	20170629

Probable Assignee: ALLOYS CLEANING INC

Assignee(s): (std): ALLOYS CLEANING INC ; BARNHOUSE LARRY ; BARNHOUSE LARRY KENT ; MILLER ROGER ; RICHARDSON ROBERT GEORGE ; RICHARDSON ROBERT ; MILLIER ROGER GLENN ; MILLER ROGER GLENN ; SCIO TECH LLC ; MILLER ROGER GLEN ; SCIOTECH LLC

Assignee(s): ROGER GLEN MILLER ; RICHARDSON ROBERT7804 HIDDEN MEADOWS RDSHINGLETOWNCA96088US ; MILLIER ROGER GLENN2301 CALLE MELENOFULLERTONCA92833US ; BARNHOUSE LARRY KENT1902 PARK SKYLINE ROADSANTA ANACA92705US

Inventor(s): (std): RICHARDSON ROBERT GEORGE ; RICHARDSON ROBERT ; MILLIER ROGER GLENN ; MILLER ROGER GLENN ; MILLER ROGER GLEN ; BARNHOUSE LARRY KENT

Inventor(s): LARRY KENT BARNHOUSE ; BARNHOUSE LARRY KENT1902 PARK SKYLINE ROADSANTA ANACA92705US ; MILLIER ROGER GLENN2301 CALLE MELENOFULLERTONCA92833US ; RICHARDSON ROBERT7804 HIDDEN MEADOWS RDSHINGLETOWNCA96088US ; ROGER GLEN MILLER

Agent(s): GRIFFITH HACK ; BERESKIN AND PARR LLP SENCRL SRL ; BUCHANAN LUKE NOEL ; KNOBBE MARTENS OLSON AND BEAR LLP ; OBER KALER GRIMES AND SHRIVER ; ROYAL W ; FINLAYSON TOFFER ROOSEVELT AND LILLY LLP ; SANDRA ; HAMILTON JOSEPH P ; ALTMAN DANIEL E

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

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

Title: FACILE SYNTHESIS OF GRAPHENE, GRAPHENE DERIVATIVES AND ABRASIVE NANOPARTICLES AND THEIR VARIOUS USES, INCLUDING AS TRIBOLOGICALLY-BENEFICIAL LUBRICANT ADDITIVES

Abstract: Source: US2014134092A Methods of ex situ synthesis of graphene, graphene oxide, reduced graphene oxide, other graphene derivative structures and nanoparticles useful as polishing agents are disclosed. Compositions and methods for polishing, hardening, protecting, adding longevity to, and lubricating moving and stationary parts in devices and systems, including, but not limited to, engines, turbos, turbines, tracks, races, wheels, bearings, gear systems, armor, heat shields, and other physical and mechanical systems employing machined interacting hard surfaces through the use of nano-polishing agents formed in situ from lubricating compositions and, in some cases, ex situ and their various uses are also disclosed.

Classifications:

International (IPC 8-9): A61K8/11 A61Q17/04 A61Q19/00 B01J13/00

B62B3/00 B82B3/00 B82Y30/00 B82Y40/00 B82Y99/00 C01B
C01B31/02 C01B31/04 C09C1/56 C10M101/00 C10M101/02
C10M101/04 C10M103/02 C10M105/12 C10M109/00 C10M109/02
C10M125/02 C10M125/04 C10M125/10 C10M127/00 C10M127/02
C10M127/04 C10M127/06 C10M129/02 C10M129/04 C10M129/10
C10M129/12 C10M129/20 C10M129/26 C10M129/34 C10M129/50
C10M129/52 C10M129/54 C10M129/70 C10M133/06 C10M141/00
C10M141/02 C10M145/40 C10M159/00 C10M159/02 C10M159/12
C10M159/18 C10M169/04 C10M171/00 C10M171/06 C10M177/00
C22C33/00 C22C38/00 F01M9/00 F16D13/74

F16N15/02 (Advanced/Invention);

B82Y40/00 C09K3/14 C10N30/06 C10N40/04 C10N40/12 C10N40/25

C10N70/00 (Advanced/Non-invention);

B82B3/00 B82Y99/00 F01M9/00 (Core/Invention);

C01B (Subclass/Invention)

CPC: C10M125/02 C10M129/70 C10M125/04 A61Q19/00

Y10S977/843 Y10S977/902 A61K2800/10 Y10S977/755 C10M103/02 C10M177/00 C10M2201/0413 C10N2230/06

F16D2300/06 F16D2300/10 B82B3/00 B82B3/0009 C22C33/006 C22C38/00 B82Y30/00 A61K8/0241 A61K8/19 A61K2800/28

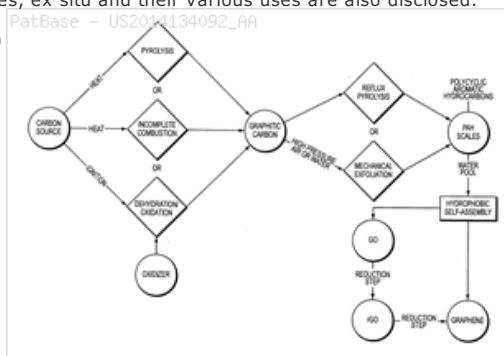
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C01B31/043 C01B32/198 C01B31/0446

European: R16D300/06 R16D300/10

US: 252/378R 423/415.1 423/445B 423/448 423/460 424/401 424/59 424/70.1 508/113 508/116 508/129 508/130 508/154
514/772 549/543 75/392 977/755 977/843 977/902



Family:

Publication number	Publication date	Application number	Application date
AP201307168 A0	20131031	AP20130007168	20120315
AR085413 AA	20131002	AR2012P100858	20120315
AU2012229052 AA	20120920	AU20120229052	20120315
AU2012229052 BB	20150521	AU20120229052	20120315
AU2015213412 AA	20150910	AU20150213412	20150814
AU2015213412 BB	20160922	AU20150213412	20150814
CA2857947 AA	20140602	CA20122857947	20120315
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CA2892532 AA	20120920	CA20122892532	20120315
CA2892532 C	20161025	CA20122892532	20120315
CN103534205 A	20140122	CN201280023584	20120315
EA201301031 A1	20140630	EA20130001031	20120315
ECSP13012961 A	20150430	EC2013SP12961	20131010
EP2686271 A1	20140122	EP20120757257	20120315
EP2686271 A4	20150121	EP20120757257	20120315
GC4810 A	20170126	GC2012P020763	20120317
ID201603157 A	20160429	ID2013W0004718	20120315
IL228350 A0	20131231	IL20120228350	20120315
IL228350 A1	20160131	IL20120228350	20120315
IN01904MN2013 A	20150612	IN2013MN01904	20131010
JP2014514231 T2	20140619	JP20130558182T	20120315
JP2015180746 A2	20151015	JP20150115554	20150608
JP5760101 B2	20150805	JP20130558182T	20120315
JP6033366 B2	20161130	JP20150115554	20150608
KR101479894 B1	20150106	KR20137027077	20120315
KR20140038384 A	20140328	KR20137027077	20120315
KR20140108732 A	20140912	KR20147022385	20120315
MX2013010521 A1	20140227	MX20130010521	20120315
MX341609 B	20160819	MX20130010521	20120315
NZ615842 A	20160826	NZ20120615842	20120315
SG10201601992S A1	20160428	SG20161001992	20120315
SG193354 A1	20131030	SG20130067384	20120315
TW201300318 A	20130101	TW20120108930	20120315
TW201510211 A	20150316	TW20140132716	20120315
TWI465395 B	20141221	TW20120108930	20120315
TWI551677 B	20161001	TW20140132716	20120315
US2014134092 AA	20140515	US20120583507	20120315
US2014227211 AA	20140814	US20140264360	20140429
US2015307971 AA	20151029	US20150703258	20150504
US2016130149 AA	20160512	US20160000929	20160119
US2017050855 AA	20170223	US20150117984	20150210
US8865113 BB	20141021	US20120583507	20120315
US9023308 BB	20150505	US20140264360	20140429
US9822008 BB	20171121	US20160000929	20160119
WO12125854 A1	20120920	WO2012US29276	20120315

WO15009758 A1	20150122	WO2014US46755	20140715
WO15120485 A1	20150813	WO2015US15288	20150210

Priority:

AU20120229052	20120315	AU20150213412	20150814	US20110452781P	20110315
CA20122857947	20120315	JP20130558182T	20120315	JP20150115554	20150608
US20110538528P	20110923	US20110568957P	20111209	US20110541637P	20110930
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US20110579993P	20111223	US20120583507	20120315	US20120596936P	20120209
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US20140938119P	20140210	WO2014US46755	20140715	US20150703258	20150504
US20160000929	20160119	US20130847351P	20130717	WO2015US15288	20150210
US20150117984	20150210	US20140264340	20140429		

Probable Assignee: PEERLESS WORLDWIDE LLC

Assignee(s): (std): PEERLESS WORLDWIDE LLC ; SHANKMAN RICHARD S

Assignee(s): PEERLESS WORLDWIDE LLC2536 NW 53RD STREETBOCA RATONFL33496-2204US

Inventor(s): (std): RICHARD S SHANKMAN ; SHANKMAN RICHARD S

Inventor(s): SHANKMAN RICHARD SUS

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; TORYS LLP; HYDEN MARTIN DOUGLAS; KADASA LAW FIRM; WOLFF BREGMAN AND GOLLER; TANAKA MITSUO; YAMAZAKI HIROSHI; DREW AND NAPIER LLC; ERNEST F; NANCY J; FINNEGAN HENDERSON FARABOW GARRRETT AND DUNNER LLP; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP; JENNIFER R; NANCY J FLINT ATTORNEY AT LAW PA; GARRET ARTHUR S ET AL; FLINT NANCY J; FLINT NANCY

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

Title: METHOD FOR ENHANCING SOIL GROWTH USING BIO-CHAR

Abstract: Source: US2012304718A A method is described for rendering char from a biomass fractionator apparatus (BMF char) suitable for addition to soil in high concentrations, the method relying on multiple processes comprising removing detrimental hydrocarbons from BMF char, removing adsorbed gases from BMF char, introducing microorganisms to the BMF char, and adjusting soil pH.

Classifications:

International (IPC 8-9): A01B49/06 A01C1/06 A01C21/00 A01G1/00 A01G17/02 A01N25/08 A1N25/08 A23K20/10 A23K20/20 A23K50/90 A61K33/44 A61K9/16 A61K9/50 A61L9/012 A61L9/014 B01J2/00 B01J2/28 B01J20/12 B01J20/20 B01J20/24 B01J20/28 B01J20/30 B01J20/32 C01B31/00 C01B31/02 C01B31/08 C01B32/00 C01B32/05 C02F1/28 C02F1/52 C02F9/00 C05B17/00 C05C5/00 C05C9/00 C05D9/00 C05D9/02 C05F11/00 C05F11/02 C05F11/08 C05F15/00 C05F17/00 C05F5/00 C05F9/04 C05G1/00 C05G3/00 C05G3/04 C05G5/00 C09K101/00 C09K17/00 C09K17/02 C09K17/04 C09K17/16 C09K17/32 C09K17/48 C09K17/50 C10B53/00 C10B53/02 C10B57/00 C10B57/02 C10L1/00 C10L1/10 C10L1/182 C10L1/185 C10L1/19 C12M1/00 C12N1/14 C12N1/16 C12N1/20 C12N11/14 C12P5/02 (Advanced/Invention); C05D9/00 C05D9/02 C09K101/00 (Advanced/Non-invention); C05F11/00 C05F11/08 (Core/Invention); C05F (Subclass/Invention)

CPC: A01N61/00 Y02P60/218 A01N25/08 C01P2006/11 C01P2006/14 A01B49/06 A01C21/00 A01C21/002 A01C1/06 C05G3/007 C05G3/0088 C12N1/14 C12N1/16 C12N1/20 A01C21/005 A61K9/5036 A61K9/167 A61K33/44 C05B17/00 C09K17/00 A61L9/012 A61L9/014 C05F17/0045 A23K20/10 B01J2/00 C05G3/0058 B01J2/28 B01J20/20 B01J20/3028 B01J20/3042 B01J20/3007 B01J20/24 B01J20/12 B01J20/3078 B01J20/28019 C05G3/0064 C05G3/0076 C05F17/009 C05F9/04 C01B32/05 A23K10/30 A23K40/10 A23K30/00 A23K50/90 A61L2/18 A61L2/22 C10B57/005 C05F17/0036 C09K17/40 A01G17/02 A01G13/0262 A23K10/37 C12N11/12 B01J20/28004 B01J20/28011 B01J20/28069 B01J20/3204 B01J20/3236 B01J20/3268 B01J2220/4831 B01J2220/485 B01J2220/4887 B01J2220/4893 Y02E50/343 Y02W30/47 Y02P60/877 C05D9/02 C05C5/00 C05F11/08 C05G3/04 C12N11/14 A23K50/00 C05G1/00 Y02A40/229 Y02A40/216 A61K9/1611 A23K10/18 A23K20/142 A23K20/158 A23K20/163 A23K20/174 A23K20/189 A23K20/30 A23K40/00 A23K40/30 A23K50/10 A23K50/20 A23K50/30 A23K50/75 A23K50/80 A61K9/0056 A61K9/1682 A61K47/02 Y02P20/145 Y02W30/43 C02F1/283 C02F1/288 C02F1/52 C02F2303/16 C05D9/00 A01G20/00 A01G22/00 C05F11/00 C05F11/02 C05G3/00 C05G3/0005 C09K17/02 C09K17/04 C10B53/02 C10B57/02 Y10S71/903 Y02E50/14 C05G3/0047 A01G2/00 A01G24/00

European: C05F11/02 C05F3/00

US: 423/445.00R 423/445R 47/58.1SC 71/1 71/11 71/23 71/24 71/31 71/32 71/54 71/6 71/63 71/7 71/903



Family:

Publication number	Publication date	Application number	Application date
AU2012268661 AA	20121213	AU20120268661	20120529
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AU2015328022 AA	20160407	AU20150328022	20151001
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BR112013031366 A2	20161129	BR20131131366	20120529
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CA2838485 AA	20131205	CA20122838485	20120529
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US2017096375 AA	20170406	US20160263227	20160912
US2017137332 AA	20170518	US20160268383	20160916
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WO16205547 A1	20161222	WO2016US37912	20160616
WO17044968 A2	20170316	WO2016US51368	20160912
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Priority:

US20110154213	20110606	US20110189709	20110725	US20110308801	20111201
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US20160383464	20161219	US20160348464	20161110	WO2012US44240	20120626

Probable Assignee: COOL PLANET ENERGY SYSTEMS INC

Assignee(s): (std): CHEIKY MICHAEL ; CHEIKY MICHAEL C ; COOL PLANET BIOFUELS INC ; JARAND MARK L ; COOL PLANET ENERGY SYSTEMS INC ; COOL PLANT ENERGY SYSTEMS INC ; SILLS RONALD A ; COOL PLANET ENERGY STYSTEMS INC

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Inventor(s): (std): BELCHER RICHARD W ; BELCHER RICHARD WILSON ; BONTCHEV RANKO ; BUEGE BRIAN ; BUTLER GREG DEAN ; BUTLER GREGORY DEAN ; CHEIKY MICHAEL ; CHEIKY MICHAEL C ; DOLINAR KEVIN DANIEL ; JARAND MARK L ; JARAND MARK L L ; KIM HAN SUK ; MACKAY JULIETTE ; SILLS RONALD A ; SILLS RONALD A A ; THOMPSON TIMOTHY ALAN ; TRAXLER VERN ; WAHLGREN NEIL CHRISTOPHER ; METIER MICHAEL WILLIAM ; DAUGAARD DAREN EINAR ; BONTCHEV RANKO PANAYATOV ; WILSON RICHARD W ; WAN HAIJUN ; SMITH MATTHEW WILLIAM ; MANZER LEO E ; MALYALA RAJASHEKHARAM ; CHEYNE CAMERON ; BONTCHEV RANKO PANAYOTOV

Inventor(s): MARK L JARAND ; MICHAEL CHEIKY ; RONALD A SILLS ; SILLS RONALD ; JARAND MARK

Agent(s): SPRUSON AND FERGUSON; AJ PARK; BALDWINS INTELLECTUAL PROPERTY; SMART AND BIGGAR; PERRY AND CURRIER; STAINTHORPE VANESSA JULIET; ZACCO SWEDEN AB; SHEPPARD MULLIN RICHTER AND HAMPTON; DAVID E; SHEPPARD MULLIN RICHTER AND HAMPTON LLP; DAVID; WILMER CUTLER PICKERING HALE AND DORR LLP; AVYNO LAW PC; HEISEY DAVID E; HAMILTON JENNIFER H ET AL; HAMILTON JENNIFER H

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

Title: Concentrated emulsion for making an aqueous hydrocarbon fuel

Abstract: Source: US2001005955A A process to make water-blended fuel by emulsifying the emulsifier in a portion of the fuel, then adding the water under high shear mixing to give a concentrated water fuel emulsion. The concentrated emulsion is then diluted with final portion of fuel using mixing or blending conditions resulting in an emulsified water blend fuel.

Classifications:

International (IPC 8-9): B01F17/00 B01F17/52 B01F3/08 B01J13/00 C10L1/00 C10L1/182 C10L1/224 C10L1/32 C10L10/18 F23K5/12 (Advanced/Invention); C10L1/00 C10L1/32 (Advanced/Non-invention); C10L1/32 (Core/Invention)

International (IPC 1-7): B01F17/00 B01F17/52 B01F3/08 B01J13/00 C08F8/30 C10L1/00 C10L1/022 C10L1/032 C10L1/18 C10L1/22 C10L1/32 C10M1/32 F23K5/12

CPC: C10L1/328 B01F3/0807 B01F5/10 B01F7/00766 B01F13/1013 B01F13/1016 C10L1/1266 C10L1/1824 C10L1/1826 C10L1/1881 C10L1/1888 C10L1/191 C10L1/198 C10L1/1985 C10L1/2222 C10L1/2225 C10L1/2227 C10L1/224 C10L1/231

European: B01F13/10B B01F13/10B2 B01F3/08C B01F5/10 B01F7/00G1A C10L1/32D M10L1/12E M10L1/182B2 M10L1/182B4 M10L1/188B M10L1/188H M10L1/198 M10L1/198F M10L1/19D M10L1/222B M10L1/222B2 M10L1/222D M10L1/224 M10L1/23B

US: 44/301 44/301P 44/302 44/302S 44/324 44/324S 44/325 44/325S 44/326 44/331 44/386 44/392 44/392S 44/403 44/408 44/408S 44/409 44/415 44/451 44/451S 44/629 44/639

PatBase - WU05052099_A1

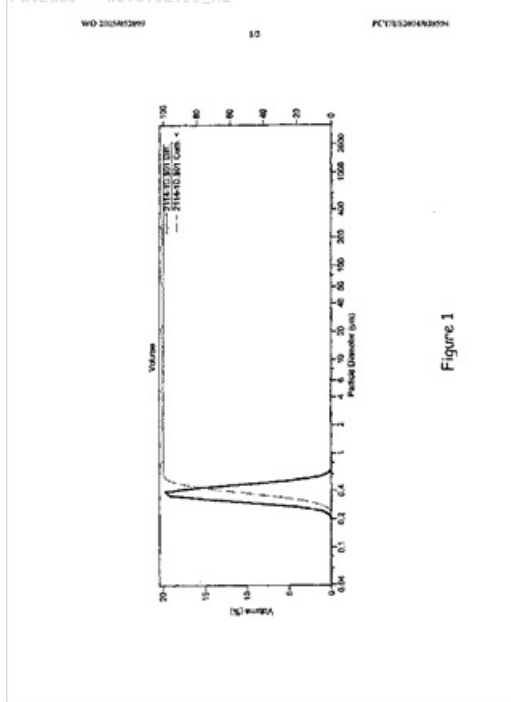


Figure 1

Family:

Publication number	Publication date	Application number	Application date
AT275615 E	20040915	AT20000944944T	20000628
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AU199958124 A1	20000403	AU19990058124	19990907
AU199958124 A5	20000403	AU19990058124	19990907
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AU200058961 A5	20010130	AU20000058961D	20000628
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BRPI0012359 A	20020611	BR2000PI12359	20000628
BRPI0116508 A	20040106	BR2001PI16508	20011130
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CL2002000017 A1	20021113	CL20020000017	20020104
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CN1484687 A	20040324	CN20018021730	20011130
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DE60013626 T2	20050922	DE20006013626T	20000628
DE69940609 D1	20090430	DE19996040609	19990907
EP1123365 A1	20010816	EP19990945543	19990907
EP1123365 B1	20090318	EP19990945543	19990907
EP1224248 A1	20020724	EP20000944944	20000628
EP1224248 B1	20040908	EP20000944944	20000628
EP1224248 B9	20050105	EP20000944944	20000628
EP1343859 A2	20030917	EP20010990836	20011105
EP1358304 A2	20031105	EP20010273734	20011130
ES2228563 T3	20050416	ES20000944944T	20000628
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IN00867DN2003 A	20070302	IN2003DN00867	20030604
JP2002525385 T2	20020813	JP20000570267T	19990907
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JP2004515602 T2	20040527	JP20020548059T	20011105
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MXPA03005046 A1	20040129	MX2003PA05046	20011105
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TH54400 A	20021212	TH20011005257	20011225
TH54493 A	20021217	TH20011004956	20011206
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TH57610 A	20030805	TH20021002310	20020624
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US6913630 BB	20050705	US20010892073	20010626
WO0015740 A1	20000323	WO1999US20436	19990907
WO0104239 A1	20010118	WO2000US17767	20000628
WO02061017 A2	20020808	WO2001US48381	20011213
WO02061017 A3	20030731	WO2001US48381	20011213
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WO0246336 A2	20020613	WO2001US46487	20011105
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WO03002693 A2	20030109	WO2002US18405	20020611
WO03002693 A3	20030821	WO2002US18405	20020611
WO05052099 A1	20050609	WO2004US38594	20041117
ZA200304337 A	20040624	ZA20030004337	20030603

Priority:

CA20032421473	20030310	US19980152852	19980914	US19990349268	19990707
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Probable Assignee: LUBRIZOL CORP

Assignee(s): (std): FILIPPINI BRIAN B ; LUBRIZOL CORP A CORP OF ST ; LUBRIZOL CORP ; THOMPSON CLAIRE L ; STECKEL THOMAS F ; MULLAY JOHN J ; SCHIFERL ELIZABETH A ; SWEET WILLIAM R ; RAY JAMES C

Assignee(s): SMITH MORRIS E ; LUBRIZOL CORP WICKLIFFE ; SCHIFERI ELIZABETH A ; SKOCH WILLIAM E ; ABRAHAM WILLIAM D ; BARR DOUGLAS M ; DALY DANIEL T ; DAVE HARSHIDA ; DAVE HARSHIDA C ; FAKULT JENNIFER N ; WESTFALL DAVID L ; ROWAN STEPHEN P ; MORETON DAVID J ; MCATEE RODNEY J ; LUBRIZOL A OF STATE OF OHIO CORP ; LUBRIIZOL CORP ; LUBRIZOL A OF STAT CORP ; LUBRIZOL A OF STATE OF CORP ; FORSBERG JOHN W ; GRAF ROBERT T ; LANGER DEBORAH A

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Inventor(s): SKOCH WILLIAM ; HARSHIDA C DAVES ; BARR ; RAY JAMES ; CLAIRE L ; DOUGLAS M ; DAVID J MORETON ; JOHN W FORSBERG ; RODNEY J MCATEE ; STECKEL THOMAS ; SWEET WILLIAM ; DOUGLAS M BARR ; CLAIRE L THOMPSON ; THOMPSON ; THOMAS F STECKEL ; ROBERT T GRAF ; ELIZABETH A SCHIFERL

Agent(s): CALLINANS ; FISHER ADAMS KELLY CALLINANS ; RIDOUT AND MAYBEE LLP ; HARNECKER ; CRISP DAVID NORMAN ET AL ; TERESAN W GILBERT LUBRIZOL CORP ; TERESAN W ; DAVID M ; GILBERT TERESAN W ; ESPOSITO MICHAEL F ; MICHAEL F

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

ZA ZM ZW

Title: FUEL COMPOSITIONS EXHIBITING IMPROVED FUEL STABILITY

Abstract: Source: US2004237384A A fuel composition of the present invention exhibits minimized hydrolysis and increased fuel stability, even after extended storage at 65 degrees Fahrenheit for 6-9 months. The composition, which is preferably not strongly alkaline (3.0 to 10.5), is more preferably weakly alkaline to mildly acidic (4.5 to 8.5) and most preferably slightly acidic (6.3 to 6.8), includes a lower dialkyl carbonate, a combustion improving amount of at least one high heating combustible compound containing at least one element selected from the group consisting of aluminum, boron, bromine, bismuth, beryllium, calcium, cesium, chromium, cobalt, copper, francium, gallium, germanium, iodine, iron, indium, lithium, magnesium, manganese, molybdenum, nickel, niobium, nitrogen, phosphorus, potassium, palladium, rubidium, sodium, tin, zinc, praseodymium, rhenium, silicon, vanadium, or mixture, and a hydrocarbon base fuel.

Classifications:

International (IPC 8-9): C10L1/02 C10L1/04 C10L1/08 C10L1/10 C10L1/12 C10L1/14 C10L1/16 C10L1/18 C10L1/182 C10L1/183 C10L1/185 C10L1/19 C10L1/20 C10L1/22 C10L1/222 C10L1/24 C10L1/26 C10L1/28 C10L1/30 C10L10/00 C10L10/02 F02B3/06 F02M25/00 (Advanced/Invention); C10L1/12 C10L1/14 C10L1/16 C10L1/18 C10L1/20 C10L1/22 C10L1/24 C10L1/26 C10L1/28 C10L1/30 F02B3/06 (Advanced/Non-invention); C10L1/00 C10L1/10 C10L10/00 F02M25/00 (Core/Invention); F02B3/00 (Core/Non-invention)

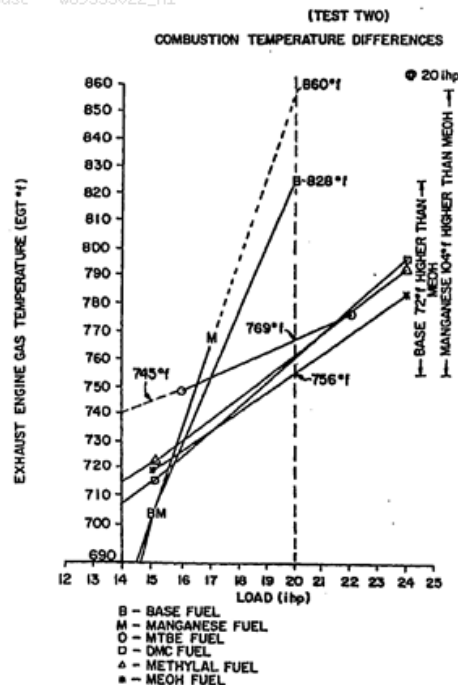
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CPC: C10L1/023 C10L1/026 C10L10/04 C10L1/143 F02M25/00 C10L1/10 C10L1/12 C10L1/1208 C10L1/1216 C10L1/1225 C10L1/1233 C10L1/1241 C10L1/125 C10L1/1258 C10L1/1266 C10L1/1275 C10L1/1283 C10L1/1291 C10L1/14 C10L1/1608 C10L1/1616 C10L1/1641 C10L1/165 C10L1/1691 C10L1/18 C10L1/1802 C10L1/1811 C10L1/1814 C10L1/182 C10L1/1824 C10L1/1828 C10L1/183 C10L1/1832 C10L1/1837 C10L1/1852 C10L1/1855 C10L1/1857 C10L1/188 C10L1/1881 C10L1/1883 C10L1/1886 C10L1/189 C10L1/19 C10L1/1905 C10L1/191 C10L1/1915 C10L1/1963 C10L1/1973 C10L1/198 C10L1/1985 C10L1/20 C10L1/201 C10L1/202 C10L1/203 C10L1/204 C10L1/205 C10L1/206 C10L1/207 C10L1/208 C10L1/221 C10L1/222 C10L1/2222 C10L1/2225 C10L1/223 C10L1/2235 C10L1/224 C10L1/226 C10L1/2283 C10L1/2286 C10L1/23 C10L1/231 C10L1/232 C10L1/233 C10L1/2335 C10L1/236 C10L1/238 C10L1/2383 C10L1/2387 C10L1/2406 C10L1/2431 C10L1/2437 C10L1/2462 C10L1/2633 C10L1/2641 C10L1/265 C10L1/285 C10L1/30 C10L1/301 C10L1/303 C10L1/305 C10L1/306 C10L1/308 C10L10/02 F02B3/06 F02B2275/32 Y02T10/142 C10L10/00

European: C10L1/02B C10L1/02D C10L1/10 C10L1/12 C10L1/14 C10L1/14B C10L1/19 C10L1/30 C10L1/30A C10L10/00 C10L10/02 F02M25/00 M10L1/10 M10L1/12 M10L1/12A M10L1/12B M10L1/12C M10L1/12D M10L1/12D1 M10L1/12D2 M10L1/12D3 M10L1/12E M10L1/12F M10L1/12M M10L1/12R M10L1/14 M10L1/16A M10L1/16B M10L1/16P1B M10L1/16P1D M10L1/16W M10L1/18 M10L1/182 M10L1/182B2 M10L1/182D M10L1/183 M10L1/183B M10L1/183F M10L1/185B M10L1/185B1 M10L1/185C M10L1/188 M10L1/188B M10L1/188B2 M10L1/188F M10L1/189 M10L1/18F M10L1/18M M10L1/18T M10L1/19 M10L1/196B M10L1/197B M10L1/198 M10L1/198F M10L1/19B M10L1/19D M10L1/19F M10L1/20 M10L1/20A M10L1/20B M10L1/20C M10L1/20D M10L1/20E M10L1/20P M10L1/20P1 M10L1/20P2 M10L1/222 M10L1/222B M10L1/222B2 M10L1/223 M10L1/223B M10L1/224 M10L1/226 M10L1/228B M10L1/228D M10L1/22W M10L1/23 M10L1/232 M10L1/233 M10L1/233B M10L1/236 M10L1/238 M10L1/2383 M10L1/2387 M10L1/23B M10L1/24A M10L1/24C M10L1/24C1 M10L1/24P M10L1/26B M10L1/26B1 M10L1/26B2 M10L1/28P M10L1/30 M10L1/30A M10L1/30A1 M10L1/30B M10L1/30B1 M10L1/30B2 R02B275/32 R02B3/06

US: 44/314 44/314P 44/32 44/320 44/320P 44/320S 44/354 44/356 44/357 44/358 44/358S 44/359 44/359S 44/36 44/360 44/360S 44/361 44/362 44/363 44/364 44/365 44/366 44/367 44/368 44/375 44/378 44/378S 44/385 44/385S 44/387 44/388 44/388S 44/435 44/435S 44/443 44/443S 44/444 44/444S

PatBase - W09533022_A1

**Family:**

Publication number	Publication date	Application number	Application date
AP790 A	19991216	AP19960000863	19950302
AP9600863 A0	19961031	AP19960000863	19950302
AU199521159 A1	19950918	AU19950021159	19950302
AU199526927 A1	19951221	AU19950026927	19950531
AU199864323 A1	19980703	AU19980064323	19971208
AU199935117 A1	19990819	AU19990035117	19990618
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CA2184490 C	20080708	CA19952184490	19950302
CA2194572 AA	19970107	CA19952194572	19950531
CA2274607 AA	19990609	CA19972274607	19971208
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DE69736123 D1	20060727	DE19976036123	19971208
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OA10373 A	20011108	OA19960060883	19960902
RU2003102524 A	20041010	RU20030102524	20030124
RU2205863 C2	20030610	RU19960121373	19950302
RU2328519 C2	20080710	RU20030102524	19950302
RU96121373 A	19990127	RU19960121373	19961002
US2004237384 AA	20041202	US20030722063	20031124
US2005044778 AA	20050303	US20030722127	20031124
US6652608 BA	20031125	US19970986891	19971208
US7572303 BB	20090811	US20030722063	20031124
WO9523836 A1	19950908	WO1995US02691	19950302
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WO9826028 A1	19980618	WO1997US22046	19971208

Priority:

AU19950021159	19950302	AU19990035117	19990618	US19940205945	19940302
US19940251723	19940531	US19940226490	19940411	US19940266490	19940411
WO1995US02691	19950302	US19950419464	19950410	WO1995US06758	19950531
US19970986891	19971208	US19960763696	19961209	US20030722063	20031124
US20030722127	20031124	WO1995US02961	19950302	WO1997US22046	19971208

Probable Assignee: OCTANE INT LTD

Assignee(s): (std): OCTANE INTERNATIONAL LTD ; ORR WILLIAM C ; WILLIAM C ORR ; ORR C W ; ORR UIL JAM S ; ORR UIL JAM K

Assignee(s): ORR UIL'JAM S. ; FOSS MFG ; FOSS MFG CO INC ; OCTANE INT ; OCTANE INT LTD

Inventor(s): (std): ORR WILLIAM C ; ORR UIL JAM S ; ORR UIL JAM K

Inventor(s): ORR UIL'JAM S. ; ORR UIL'JAM K. ; ORR WILLIAM ; WILLIAM C ORR

Agent(s): WRAYS; GOWLING LAFLEUR HENDERSON LLP; HOGAN AND HARTSON LLP

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 GH 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 ZW

Title: DESTRUCTION OF MIXED RADIOACTIVE **WASTE** BY CATALYZED CHEMICAL OXIDATION

Abstract: Source: US2012101324A Described are method of treating a radioactive organic **waste** stream comprising: (a) mixing a radioactive organic **waste** stream comprising organic compounds and radionuclides with phosphoric acid to form a reaction mixture; (b) heating the reaction mixture to a desired temperature in the presence of an oxidant to oxidize organic compounds present in the **waste** stream, and removing oxidized organic compounds from the reaction mixture; (c) optionally, adding a reducing agent to the reaction mixture to form insoluble radioactive metal phosphate compounds comprising one or more of the radionuclides, and separating the insoluble radioactive metal phosphate compounds from the reaction mixture; (d) optionally, adding a fluorine compound to the reaction mixture to react with uranium that may be present in the reaction mixture to form uranium hexafluoride, and removing uranium hexafluoride from the reaction mixture; (e) adding ammonia to the reaction mixture to neutralize phosphoric acid and to form ammonium phosphate complexes comprising one or more of the radionuclides, and separating the ammonium phosphate complexes from the reaction mixture to yield an ammonium phosphate liquor, wherein the method includes performing at least one of steps (c) and (d).

Classifications:

International (IPC 8-9): A62D3/30 A62D3/32 A62D3/33 A62D3/34

A62D3/35 A62D3/36 A62D3/37 A62D3/38 G21F9/00 G21F9/06

G21F9/08 G21F9/10 G21F9/12 (Advanced/Invention);

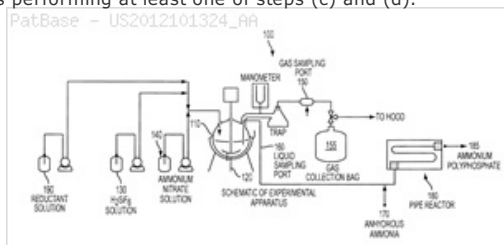
G21F9/06 G21F9/12 (Core/Invention)

CPC: G21F9/08 G21F9/10 G21F9/12 G21F9/125

European: G21F9/08 G21F9/10 G21F9/12 G21F9/12E

US: 588/18 588/18P 588/20 588/313 588/314 588/315 588/316

588/317 588/318 588/319 588/320



Family:

Publication number	Publication date	Application number	Application date
US2012101324 AA	20120426	US20090362107	20090129
US8354567 BB	20130115	US20090362107	20090129
WO09134294 A2	20091105	WO2009US00565	20090129
WO09134294 A3	20091230	WO2009US00565	20090129

Priority:

US20080024824P 20080130

US20090362107 20090129

Probable Assignee: INTEGRITY CONSULTING INC

Assignee(s): (std): DELANO ROBERT DALE ; INTEGRITY CONSULTING INC ; LEAVITT DAVID DONALD

Inventor(s): (std): LEAVITT DAVID DONALD ; DELANO ROBERT DALE

Agent(s): FOLEY AND LARDNER LLP; BRINCKERHOFF COURTENAY C 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 CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: AQUEOUS PHASE OXIDATION PROCESS

Abstract: Source: US2010254870A An improved oxidization process may be used to oxidize a wide variety of feedstocks. Oxidation takes place in a reactor where the feedstock is mixed with an oxidizing acid, such as nitric acid. The reaction mixture may also include a secondary oxidizing acid such as sulfuric acid as well as water and/or dissolved and mechanically mixed oxygen gas. The reactor may be maintained at an elevated pressure such as at least approximately 2070 kPa or desirably at least approximately 2800 kPa. The temperature of the reaction mixture may be maintained at no more than 210 degrees centigrade. In the various embodiments described herein, the process may include: combining recycled effluent from the reactor with the feedstock, combining one or more oxidizing acids with the feedstock, comminuting the feedstock to reduce the size of the particles, feeding the feedstock into the high pressure reactor at an approximately constant feed rate, dispersing oxygen gas from the headspace of the reactor into the reaction mixture, and/or removing all or almost all of the gas from the reactor through the liquid effluent.

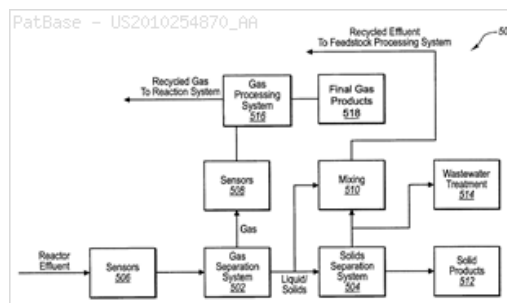
Classifications:

International (IPC 8-9): A62D3/00 A62D3/11 A62D3/30 A62D3/38 B01D53/56 B01J19/00 B09B3/00 C01B31/18 C01B32/40 C02F1/72 C02F101/30 C02F101/32 C02F11/06 C02F11/08 C05B17/02 (Advanced/Invention); C02F101/20 C02F101/30 C02F101/32 C02F103/20 C02F103/32 (Advanced/Non-invention)

CPC: C02F1/42 C02F1/727 C02F2209/005 C02F2209/05 C02F2209/06 C02F2103/20 C02F2301/066 C02F2303/26 C02F2209/02 C02F2209/03 B01J19/0006 Y10S210/908 Y02P20/145 C05F3/00 C05B17/02 C02F2103/32 C02F2101/20 Y02A40/213 Y02A40/205 B09B3/00 C02F1/72 C02F11/06 C05F7/00

European: B09B3/00 C02F11/06 C05F3/00 C05F7/00 M02F1/42 M02F1/72 M02F1/72S M02F103/20 M02F11/06 M02F209/00T M02F209/02 M02F209/03 M02F209/05 M02F209/06 M02F301/06D M02F303/26

US: 1/1 210/758 210/761 210/908 423/235 423/235P 423/418.2 423/418.200P 588/302 588/313 588/320 588/400 588/405 588/406

**Family:**

Publication number	Publication date	Application number	Application date
AU2010236942 AA	20101021	AU20100236942	20100323
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CA2756772 AA	20101021	CA20102756772	20100323
CA2756772 C	20170926	CA20102756772	20100323
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CN102438741 A	20120502	CN201080021951	20100323
EP2414097 A2	20120208	EP20100711122	20100323
JP2012522635 T2	20120927	JP20120503505T	20100323
JP2014144452 A2	20140814	JP20140032668	20140224
JP2016106023 A2	20160616	JP20150203411	20151015
KR20120013957 A	20120215	KR20117025442	20100323
MX2011010357 A1	20111216	MX20110010357	20100323
US2010254870 AA	20101007	US20090416412	20090401
US2010254871 AA	20101007	US20090416431	20090401
US2010254872 AA	20101007	US20090416438	20090401
US2010254881 AA	20101007	US20090416419	20090401
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US2013306575 AA	20131121	US20130936932	20130708
US2016159670 AA	20160609	US20160044354	20160216
US2017203983 AA	20170720	US20170478031	20170403
US7915474 BB	20110329	US20090416424	20090401
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US8168847 BB	20120501	US20090416438	20090401
US8481800 BB	20130709	US20090416431	20090401
US9272936 BB	20160301	US20130936932	20130708
US9611158 BB	20170404	US20160044354	20160216
US9902632 BB	20180227	US20170478031	20170403
WO10120450 A2	20101021	WO2010US28340	20100323
WO10120450 A3	20110120	WO2010US28340	20100323

Priority:

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Probable Assignee: EARTH RENEWAL GROUP LLC

Assignee(s): (std): DRAPER MALCOLM ; EARTH RENEWAL GROUP LLC ; FOSTER GEORGE G ; KESLER FREDERICK P

Inventor(s): (std): COMP SHANNON ; COMP SHANNON L ; MALCOLM DRAPER ; KESLER FREDERICK P ; GEORGE G FOSTER ; FREDERICK P KESLER ; FOSTER GEORGE G ; DRAPER MALCOLM

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; OYEN WIGGS GREEN AND MUTALA LLP; PORZIO RIOS AND ASOCIADOS; EVENS PAUL JONATHAN; ONO SHINJIRO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; YAMAMOTO OSAMU; TAKEUCHI SHIGEO; HOLLAND AND HART; HOLLAND AND HART LLP; NIELSON SCOTT C

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

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PH22415 A	19880912	PH19860034109	19860806
US4397675 A	19830809	US19810318343	19811105
US4402852 A	19830906	US19810331001	19811215
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US4445925 A	19840501	US19810318629	19811105
US4447253 A	19840508	US19810318368	19811105
US4460733 A	19840717	US19820445317	19821129
US4512813 A	19850423	US19830482942	19830407
US4522644 A	19850611	US19820453282	19821227
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US4686017 A	19870811	US19850750322	19850628
US4722986 A	19880202	US19850771259	19850830
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US4755265 A	19880705	US19870021201	19870303
US4801511 A	19890131	US19870021200	19870303
US4818269 A	19890404	US19830455268	19830103
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AU19870071396	19870410	BR1986PI02034	19860506	EP19860111365	19860818
EP19870300296	19870114	CA19860516227	19860819	CA19870533652	19870402
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Probable Assignee: ENTEK CORP

Assignee(s): (std): MOBAY CHEMICAL CORP ; UNION OIL CO ; YOUNG DONALD C

Assignee(s): ENTEK CORP ; MOBAY CHEMICAL A NJ CORP CORP ; UNION OIL CO CALIF ; UNION OIL CO OF CALIFORNIA A CORPOF CALIF ; UNION OIL CO OF CALIFORNIA ; UNOCAL CORP ; UNION OIL CO OF CALIFORNIA LOS ANGELES CALIFORNIA A ; UNION OIL CO OF CALIFORNIA LOS ANGELES CA A CORP O ; UNION OIL CO OF CALIFORNIA A CORP OF CA ; UNION OIL CO OF CALIFORNIA LOS ANGELES CA A CA COR ; UNION OIL CO OF CALIFORNIA A CA CORP ; UNION OIL CO OF CA ; UNION OIL CO OF

CALIFORNIA LOS ANGELES CALIFORNIA ; UNION OIL CO OF CALIFORNIA LOS ANGELES CALIF US ;
UNION OIL CO OF CALIFORNIA LOS ANGELES CALIF

Inventor(s): (std): DONALD CLIFFORD YOUNG ; DONARUDO SHII YANGU ; LIM IN C ; REINERT GERARD E ; YOUNG
DONALD C ; YOUNG DONALD CHRISTOPHER ; CARTER JR RUSSELL P

Inventor(s): DONALD C YOUNG

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY
LTD; FETHERSTONHAUGH AND CO; REINHOLD COHN AND PARTNERS

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

Title: DELIVERY SYSTEMS FOR MYCOTECHNOLOGIES, MYCOFILTRATION AND MYCOREMEDIATION

Abstract: Source: US2004211721A The present invention utilizes fungal spore mass or hyphal fragments in landscaping cloths, fiber substrates, paper products, hydroseeders and agricultural equipment. The fungi may include saprophytic fungi, including gourmet and medicinal mushrooms, mycorrhizal fungi, entomopathogenic fungi, parasitic fungi and fungi imperfecti. The fungi function as keystone species, delivering benefits to both the microsphere and biosphere. Such fungal delivery systems are useful for purposes including ecological rehabilitation and restoration, preservation and improvement of habitats, filtration of silts and sediments and restoration of abandoned logging roads.

Classifications:

International (IPC 8-9): A01C1/08 A01G9/08 A01N63/04 C02F103/06 C02F3/34 C12N1/00 C12N1/15 G06Q30/00

G06Q99/00 (Advanced/Invention);

C02F103/06 G06Q90/00 (Advanced/Non-invention);

A01C1/00 A01G9/08 A01N63/04 C02F3/34 C12N1/00 C12N1/15 G06Q30/00 G06Q99/00 (Core/Invention);

G06Q90/00 (Core/Non-invention)

International (IPC 1-7): A01N63/04 A01N65/00 C12N1/14 C12N1/15 C12N11/02

CPC: G06Q99/00 Y02W10/37 Y02W90/20 A01N63/04 B65D81/36 G06Q10/30 G06Q90/00 Y02P60/24 C12N1/14 G06Q30/06

A01G9/08 Y02P60/30

European: A01N63/04 B65D81/36 G06Q10/30 G06Q90/00 G06Q99/00

US: 210/601 210/610 210/611 435/254.1 435/254.100S 435/262 47/1.01R 47/1.01RS 47/11R 47/57.6 504/100 705/1 705/308 705/308P 705/500 705/500P

Family:

Publication number	Publication date	Application number	Application date
AU2002244133 AA	20020904	AU20020244133	20020219
CA2438232 AA	20030813	CA20022438232	20020219
US2004211721 AA	20041028	US20040852948	20040524
US2005176583 AA	20050811	US20030614906	20030707
US2008005046 AA	20080103	US20070899526	20070906
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US2008264858 AA	20081030	US20080214934	20080624
WO02065836 A2	20020829	WO2002US05495	20020219
WO02065836 A3	20031113	WO2002US05495	20020219

Priority:

US20010790033	20010220	US20020081562	20020219	US20040852948	20040524
US20030614906	20030707	US20070899526	20070906	US20070899562	20070906
WO2002US05495	20020219	US20080214934	20080624		

Probable Assignee: CISCO TECHNOLOGY INC

Assignee(s): (std): STAMETS PAUL ; STAMETS PAUL E ; STAMETS PAUL EDWARD

Assignee(s): CISCO TECHNOLOGY INC

Inventor(s): (std): STAMETS PAUL ; STAMETS PAUL E ; STAMETS PAUL EDWARD ; PAUL STAMETS

Agent(s): SMART AND BIGGAR; WILLIAM R HYDE

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

Title: METHOD OF PREPARING A SENSITISED **EXPLOSIVE**

Abstract: According to the present invention there is provided a method of preparing a sensitised **explosive** comprising the steps of providing thermally expandable microspheres which, when expanded, are suitable to reduce the density of an **explosive** and mixing the microspheres with steam to cause thermal expansion of the microspheres and to provide a resulting stream of wet expanded microspheres. The resulting stream of wet expanded microspheres is then introduced into an **explosive** to provide a sensitised **explosive**.

Classifications:

International (IPC 8-9): B01J13/02 C06B21/00 C06B23/00

C08J9/22 (Advanced/Invention);

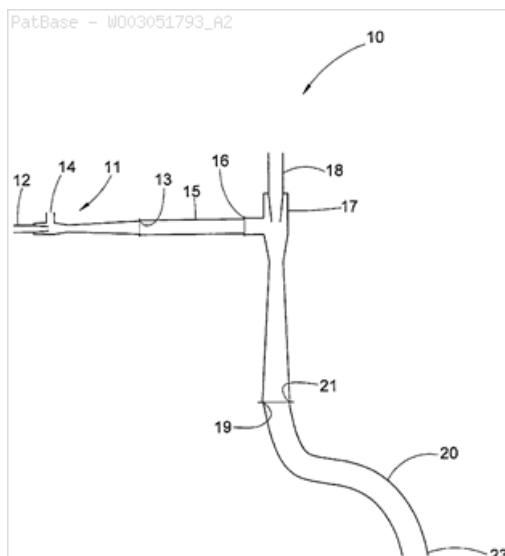
C06B23/00 (Core/Invention)

International (IPC 1-7): B01J13/02 C06B0/0 C06B0/00 C06B21/00

C06B23/00 C08J9/22

CPC: C06B23/003

European: C06B23/00C2



Family:

Publication number	Publication date	Application number	Application date
AR037780 AA	20041201	AR2002P104787	20021210
AU2002351427 AA	20030630	AU20020351427	20021129
BRPI0215007 A	20041228	BR2002PI15007	20021129
CA2470825 AA	20040616	CA20022470825	20021129
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CN1604885 A	20050406	CN20028025254	20021129
EP1458659 A2	20040922	EP20020787086	20021129
IN01527CN2004 A	20060210	IN2004CN01527	20040708
MXPA04005834 A1	20040913	MX2004PA05834	20021129
PE06852003 A1	20030813	PE20020001234	20021213
RU2004121964 A	20050610	RU20040121964	20021129
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Priority:

US20010339749P 20011217 WO2002ZA00191 20021129

Probable Assignee: SASOL CHEMICAL IND LTD

Assignee(s): (std): LOWNDS CHARLES MICHAEL ; SASOL CHEM IND PTY ; SASOL CHEMICAL IND LTD

Assignee(s): SASOL CHEMICAL IND PROPRIETARY LTD ; SASOL CHEMICAL INDUSTRIES LIMITED ; SASOL CHEMICAL INDUSTRIES PROPRIETARY LIMITED

Inventor(s): (std): CHARLES MICHAEL LOWNDS ; LOWNDS CHARLES MICHAEL ; MICHAEL LOWNDS CHARLES

Inventor(s): LOWDS CHARLES MICHAEL

Agent(s): GRIFFITH HACK; SMART AND BIGGAR; JOHANSSON

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

Title: METHOD AND SYSTEM FOR PRODUCING INTERACTIVE THREE-DIMENSIONAL RENDERINGS OF SELECTED BODY ORGANS HAVING HOLLOW LUMENS TO ENABLE SIMULATED MOVEMENT THROUGH THE LUMEN

Abstract: Source: US2001044576A A method and system are provided for effecting interactive, three-dimensional renderings of selected body organs for purposes of medical observation and diagnosis. A series of CT images of the selected body organs are acquired. The series of CT images is stacked to form a three-dimensional volume file. To facilitate interactive three-dimensional rendering, the three-dimensional volume file may be subjected to an optional dataset reduction procedure to reduce pixel resolution and/or to divide the three-dimensional volume file into selected subvolumes. From a selected volume or subvolume, the image of a selected body organ is segmented or isolated. A wireframe model of the segmented organ image is then generated to enable interactive, three-dimensional rendering of the selected organ.

Classifications:

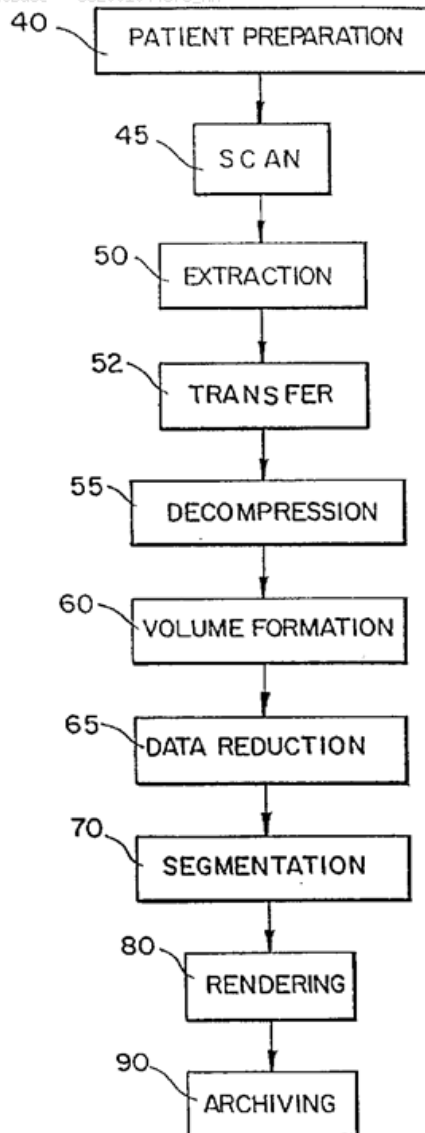
International (IPC 8-9): A47B81/06 A61B1/04 A61B5/00 A61B5/05 A61B5/107 A61B6/03 A62C39/00 A62C99/00 E04B1/98 F42D5/045 G06K9/00 G06K9/40 G06T1/00 G06T15/00 G06T15/08 G06T17/00 G06T17/20 G06T19/00 G06T5/00 G09B23/28 H04N5/74 (Advanced/Invention); A61B1/04 A61B6/03 G06T1/00 H04N5/74 (Advanced/Non-invention); A47B81/00 A61B5/05 A61B5/107 A62C99/00 F42D5/00 G06T17/00 G06T17/20 (Core/Invention); H04N5/74 (Core/Non-invention)

International (IPC 1-7): A47B5/00 A61B1/04 A61B5/00 A61B5/05 A61B6/03 E04B1/98 F41H5/24 F42D5/045 G06F17/00 G06F3/14 G06T1/00 G06T15/00 G06T17/00 G06T17/20 G06T17/40 G06T5/00 G06T7/00 G06T15/08 G06T17/00 G06T17/20 G06T19/00 G06T19/00 G06T2207/10136 H04N9/3141 G06T2207/10081 G06T2207/20012 G06T2207/30032 G06T2207/30064 G09B23/285 G06T19/003 G06T2210/08 G06T2210/41 G06T19/20 A61B5/415 G06T17/20 A61B6/466 A61B8/483 G06F19/321 G06T2200/04 G06T2207/10072 G06T2207/30028 A62C99/0072 F42D5/045 G06T7/11 G06T7/155 A61B5/1076 G06T7/0012 G06T15/08 G06T17/00 Y02A90/26 G16H50/50

European: A47B81/06 A61B5/107J A61B5/41J2 A61B5/41J8 A61B6/46B10 A61B8/48D A62C99/00B12 F42D5/045 G06F19/32A G06F19/34H G06T15/08 G06T17/00 G06T17/20 G06T19/00 G06T7/00B2 G06T7/00S1 G06T7/00S6 G09B23/28E K47B200/04 S06T200/04 S06T207/10072 S06T207/10081 S06T207/10136 S06T207/20012 S06T207/30028 S06T207/30032 S06T207/30064 T04N9/31R

US: 102/303 128/92 128/920 128/920S 169/47 169/54 312/7.2 312/7.200P 312/72 345/419 345/419P 345/419S 345/420 345/420P 345/420S 345/421 345/423 345/424 345/424S 345/427 345/429 345/433 345/606 348/E05.143 348/E5.143 348/E51.43S 378/1 382/128 382/130 382/131 382/132 382/154 382/173 382/181 382/190 382/199 382/232 382/233 382/260 382/260P 395/119 395/924 600/407 600/410 600/416 600/416P 600/420 600/425 600/425P 600/436 600/437 86/50 89/1.11 89/36.04 89/360.4

PatBase - US2001044576_A8



Family:

Publication number	Publication date	Application number	Application date
AT289104 E	20050215	AT19980906631T	19980223
AU199641380 A1	19960523	AU19960041380	19951027
AU199861804 A1	19980909	AU19980061804	19980223
AU200013073 A1	20000201	AU20000013073	19990617
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AU200015263 A5	20000619	AU20000015263	19991124
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US2002193687 AA	20021219	US20020109547	20020328
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US5782762 A	19980721	US19940331352	19941027
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Priority:

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WO1999US28030	19991124				

Probable Assignee: WALE FOREST UNIV

Assignee(s): (std):	BATTELLE MEMORIAL INST ; BATTELLE MEMORIAL INSTITUTE ; HUNT GORDON W ; GE YAORONG ; HEMLER PAUL F ; UNIV WAKE FOREST ; VINING DAVID J ; WAKE FOREST UNIV SCHOOL ; STELTS DAVID R ; SALIDO TIFFANY W ; WAKE FOREST UNIV HEALTH ; AHN DAVID K ; WAKE FOREST UNIVERSITY SCHOOL OF MEDICINE ; WAKE FOREST UNIVERSITY ; WAKE FOREST UNIV HEALTH FOREST UNIVERSITY SCHOOL ; WAKE FOREST UNIVERSITY WINSTON ; UNIV WAKE FOREST HEALTH ; WAKE FOREST UNIV HEALTH SCIENC ; WAKE FOREST UNIV WINSTON ; UNIV WAKE FOREST HEALTH SCIENCES
Assignee(s):	MITSUBISHI ELECTRIC US INC ; WALE FOREST UNIV ; WAKE FOREST UNIV WINSTON SALEM ; STELTS DAVID R JR ; WAKE FOREST UNIV SCHOOL OF MEDICINE ; WAKE FOREST UNIVERSITY WINSTON SALEM ; ALEXANDER GRAHAM H ; ANCILE PHARMACEUTICALS ; WAKE FOREST UNIV HEALTH SCIENCES ; WAKS FOREST UNIV ; WAKE FOREST UNIVERSITY HEALTH SCIENCES ; LOWE JERRY BAILEY ; GOLLY SCOTT M ; BUTZ DONALD J ; BUTZ JOHN S ; BURKY THOMAS E
Inventor(s): (std):	VINING DAVID J ; VINING J ; YAORONG GE ; TIFFANY W SALIDO ; THOMAS E BURKY ; STELTS DAVID R ; SCOTT M GOLLY ; SALIDO TIFFANY W ; PAUL F HEMLER ; LOWE JERRY BAILEY ; JOHN S BUTZ ; HUNT GORDON W ; HEMLER PAUL F ; GRAHAM H ALEXANDER ; GORDON W HUNT ; GOLLY SCOTT M ; GE YAORONG ; DONALD J BUTZ ; DAVID R STELTS ; DAVID K AHN ; DAVID J VINING ; BUTZ JOHN S ; BUTZ DONALD J ; BURKY THOMAS E ; ALEXANDER GRAHAM H ; AHN DAVID K ; AHN K ; HEMLER F ; HUNT W ; SALIDO W ; STELTS R
Inventor(s):	VINING DAVID ; AHN DAVID ; STELTS DAVID ; STELTS DAVID R JR ; SALIDO TIFFANY ; HEMLER PAUL

; HUNT GORDON

Agent(s):

DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; BORDEN LADNER GERVAIS LLP; FURMAN AND KALLIO; HACKNEY NIGEL JOHN; DANN DORFMAN HERRELL AND SKILLMAN; DANN DORFMAN HERRELL AND SKILLMAN PC; PIPER JR DONALD R; DONALD R; NIELS; DANN; HERRELL AND SKILLMAN PC; DANN DORFMANN HERRELL AND SKILLMAN PC

Designated states:

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

Title: FREE-FLOWING SULFUR TRANSPORT, STORAGE AND USE TO PRODUCE ENERGY, FERTILIZER OR HYDROGEN WITHOUT CARBON DIOXIDE

Abstract: Source: US2004247402A Elemental sulfur is combined with either liquid anhydrous ammonia, liquid sulfur dioxide, or both to form a solution or slurry which is transportable through pipelines and other transport vessels without a risk of clogging due to the environmental temperature drops that these vessels typically encounter. This unusual behavior and the advantages it offers arise from the discovery of unexpected solubility vs. temperature relationships of elemental sulfur in each of these two carriers. Among the advantages are significant improvements in the economics of many industrial chemical processes that involve the presence of sulfur either in elemental or chemically combined form, including natural gas or tar sands production and processing, hydrogen sulfide abatement, hydrogen production without carbon dioxide emissions, and sulfur extraction from ores, subterranean deposits, depositories, or fouled impaired industrial facilities. Large-scale ramifications for energy and fertilizer mineral resource utilization, greenhouse gas abatement, hydrogen economy, and nitrogen fertilizer production are taught.

Classifications:

International (IPC 8-9): B65G53/00 B65G53/30 C01B17/00

C01B17/02 C01B17/033 C01B17/05 C10L5/00

F17D1/12 (Advanced/Invention);

C10L3/10 (Advanced/Non-invention);

B65G53/00 C01B17/00 C10L5/00 F17D1/00 (Core/Invention);

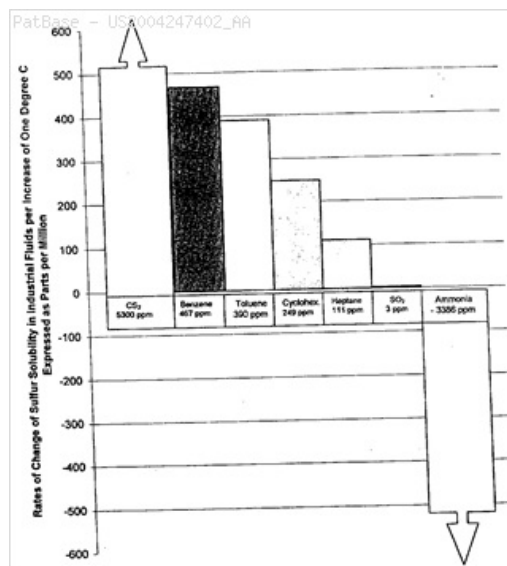
C10L3/00 (Core/Non-invention);

G21F (Subclass/Invention)

International (IPC 1-7): B65G53/00 G21F

CPC: Y02P20/128 C10L5/00 C01B17/02 C01B17/033

US: 406/197 423/574.1



Family:

Publication number	Publication date	Application number	Application date
AU2004246688 AA	20041216	AU20040246688	20040603
BRPI0410969 A	20060704	BR2004PI10969	20040603
CA2527949 AA	20051201	CA20042527949	20040603
CN1871168 A	20061129	CN200480020527	20040603
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IN230636 B	20090327	IN2006CN00053	20060104
MA27886 A1	20060502	MA20050028676	20051221
RU2005141520 A	20060610	RU20050141520	20040603
RU2323156 C2	20080427	RU20050141520	20040603
US2004247402 AA	20041209	US20030734741	20031211
US2006239785 AA	20061026	US20060473793	20060622
US7097392 BB	20060829	US20030734741	20031211
US7514064 BB	20090407	US20060473793	20060622
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WO04109714 A3	20060615	WO2004US17644	20040603
ZA200509715 A	20070328	ZA20050009715	20040603

Priority:

US20030476082P 20030604
WO2004US17644 20040603

US20030734741 20031211

US20060473793 20060622

Probable Assignee: STECHER PROPRIETARY INTEREST

Assignee(s): (std): STECHER DANIEL G ; STECHER PROPRIETARY INTERESTS ; STECHER PROPRIETARY INTERESTS L L C ; STECHER PROPRIETARY INTERESTS LLC ; STICHER PROPRAJEHTARI INTEREST

Assignee(s): STICHER PROPRAJEHTARI INTERESTS LLK ; STICHER PROPRAJEHTARI INTERESTS L L K ; STECHER PROPRIETARY INTEREST

Inventor(s): (std): DANIEL G STECHER ; STECHER DANIEL G ; STICHER DEHNIEL DZH

Inventor(s): STECHER DANIEL

Agent(s): GRIFFITH HACK; FETHERSTONHAUGH AND CO; TOWNSEND AND TOWNSEND AND CREW LLP; M HENRY; HEINES M HENRY

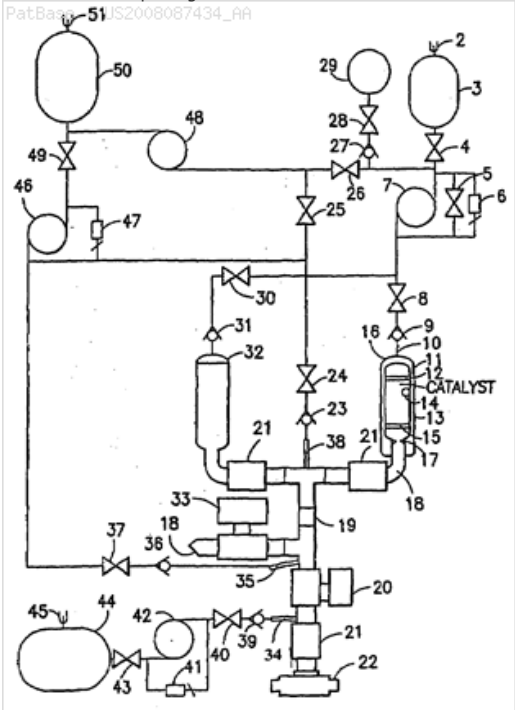
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Title: ENGINE/STEAM GENERATOR WITH AFTERBURNER

Abstract: Source: US2008087434A An engine/steam generator which converts hydrogen peroxide to superheated steam and oxygen and having an afterburner that together with a reducing agent, utilizes the oxygen, thereby supplying oxygen free super-heated steam under pressure for **oil** well stimulation. Fluids such as water and KH30 can be injected into the engine/steam generator. The invention also relates to an apparatus and methods of incineration, soil remediation, land fill remediation, controlled vault burning, chemical atomization/vaporization, home heating, generation of electricity, diesel engine exhaust cleaning, steam turbine, gas path cleaner for jet engines, steam cleaning, natural gas engine power booster emission reducer, chemical storage tank cleaning, portable gas drive, and metal tempering.

Classifications:

International (IPC 8-9): B09C1/06 E21B36/00
E21B37/08 (Advanced/Invention);
B09C1/00 E21B36/00 E21B37/00 (Core/Invention)
CPC: B08B9/027 B08B9/093 B08B9/0933 B09C1/06 E21B43/24
F22B3/02 F22G1/14 F24J1/00
European: B08B9/027 B08B9/093 B08B9/093B B09C1/06
E21B43/24 F22B3/02 F22G1/14 F24J1/00
US: 166/312 166/53 166/57 166/65.1 166/90.1 169/69 405/128.4



Family:

Publication number	Publication date	Application number	Application date
US2008087434 AA	20080417	US20060580519	20061013
WO08048817 A2	20080424	WO2007US80777	20071009
WO08048817 A3	20081127	WO2007US80777	20071009

Priority:

US20060580519 20061013

Probable Assignee: UNITED ENERGY CORP

Assignee(s): (std): CIOLETTI KENNETH R ; CIOLETTI MATTHEW ; WILEN RONALD ; UNITED ENERGY CORP

Inventor(s): (std): CIOLETTI KENNETH R ; CIOLETTI MATTHEW ; WILEN RONALD

Agent(s): KATTEN MUCHIN ROSENMAN LLP; SHAKIR HASSAN A ET AL

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

Title: COMPOSITIONS FOR CULTIVATING SOIL WITH REDUCED FERTILITY

Abstract: The invention concerns a composition in particular for stimulating germination, sprouting and growth in soil with reduced fertility, comprising at least one hydrophilic substance optionally containing a limited amount of water, characterised in that it also comprises at least any one of the following elements alone or in combination: nutrients; soil improving products; parasiticides; hormones stimulating root growth capacity; products adjusting soil salinity; herbicides; growth-regulating products; disease-curing products; odorizing products; fertilisers with slow diffusion; antifrost products; products for activating sap flow; products comprising bacteria for treating water, soil, **wastes** and/or the like; fire-proof products; the hydrophilic substance being capable of trapping at least one of said products and of reducing their **filtering** into the soil or evaporating into the air.

Classifications:

International (IPC 8-9): C05F11/00 C05F5/00 C05G3/00 C09K3/32 (Advanced/Invention);

C05F11/00 C05F5/00 C05G3/00 C09K3/32 (Core/Invention)

International (IPC 1-7): A01C1/00 A01C21/00 A01G23/00 A01G31/00 A01G7/00 A01G9/10 A01N25/00 B01J20/00

C05F11/00 C05F5/00 C05G3/00 C09K3/32

CPC: Y02P20/145 C09K3/32 C05F5/002 C05F11/00 C05G3/0052 Y02A40/21

European: C05F11/00 C05F5/00B C05G3/00B6 C09K3/32

Family:

Publication number	Publication date	Application number	Application date
AU199891709 A1	19990510	AU19980091709	19980921
FR2769855 A1	19990423	FR19970013029	19971017
FR2769855 B1	20010622	FR19970013029	19971017
WO9920581 A1	19990429	WO1998FR02012	19980921

Priority:

FR19970013029 19971017 WO1998FR02012 19980921

Probable Assignee: BARBARY SALAH

Assignee(s): (std): BARBARY SALAH ; SALAH BARBARY

Inventor(s): (std): BARBARY SALAH ; SALAH BARBARY

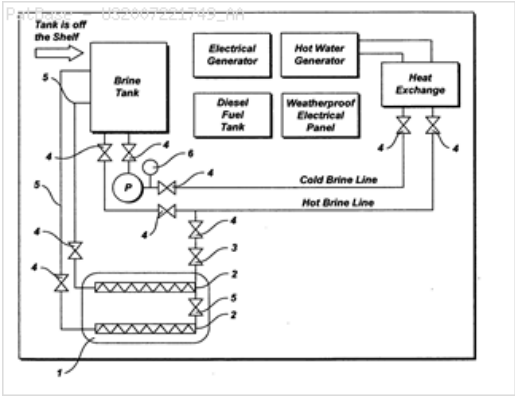
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Title: HEATED SALTWATER HIGHWAY DEICING MACHINE

Abstract: Source: US2007221749A My invention is different in that it uses high temperature water to dissolve pure evaporated salt blocks to create a highly saturated salt brine to provide highway deicing and snow control. with less salt used for deicing and snow removal using ordinary plain molasses may also be added to the salt brine to enhance its ability to stick on the road. Rock salt is not pure salt as it contains impurities that are inherent in its composition which give it its grey color and has pieces of rock in it from the mining process. Rock salt is also temperature dependent as it does not work very well below freezing temperatures with out calcium chloride or magnesium chloride additives. The heated salt brine will be able to melt ice and snow quickly and stay in place to continue its deicing with the molasses and will not drift away due to the use of the spray curtain.

Classifications:

International (IPC 8-9): A01G25/09 B05B1/20 B05B9/03 (Advanced/Invention); A01G25/00 B05B1/14 B05B9/03 (Core/Invention)
CPC: E01H10/005 E01H10/007
European: E01H10/00C E01H10/00D
US: 239/1 239/128 239/132.1 239/146 239/155 239/159 239/172 239/332



Family:

Publication number	Publication date	Application number	Application date
US2007221749 AA	20070927	US20060435641	20060517
US7721975 BB	20100525	US20060435641	20060517

Priority:

US20060435641 20060517 US20060785934P 20060324

Probable Assignee:

ZAHARIS LEON EDWARD

Assignee(s): (std):

ZAHARIS LEON E ; ZAHARIS LEON EDWARD

Inventor(s): (std):

ZAHARIS LEON E ; ZAHARIS LEON EDWARD

Inventor(s):

ZAHARIS LEON

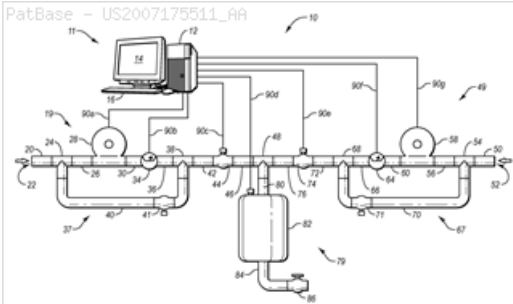
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Title: BLENDING FACILITY SET-UP AND OPERATION

Abstract: Source: US2007175511A A continuous blending system can be used to prepare burner fuel or blasting agent, and includes a mixer, a first hydrocarbon system, a second hydrocarbon mixer, and a computing system. The mixer is configured for continuously mixing a continuous supply of a first hydrocarbon and a continuous supply of second hydrocarbon to provide a mixed hydrocarbon at a flow rate and a predefined ratio of first and second hydrocarbon. The first hydrocarbon system provides a continuous flow of first hydrocarbon into the mixer. The second hydrocarbon system provides a continuous flow of second hydrocarbon system into the mixer. The computing system is in communication with and configured for simultaneously controlling the first and second hydrocarbon systems in order to obtain the mixed hydrocarbon at the predefined flow rate and at the predefined ratio of first and second hydrocarbon.

Classifications:
International (IPC 8-9): E03B1/00 (Advanced/Invention); E03B1/00 (Core/Invention)
CPC: G05D11/132 Y10T137/0346
European: G05D11/13B2
US: 137/6 208/370



Family:

Publication number	Publication date	Application number	Application date
US2007175511 AA	20070802	US20070626311	20070123

Priority:
US20060764102P 20060201 US20070626311 20070123

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