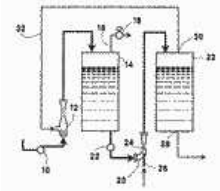
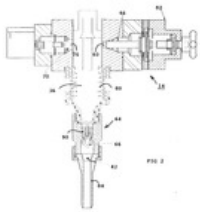
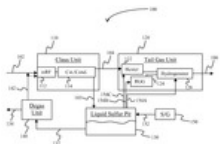
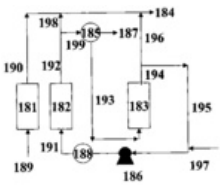
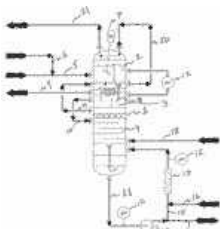
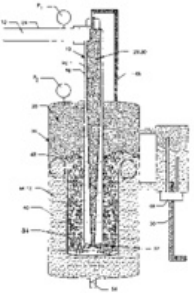
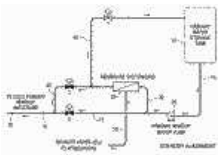
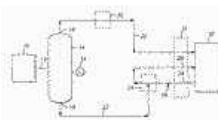
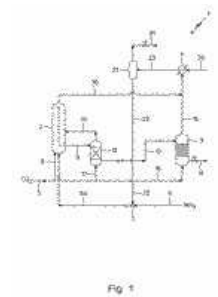
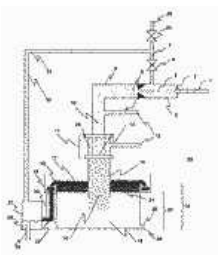
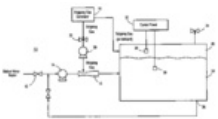
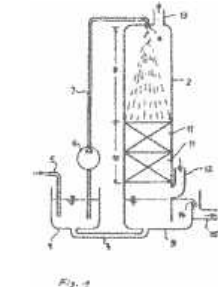
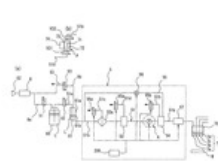


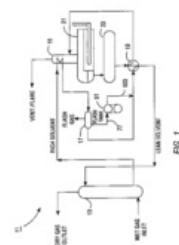
35 results for ((eductor+)/TI/AB/CLMS/DESC/ODES/OBJ/TX AND (mix+)/TI/AB/TX/CLMS/DESC/ODES/OBJ/ADB/KEYW/ICLM AND (recycl+)/TI/AB/CLMS) AND (B01D-019/00)/IPC - Collection: FAMPAT

#	  Title	Publication number	Publ. date	Applicant/Assignee	
1.	Stripping of volatiles from liquid	CA2130151	1995-02-17	PRAXAIR TECHNOLOGY*	
Apparatus and method for stripping of a volatile from a liquid with a stripping gas. Feed liquid (10) is mixed (12) with recycled stripping gas (32). This first mixture is separated, and the separated liquid (20) is mixed with fresh stripping gas (26). The second mixture is separated into liquid product (28) and the gas is recycled (30,32) for stripping. <IMAGE>					
2.	Vacuum mixing device for reactive casting of plastics	FR2789621	2000-08-18	SECMER* SECMER GRENOBLE	
The control valve (70) places the mixing chamber volume (36) under vacuum, before admission of the base materials, when the shut-off valve (64) is in the closed position. Preferred features: The shut-off valve includes a non-return valve (66) biased to open automatically as soon as the internal pressure exceeds a preset threshold. This valve is held closed resiliently, and/or by reduced pressure in the mixing chamber. Closure of the non return valve is by a spring acting on a membrane or deformable tube. The control valve is connected to a purge circuit with vacuum pump. The control includes a first solenoid valve operating valve actuators, when the control valve is open to apply vacuum. These valves are opened when the control valve closes and aspiration of air contained in the mixing chamber, is complete. Valves are controlled pneumatically, electrically or hydraulically in accordance with their type. Further circuits with valves, recycle base material to the stock tanks when the inlet valves are closed. A solvent-flushing valve cleans the mixing chamber interior, at the end of the casting cycle. Fins (80) in the mixing chamber cause static mixing of the base material. It also contains a motor-driven turbine with vertical axis, for dynamic mixing.					
3.	Configurations and methods of treatment of sulfur-containing vent gases	US20130071315	2013-03-21	FLUOR TECHNOLOGIES*	
Sulfur emissions from liquid sulfur are reduced, or even entirely avoided by degassing the liquid sulfur at pressure in an out-of-pit vessel and by sweeping the rundown pit (or vessel) with a sweep gas that is non-poisonous for a hydrogenation catalyst. Acid gases from degassing are fed at pressure to the Claus unit, while sweep gases are fed to the tail gas treatment unit to substantially recycle the acid gases to extinction. In preferred plants and methods, motive fluids and booster eductors or compressors are not needed, and incineration of the acid gases can be avoided.					
4.	Low cost polyester process using a pipe reactor	WO200246269	2002-06-13	EASTMAN CHEMICAL GALAXY POWER GRUPO PETRO TECHNOLOGY TIMEX S S BETTER S PETROTEMEX*	
A process for introducing a component into a reaction fluid and/or process fluid comprising the steps of: (a) providing a recirculation loop having a influent and an effluent wherein the influent is in fluid communication with a reaction fluid; (b) recirculating at least a portion of the reaction fluid of step (a) through the recirculation loop wherein the reaction fluid flowing through the circulation loop is a recirculation fluid; (c) decreasing the pressure of the recirculation fluid of step (b) with at least one pressure decreasing device at at least one point in the recirculation loop; and (d) feeding a component into the recirculation loop adjacent to or at the pressure decreasing device of step (c), to thereby introduce a component into the reaction fluid.					
5.	Apparatus for treating a waste stream	US20100122950	2010-05-20	COMPANY MERIKEMU MERICHEM* MERICHEM KOMPANI	
An integrated unit operations for the treatment of a waste stream, such as spent caustic, is provided in a single vertical vessel (1) having at least three separate zones: a mixing (2), a settling (3), and a mass transfer (4) zone.					
6.	Process for mixing treatment additives to contaminated liquids	CA2455127	2002-12-24	CLEAN WATER TECHNOLOGY* CLEAR WATER TECHNOLOGY* DWAIN & MORSE Davain. E. Morse FRIEDMAN JERRY KELLEY SCOTT W KELLY BAUERSFELD LOWRY & KELLEY SMART PARTS ZPM	
To optimally mix treatment additives to a contaminated liquid, treatment additives are selected.A mixing energy requirement of the contaminated liquid and treatment additives is then determined by mixing the treatment additives over a range of time and mixing speeds, and measuring turbidity to determine the mixing time and speed which results in the lowest turbidity.A low mixing energy requirement requires a lower mixing time and mixing speed than a higher mixing energy requirement.The contaminated liquid and selected treatment additives are then directed into a mixing system (32) including at least one hydrocyclone (20).Each hydrocyclone (20) has an inlet aspect ratio, a barrel length and diameter selected based upon the mixing energy requirement determination.Altering the aspect ratio, diameter, and length of the hydrocyclone results in different mixing speeds and mixing time, which can be optimized for the given contaminated liquid and treatment additives.					

7.	Removal of dissolved gases in makeup water of a nuclear reactor	US20120055330	2012-03-08	FAUSKE WESTINGHOUSE ELECTRIC* WESTINGHOUSE ELETRIC	
8.	Subsea flow enhancer	US5490562	1996-02-13	MASCOTECH PARAGON ENGINEERING SERVICES*	
9.	Improvement to the high-pressure loop in a process for synthesis of urea	EP2199279	2010-06-23	CASALE UREA CASALE*	
10.	Process for microalgae conditioning and concentration	WO2008156835	2008-12-24	EASTMAN CHEMICAL RENEWABLE ALGAL ENERGY*	
11.	Apparatus and method of ballast water treatment	US20030205135	2003-11-06	HRL LABORATORIES MCNULTY MCNULTY PETER DRUMMOND MCNULTY, PETER DRUMMOND NEI TREATMENT SYSTEMS* PD PD MCNAIR PETER MCNULTY	
12.	Extraction process and apparatus for carrying out the process	DE3823703	1990-01-18	PREUSSAG*	
13.	Liquid treatment device and liquid treatment method	WO2013129252	2013-09-06	TOKYO ELECTRON*	

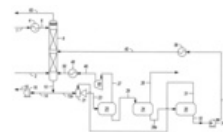
14. [Method and apparatus for removing foaming contaminants from hydrocarbon processing solvents](#) US6080320 2000-06-27 MPR SERVICES CHARLOTTE NC*

A column of solvent containing foaming contaminants is provided. Gas is injected into the solvent in the column so as to generate foam in the column. Foam generation continues so as to push the foam up in the column, wherein much of the solvent that is in the foam is allowed to drain back down into the column. The drier foam is pushed out of the column and into a container. The foam is broken up into gas and the liquid foaming contaminants. The gas is vented and recirculated for injection into the column for foaming purposes. A portion of the liquid in the container is recirculated as a spray, which spray breaks up the foam. Another portion of the liquid in the container is recirculated into the column as reflux. Another portion of the liquid in the container is removed from the system in order to remove foaming contaminants therefrom.



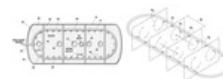
15. [Use of solvent stream as motive fluid in ejector unit for regenerating solvent for absorption unit](#) TW200940152 2009-10-01 DAVIS LAMAR A UOP* UOP*

The invention provides a process and system for regenerating a solvent used to remove carbon dioxide from feed gases, such as natural gas and synthesis gas. The process and system employs an **eductor** or ejector as an alternative to the prior art's vacuum compressor that is placed on the vapor stream from a vapor flash. This process and system saves substantial capital and operating costs over the prior art.



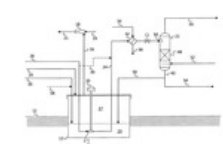
16. [Interface and mud control system and method for refinery desalters](#) CA2850424 2013-04-04 CAMERON INTERNATIONAL*

A method and system for controlling an interface emulsion layer and mud layer within a desalter vessel includes injecting a water flow through a plurality of nozzles arranged about a piping circuit located in the brine water layer. Each nozzle is oriented toward an interior space of the desalter vessel and is arranged oblique to the piping circuit. The water flow through the plurality of nozzles causes a horizontal and vertical rotation of a volume of water that is effective for suspending solids in the water and promoting a collapse of the interface emulsion layer. The water flow through each nozzle, which may be a **recycled** water flow, is preferably in a range of 1 to 3 fpm and each nozzle is preferably oriented at an angle of about 15° and 60° in a horizontal plane and a downward angle of about 15° and 60° in a vertical plane.



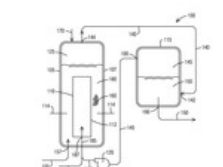
17. [High efficiency process for degassing of hydrogen sulfide from liquid sulfur](#) CA2978238 2016-09-15 NASATO CONSULTING* WALLY PARSONS EUROPE WORLEYPARSONS EUROPE*

Processes and systems for degassing liquid sulfur may include **mixing** a gas, such as air, with a liquid sulfur **mixture** comprising sulfur, hydrogen sulfide, and hydrogen polysulfides to form a sulfur-gas **mixture**. The sulfur-gas **mixture** may then be transported to a separator, storage vessel or storage tank for separating the sulfur-gas **mixture**.



18. [Filter bed backwash system and process with recycled gas](#) US20180078880 2018-03-22 SIEMENS ENERGY*

A system and method for **recycling** gas in a backwash process is provided. The backwash process removes contaminants from a bed of filtration media. The method includes generating a **mixed** liquid-gas stream from the backwash process, withdrawing the **mixed** liquid-gas stream from the backwash process, separating the **mixed** liquid-gas stream into a liquid and a gas, and **recycling** at least a portion of the separated gas to the backwash process.



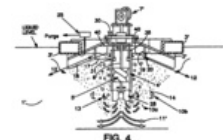
19. [A modular mass transfer and phase separation system](#) WO200232536 2002-04-25 PROSCON SYSTEMS*

A modular mass transfer and phase separation system for a fluid comprising a mass transfer component and a second component from which the mass transfer component is separable by mass transfer. The system has a first stage and at least one later stage each stage comprising: co-current contacting means for co-currently contacting at least two fluid streams to effect mass transfer of the mass transfer component and phase separation means for separating phases from the co-currently contacted fluid streams. The stages are in fluid communication so that at least one fluid stream which has been separated by phase separation in the early stage is communicable for co-current contacting and for phase separation in a later stage. At least one fluid stream which has been separated by phase separation in a later stage is communicable in a counter-current direction for co-current contacting and for phase separation in the early stage. The system may be modular. The invention also relates to a method of effecting mass transfer and phase separation utilised in the above system.



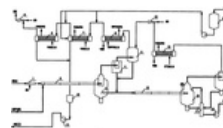
20. [Enhanced gas dissolution](#) CA2292113 2000-06-02 HITACHI PRAXAIR TECHNOLOGY*

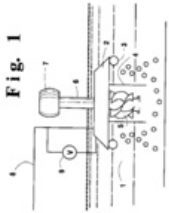
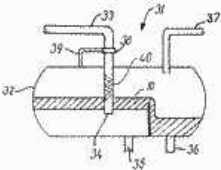
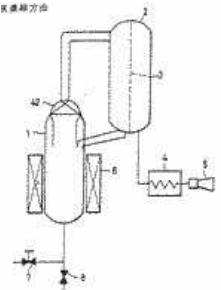
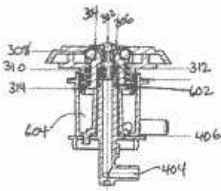
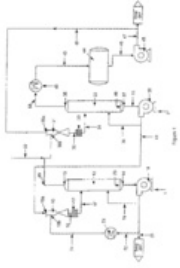
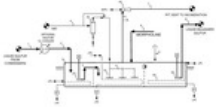
Oxygen or other gases are dissolved in large bodies of liquid by injection under a baffle for passage into a submerged hollow draft-tube-impeller means assembly for downward passage therein. Liquid containing dissolved gas is dispersed throughout the body of liquid, while any undissolved gas is effectively recovered and **recycled**. The invention is specially designed for use with oxygen containing gases having less than 96 vol.% oxygen.

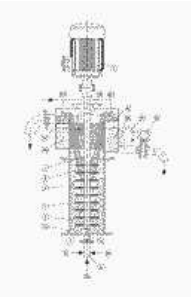
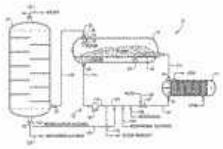
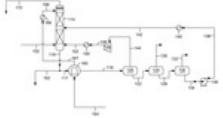
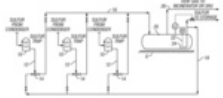
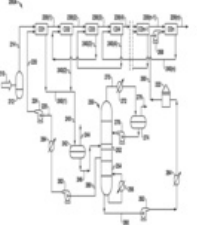
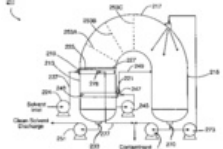
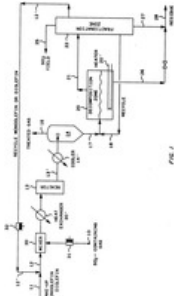


21. [Degassing technology in synthetic process of neoprene](#) CN102120789 2011-07-13 SEDIN ENGINEERING*

The invention discloses a degassing technology in the synthetic process of neoprene. The technology comprises the following steps: neoprene latex with chloroprene monomer enters a first-stage degassing pipe; under the vacuum condition, steam and neoprene latex enter a first-stage separator after steam stripping to obtain first-stage separated gas and first-stage separated neoprene latex; the first-stage separated gas enters a second-stage separator to obtain second-stage separated gas and second-stage separated neoprene latex, the second-stage separated gas enters a third-stage separator to obtain third-stage separated gas and third-stage separated neoprene latex, the third-stage separated gas passes through a water condenser, a chloroprene **recycling** condenser and a tail gas condenser so that water, chloroprene monomer and toluene are condensed, tail gas is sucked in a first-stage ejector, the ejector is emptied; the first-stage separated neoprene latex, the second-stage separated neoprene latex and the third-stage separated neoprene latex are **mixed** to enter a second-stage degassing pipe, the **mixed** gas is flashed under high vacuum degree and then performs first-stage separation twice to obtain final neoprene latex and twice separated gas; the twice separated gas enter first-stage separation twice to obtain final separated gas and final neoprene latex; and the final separated gas is cooled, is sucked by a second-stage ejector and enters a third-stage separator. The process disclosed by the invention has high degree of degassing and high monomer recovery rate which can be more than 90%, the process has low energy consumption; and by adopting the process, the quality of the neoprene product can be increased.



22.	Enhanced gas dissolution	BRPI9205151	1993-02-24	PRAXAIR S T TECHNOLOGY* PRAXAIR TECHNOLOGY	Oxygen or other gases are dissolved in large bodies of liquid (1) by injection under a baffle (2) for passage into a submerged hollow draft-tube-impeller (4,5) means assembly for downward passage therein. Liquid containing dissolved gas is dispersed throughout the body of liquid, while any undissolved gas is effectively recovered and recycled. <IMAGE> 
23.	A gravity separator	CA2816148	2007-05-03	M I EPCON SCHLUMBERGER*	The present invention relates to a gravity separator, primarily of the kind in which a mixture flowing from an oil well and containing water, oil, and gas is separated into discrete, vertically spaced, water, oil, and gas layers in a separator vessel for subsequent extraction from the vessel by way of a water outlet, oil outlet, and gas outlet, respectively. A gaseous medium is injected into the mixture containing water, oil, and gas to enhance the separation capacity. 
24.	Apparatus for concentrating waste liquid, apparatus for processing waste liquid and method of concentrating waste liquid	JP63221881	1988-09-14	HITACHI*	This invention relates to a waste liquid concentration technique which removes water of a waste liquid therefrom at a high decontamination efficiency. The invention uses a porous film which transmits gas such as steam but not liquid such as water as a concentration film of the waste liquid. When the waste liquid is concentrated by use of this porous film, the waste liquid is brought into contact with the porous film in the form of steam flow to concentrate it. Since the waste liquid is turned to the steam flow, most of various metal ions and surfactants existing in the waste liquid are separated from the steam flow. The mist contained in the steam flow and the metal ions in the mist are removed from the steam by the porous film when the steam passes therethrough. Therefore, the waste liquid can be processed at a high decontamination efficiency and moreover, stably for an extended period. If this waste liquid concentration technique is applied to a processing apparatus for the waste liquid having high electric conductivity that is generated from a nuclear power plant, for example, various tanks, desalting devices, ion exchange resin and the like, otherwise disposed downstream of the concentrator become unnecessary and the processing system can be simplified drastically. 
25.	Sanitization system and system components producing ozonated liquid	WO2004063100	2004-07-29	TASANO TERSANO* TERSANO INK	A multi-use sanitization system is disclosed which includes one or more containers (2) in fluid communication with other system components. Components of the system include a vortex-venturi (5) for incorporating ozone into a liquid, an ozone generator (6) to provide ozone to the vortex-venturi (5), a double check valve (3) to allow simultaneous flow of liquid into and out of the container (2), and a pump (4) to promote fluid flow through the system. Optionally, a gas-liquid separator (7) with an optional integral gas release valve, an ozone destructor (8), an oxidation-reduction potential ozone sensor, or a pour-through type pre-filter may be incorporated into the system. 
26.	Modular mass transfer and phase separation system	US20030005823	2003-01-09	PROSCON SYSTEMS*	A modular mass transfer and phase separation system for a fluid comprising a mass transfer component and a second component from which the mass transfer component is separable by mass transfer. The system has a first stage and at least one later stage each stage comprising: co-current contacting means for co-currently contacting at least two fluid streams to effect mass transfer of the mass transfer component and phase separation means for separating phases from the co-currently contacted fluid streams. The stages are in fluid communication so that at least two fluid stream which has been separated by phase separation in the early stage is communicable for co-current contacting and for phase separation in a later stage. At least one fluid stream which has been separated by phase separation in a later stage is communicable in a counter-current direction for co-current contacting and for phase separation in the early stage. The system may be modular. The invention also relates to a method of effecting mass transfer and phase separation utilised in the above system. 
27.	Superdegas—a process of integrating sulfur collection and degassing for zero emission	US20170088421	2017-03-30	RAMESHNI MAHIN;SANTO STEPHEN L	A process is provided for liquid sulfur degasification in an underground container, comprising: collecting liquid sulfur which contains polysulfides and hydrogen sulfide in a first compartment of the underground container; agitating and creating turbulence in the liquid sulfur in the first compartment of the underground container; transferring the liquid sulfur into a second compartment of the underground container; injecting gas into the liquid sulfur into the second compartment of the underground container via gas spargers, and also injecting morpholine catalyst into the liquid sulfur in the second compartment of the underground container to produce a degassed liquid sulfur; and transferring the degassed liquid sulfur into a third compartment of the underground container for storage and subsequent removal. 

28.	Apparatus for simultaneous grinding and froth flotation	EP3025786	2016-06-01	OMYA*
The present invention relates to apparatus for simultaneous grinding and froth flotation of at least one crude mineral and/or pigment, a process carried out in the apparatus for manufacturing at least one ground mineral and/or pigment, use of the ground mineral and/or pigment bearing phase obtainable by the process in paper applications as well as in paper, plastics, paints, coatings, adhesives, sealants, food, feed, pharma, concrete, cement, cosmetic, water treatment and/or agriculture applications, preferably in a wet end process of paper machine, in cigarette paper, board, and/or coating applications, or as support for rotogravure and/or offset and/or inkjet printing and/or continuous ink jet printing and/or flexography and/or electrophotography and/or decoration surfaces and the ground mineral and/or pigment bearing phase or ground mineral and/or pigment obtainable by the process.				
				
29.	Process for polyester production employing horizontally elongated esterification vessel	US20080139760	2008-06-12	EASTMAN CHEMICAL PETROTEMEX*
A polyester production process employing an esterification system that utilizes a horizontally elongated esterification vessel as an esterification reactor and/or a vapor-liquid disengagement vessel.				
				
30.	Use of hydraulic turbocharger for recovering energy from high pressure solvents in gasification and natural gas applications	US20150367276	2015-12-24	UOP*
The invention provides a process and system for regenerating a solvent used to remove carbon dioxide from feed gases, such as natural gas and synthesis gas. The invention employs one or more hydraulic turbochargers to transfer energy from a higher energy solvent stream to a lower energy solvent stream. This energy is converted to electricity for use in powering parts of the process and system. This provides for a significant reduction in operating expenses.				
				
31.	Sulfur collection systems and processes with integrated degassing	US20100178236	2010-07-15	WORLEYPARSONS*
Systems and methods for the collection of liquid sulfur with integrated degassing are described, wherein the system and methods include the use of one or more liquid jet pumps or eductors employing a pumped liquid sulfur recycle stream as motive fluid to boost sulfur rundown pressure. The new invention eliminates piping constraints inherent with conventional gravity flow, thus permitting location of the sulfur collection vessel above ground and remote from the sulfur recovery unit. In addition, the described methods provide entrainment and enough agitation in the liquid sulfur such that simultaneously degassing occurs within the sulfur collection piping and associated systems described herein. The instant systems and methods are integrated with the degassing system, meaning that the sulfur will be initially degassed during the collection process, and then further degassing occurs by the methods described herein.				
				
32.	Removal of acid gases from a gas stream	WO2010044956	2010-04-22	EXXONMOBIL UPSTREAM RESEARCH*
A gas processing facility for the separation of fluids is provided. The facility includes co-current contactors placed in series. Each co-current contactor receives a gas stream that includes a non-absorbing gas such as a hydrocarbon gas or nitrogen. The gas stream also includes an acid gas or other contaminant. Each co-current contactor also receives a liquid solvent stream. The co-current contactors then each release a sweetened gas stream and a gas-treating solution. In one processing direction, the contactors are arranged to deliver progressively sweetened gas streams. In the opposite processing direction, the contactors are arranged to deliver progressively richer gas-treating solutions. In one aspect, the facility includes at least a first co-current contactor, a second co-current contactor and a final co-current contactor. However, any number of at least two co-current separators may be employed. Methods and processes for separating a gas stream are also provided.				
				
33.	Method and apparatus for removing foaming contaminants from hydrocarbon processing solvents	CA2349872	2002-08-27	MPR SERVICES CHARLOTTE NC*
A column of solvent containing foaming contaminants is provided. Gas is educted into the solvent in the column so as to generate foam in the column. The gas is educted into the column independently of the input flow of solvent into the solvent using a pumparound arrangement with the solvent. Foam generation continues so as to push the foam up in the column, wherein much of the solvent that is in the foam is allowed to drain back down into the column. The foam passes through concentrators which increase the residency time of the foam in the column to further dry the foam and to create larger bubbles. The drier foam is pushed out of the column and into a container. The foam is broken up into gas and the liquid foaming contaminants. The gas is recirculated for injection into the column even after foaming has stopped. The foaming contaminants are concentrated at the surface level of the solvent in the column. These contaminants are removed from the column. A liquid separator separates immiscible liquids, such as oil, from the solvent.				
				
34.	Method of removing sulfur dioxide from gases	US4191732	1980-03-04	PHILLIPS PETROLEUM*
Sulfur dioxide is removed from a sulfur dioxide-containing gas mixture by contacting the gas mixture with a monoolefin or diolefin.				
				

35. Method and device for establishing a partial vacuum in a zone of permeable ground isolated from the atmosphere by a leaktight membrane

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The invention relates to a method and to a device for making a partial vacuum prevail in a zone (5) of permeable ground which is isolated from the external atmosphere by an isolation membrane (7) which covers over the said zone. In suction means (25) designed to receive a driving fluid and air to be sucked, the driving fluid is made to flow at a high speed in order to create, in these suction means, a partial vacuum capable of entraining a suction of air into it, this sucked-in air having previously been isolated, in a separation chamber (27), from a **mixture** of air and water coming from, or from the environs of, the said zone (5) of permeable ground. The invention applies in particular to the consolidation of soft ground with a low permeability and which are impregnated with water. <IMAGE>

