

Search history

Search 1: TAC= (hydrocarb* and separat* and electro*) (Results 4092)
Search 2: 1 and PD=20160329 (Results 5)
Search 3: 1 and PD<20160329 (Results 3736)
Search 4: 3 and TAC=(shock* and wave*) (Results 31)

1) Family number: 46562047 (US2012132731A)

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Title: METHOD AND SYSTEM FOR REUSING MATERIALS AND/OR PRODUCTS BY PULSED POWER

Abstract: The invention relates to a method for reusing materials and/or products by pulsed power according to which a series of electrical discharges are generated between at least two **electrodes** in a reactor containing an ambient liquid as well as the materials and/or products to be reused, characterised in that the energy of said electric discharges, the voltage between the **electrodes**, the switching time and the frequency of the discharges are selected such that said discharges generate electric arcs that pass through the materials and/or products to be reused, and mechanical **shock waves** that propagate across the materials and/or products to be treated in the reactor. The result is fragmentation, pulverisation, dispersion and **separation** of the elements that make up the materials and/or products to be reused. The invention also relates to it device for implementing said method.

Classifications:

International (IPC 8-9): B01J19/10 B01J3/08 B02C19/00

B02C19/18 (Advanced/Invention);

B01J19/10 B01J3/06 B02C19/00 (Core/Invention);

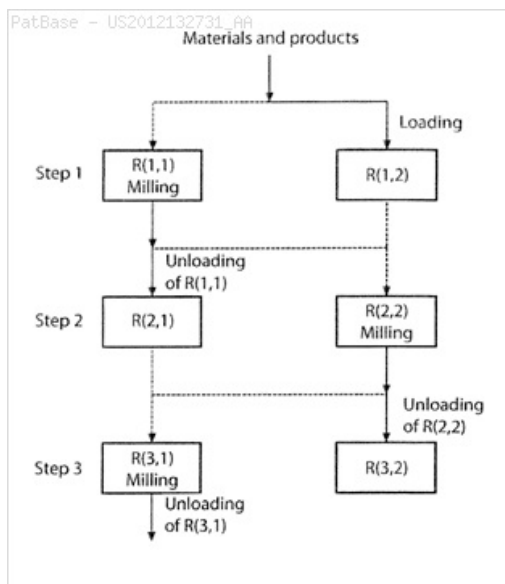
B02C (Subclass/Invention)

CPC: B02C19/18 B02C2019/183 B09B3/00 B09C1/00 B29B17/02

B29K2105/06 B29K2707/04 B29L2031/7782 Y02W30/622

European: B02C19/18 L02C19/18B

US: 1/1 241/1 241/101.2 241/101.200S 241/152.1 241/1P 241/21 241/29 241/301



Family:

Publication number	Publication date	Application number	Application date
AU2010212876 AA	20100819	AU20100212876	20100211
AU2010212876 BB	20150430	AU20100212876	20100211
AU2010212878 AA	20100819	AU20100212878	20100211
AU2010212878 BB	20150528	AU20100212878	20100211
CA2752216 AA	20110810	CA20102752216	20100211
CA2752216 C	20171024	CA20102752216	20100211
CA2752217 AA	20100819	CA20102752217	20100211
CA2752217 C	20180508	CA20102752217	20100211
DE602010024884 D1	20150709	DE201060024884T	20100211
EP2396116 A1	20111221	EP20100703294	20100211
EP2396116 B1	20150527	EP20100703294	20100211
EP2396117 A1	20111221	EP20100703873	20100211
EP2396117 B1	20180425	EP20100703873	20100211
EP2396117 B8	20180606	EP20100703873	20100211
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ES2680902 T3	20180911	ES20100703873T	20100211
FR2942149 A1	20100820	FR20090050945	20090213
FR2942149 B1	20120706	FR20090050945	20090213
JP2012517891 T2	20120809	JP20110549568T	20100211
JP2012517892 T2	20120809	JP20110549570T	20100211
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US2012132732 AA	20120531	US20100201200	20100211
US8746598 BB	20140610	US20100201200	20100211

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WO10092136 A8	20101021	WO2010EP51752	20100211
ZA201105909 A	20120328	ZA20110005909	20110812

Priority:

FR20090050945 20090213 EP20100703294 20100211 EP20100703873 20100211
WO2010EP51752 20100211 WO2010EP51750 20100211

Probable Assignee: CAMILLE COMP D ASSISTANCE MINIERE ET INDUSTRIELLE

Assignee(s): (std): BENTAJ ABDELAZIZ ; CAMILLE CAMPAGNIE D ASSISTANCE MINIERE ET IND ; CAMILLE CIE D ASSISTANCE MINIE ; CAMILLE CIE D ASSISTANCE MINIERE ET IND ; CAMILLE COMP DASSISTANCE MINIERE ET IND ; CLEMENT JEAN LOUIS ; TUTUSEAU JEAN PIERRE ; OUAYAHYA NADIR ; TUTUSAUS JEAN PIERRE ; XCRUSHER

Assignee(s): CAMILLE COMPAGNIE D ASSISTANCE MINIERE ET INDUSTRIELLE ; CAMILLE COMP D'ASSISTANCE MINIERE ET INDUSTRIELLE ; CAMILLE COMP D ASSISTANCE MINIERE ET INDUSTRIELLE ; CAMILLE CAMPAGNIE D ASSISTANCE MINIERE ET INDUSTRIELLE

Inventor(s): (std): ABDELAZIZ BENTAJ ; BENTAJ ABDELAZIZ ; CLEMENT JEAN LOUIS ; LOUIS CLEMENT JEAN ; OUAYAHYA NADIR ; TUTUSEAU JEAN PIERRE ; TUTUSAUS JEAN PIERRE ; PIERRE TUTUSAUS JEAN ; NADIR OUAYAHYA

Inventor(s): JEAN LOUIS CLEMENT ; JEAN PIERRE TUTUSEAU

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; GOUDREAU GAGE DUBUC; LAVERY DE BILLY LLP; KILIAN KILIAN AND PARTNER; CALLON DE LAMARCK JEAN ROBERT; REGIMBEAU; CURELL MIREIA; CABINET REGIMBEAU; BLAKELY SOKOLOFF TAYLOR AND ZAFMAN

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

2) Family number: 29904449 (US3510403A)

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Title: CULTIVATION OF **HYDROCARBON**-CONSUMING MICRO-ORGANISMS

Abstract: ABSTRACT OF THE DISCLOSURE feedstock (in the presence or absence of other constitu- „ ... „ ents) into a liquid medium which is at a temperature below An improved process of cultivating a microorganism ^ mdti M Qf fte feedstock whereby **shock** cooling in the presence of a **hydrocarbon** feedstock in a fermenter „0 of the feedstock takes place. is provided which comprises forming a dispersion of the Jn another ferred method there h formed l; id. **hydrocarbon** feedstock in a liquid medium prior to feed- inU i(J suspension or solution of the feedstock in a ing the feedstock to the fermenter, mixing the dispersion H M medium and Ms s nsion or soJution is subjected with the microorganism and thereafter feeding the mix- t0 **shock** cooMng tQ form a solid.in.liqmd suspension of ture to the fermenter. 25 the feedstock in the liquid medium. The liquid-in-liquid _ ^ _ ^ _gt;_ suspension may be formed by atomising the melted solid rinw RRERBBwrF«! to UFT ATPFi feedstock into a liquid medium which is at a temperature CROSS-REFERENCES TO RELATED above the melting point of ^ feedstock. APP-LICATIONS -phe liquid medium (whether employed above or below This application is a divisional application of U.S. 30 the melting point of the feedstock as described above) application Ser. No. 330,528, filed Dec. 16, 1963, which will preferably be an aqueous phase or a **hydrocarbon** issued as U.S. Pat. No. 3,268,413 on Aug. 23, 1967. phase.

Classifications:

International (ipc 8-9): A23J1/18 A23L1/28 B29C59/02 C10G31/12 C10G32/00 C10G53/12 C10G67/02 C10G67/14 C12C11/00 C12N1/00 C12N1/02 C12N1/16 C12N1/26 C12N1/28 C12P21/00 C12P7/64 C12R1/01 C12R1/02 C12R1/04 C12R1/06 C12R1/07 C12R1/11 C12R1/125 C12R1/145 C12R1/15 C12R1/20 C12R1/265 C12R1/365 C12R1/38 C12R1/385 C12R1/64 C12R1/645 C12R1/66 C12R1/685 C12R1/72 C12R1/73 C12R1/74 C12R1/78 C12R1/80 C12R1/825 C12R1/88 (Advanced/Invention); A23J1/00 A23L1/28 B29C59/02 C10G32/00 C10G53/00 C10G67/00 C12N1/00 C12N1/02 C12N1/16 C12N1/26 C12P21/00 C12P7/64 (Core/Invention); C10G C21C (Subclass/Invention)

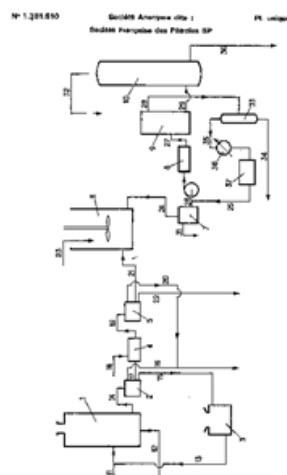
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CPC: C12N1/28 Y10S435/822 Y10S435/911 Y10S435/921 Y10S435/923 Y10S435/933 Y10S435/944 Y10S435/837 Y10S435/839 Y10S435/875 Y10S435/924 Y10S435/874 C10G67/02 C12P21/00 C12N1/00 C12P7/6463 A23J1/18 C12N1/005 C12N1/02 C10G53/12 C10G67/14 C12N1/26 B29C59/025 C10G32/00

European: A23J1/18 B29C59/02C2 C10G32/00 C10G53/12 C10G67/02 C10G67/14 C12N1/00 C12N1/00B C12N1/02 C12N1/26 C12N1/28 C12P21/00 C12P7/64E2D

US: 195/82 208/203 426/32 435/106 435/248 435/255.4 435/256.8 435/281 435/71.1 435/822 435/837 435/839 435/874 435/875 435/911 435/921 435/923 435/924 435/933 435/944 585/251 585/258 585/261 585/262 585/841 585/899

PatBase - FR1361910_A



Family:

Publication number	Publication date	Application number	Application date
AT262198 B	19680610	AT19630010523	19631231
AT262200 B	19680610	AT19650008339	19631231
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FI43860 C	19710712	FI19670002577	19670927
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US3268412 A	19660823	US19630330521	19631216
US3268413 A	19660823	US19630330528	19631216
US3268419 A	19660823	US19630297213	19630724
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Priority:

FR19620090607 19620803	FR19620906076 19620803	FR19620049066 19621231
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NO19680003031 19680801		

Probable Assignee: BP PLC

Assignee(s): (std): BP PLC ; BRISTISH PETROLEUM CO LTD ; BRISTISH PETROLEUM COMPANY LTD ; BRISTOL PETROLEUM CO LTD ; BRITISH PETROLEUM CO ; BRITISH PETROLEUM CO LTD ; BRITISH PETROLEUM CO LTD GB ; FR DES PETROLES BP SOC ; BRITISH PETROLEUM COMPANY LTD ; BRITISH PETROLEUM C L ; BRITISH PETROLEUM CO LTD ; THE BP CO LTD ; THE BRITISH PETROLEUM COMPANY LTD ; THE BRITISH PETROLEUM CO LTD LONDON ; THE BRITISH PETROLEUM CO LTD

Assignee(s): THE BRISTOL PETROLEUM CO LTD ; SOCIETE FRANCAISE DES PETROLES BP ; THE BRITISH PETROLEUM COMPANY LIMITED ; THE BRITISH PETROLEUM COMPANY LIMITED ; THE BRITISH PETROLEUM C L ; THE BRITISH PETROLEUM COMPANY LIMITED OF BRITANNIC HOUSE ; BRITISH PETROLEUM CO OF BRITANNIC HOUSE LTD ; FRANCAISE DES PETROLES BP SOC ; THE BRITISH PETROLEUM COMPANY LIMITED ; THE BRITISH PETROLEUM COMPANY LIMITED OF BRITANNIC ; BRITISH PETROLEUM COMPANY LIMITED ; BP CO LTD ; BP LTD LONDON GB ; BRITISH PETROLEUM COMPANY LTD ; BRITISH PETROLEUM CO LTD THE

Inventor(s): (std): CHAMPAGNAT ALFRED ; LAINE BERNARD MAURICE ; VERNET CHARLES ; VINH KY CHARLES ; FILOSA JEAN ANTOINE ; LAVERA BOUCHES DES RHONE ; CHAMPAGNAT A ; LAINE B ; VERNET C ; FILOSA J ; VINH K ; BERNARD MAURICE LAINE ; JEAN ANTOINE FICOB A ; COLOMBES B ; VERNET CHARLES L ; KY CHARLES VINH ; CHARLES VINH KY ; ANTOINE FILOSA JEAN ; BERNARD MAURICE LAINE ; FILOSA JEAN ANTOINE ; PARIS ; BERNARD LAINE ; COLOMBES B FR ; FILOSA J BOIS COLOMBES FR ; LAINE B FR ; ALFRED CHAMPAGNAT ; MAURICE LAINE BERNARD ; VERNET C FR ; CHARLES VERNET ; VERNET C ST GERMAIN ; JEAN ANTOINE FILOSA

Inventor(s): BERNHARD MAURICE LAINE ; BRISTOL PETROLEUM CO LTD ; BRISTOL PETROLEUM CO LTD ; BERNARD NARUKE LAINE ; BERNARD MAURICE LAINE AND JEAN ANTOINE FILOSA ; CHARLES VERNET AND JEAN ANTOINE FILOSA ; THE BRITISH PETROLEUM CO LTD ; THE BRISTOL PETROLEUM CO LTD ; LAINE BERNARD ; VINH KY CHARLES LAVERA BOUCHES DE RHONE ; CHARLES L VERNET ; CHAMPAGNAT ALFRED COURBEVOIE SEINE

3) Family number: 28290889 (US2003231485A)

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Title: TUBULAR ELECTRO-LUMINESCENT PANEL(S) LIGHT DEVICE

Abstract: A tubular Electro-Luminescent panel(s) light device offer a desired bending directions with super brightness basing on certain width of panel incorporated proper inverter system. The said panel(s) with much narrow width than tube means to allow the panel(s) can be bend at any direction and angle within the tube means to offer a desired light effects. The said panel(s) can be flat or twisted within the tube means which may have the desired colored, transparency, wall thickness, diameter, shape, length for requirement. The said device may incorporated with non-elastic means, magnetic means, tube holder, sensor means, Integrated circuit to add a lot of desired variety features.

Classifications:

International (IPC 8-9): A41D27/08 A41G1/00 A42B1/24 A43B3/00 A45C15/06 A61L9/03 B60Q1/26 B60Q3/02 B60R11/00 B60R13/00 C10G1/00 C10G32/00 C12M1/00 C12M1/06 C12M1/12 C12M1/34 C12M3/00 C12P5/00 F21K2/00 F21K9/232 F21K9/235 F21K9/275 F21K9/60 F21K9/65 F21K99/00 F21L13/00 F21L14/00 F21L4/00 F21L4/02 F21L4/08 F21S10/00 F21S10/02 F21S10/06 F21S2/00

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Family:

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Probable Assignee: TORMACH LLC

Assignee(s): (std): CHIEN TAENG LU ; CHIEN TSENG L ; CHIEN TSENG LU ; TORMACH LLC ; WALLAGE RAYMOND ROGER

Inventor(s): (std): CHIEN TSENG LU ; WALLAGE RAYMOND ROGER ; CHIEN TSENG L ; CHIEN TAENG LU

Inventor(s): CHIEN TSENG

Agent(s): BACON AND THOMAS PLLC ; ROBERT ; NAECKEL ARNO

4) Family number: 3411328 (US4917785A)

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Title: Liquid processing system involving high-energy discharge

Abstract: A method and apparatus are disclosed for efficient endothermic processing of liquids and the precipitation of dissolved elements and chemical compounds. Improvements over prior systems include system layout, components and modes of operation of the system. Applications of the system include destruction of toxic wastes and sewage treatment, precipitation of chemical compounds and elements including metals from solution (brine, sea water, industrial waste), sterilization and water purification, catalytic formation of chemical compounds, and processing of **hydrocarbons**.

Classifications:

International (IPC 8-9): A62D3/00 A62D3/13 A62D3/34 B01D43/00 B01D57/02 B01J19/08 B01J3/08 B03C5/00 C02F1/46 H05B3/60 (Advanced/Invention);

A62D101/20 A62D101/22 A62D101/40 A62D101/43 A62D101/47

A62D101/49 C02F1/00 (Advanced/Non-invention);

A62D3/00 B01D43/00 B01D57/02 B01J19/08 B01J3/06 B03C5/00

C02F1/46 H05B3/60 (Core/Invention);

C02F1/00 (Core/Non-invention)

International (IPC 1-7): B01D13/02 B01J19/08 B01J3/08 C02F1/463 H05B31/06

CPC: Y10S422/907 Y10S588/90 H05B3/60 B01D43/00 B01D57/02

B01J3/08 B01J19/088 B03C5/00 C02F1/4608 C02F2301/024

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European: A62D3/00E2 A62D3/00E3 B01D43/00 B01D57/02

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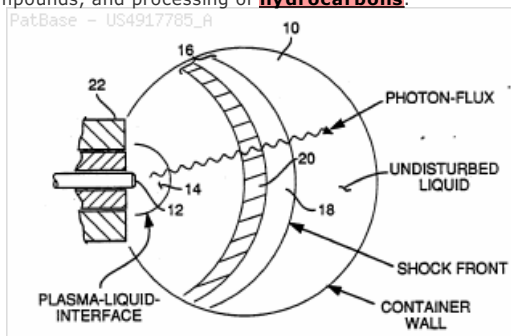
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Family:

Publication number	Publication date	Application number	Application date
US4917785 A	19900417	US19870078655	19870728
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Priority:

US19870078655 19870728

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Probable Assignee: TIC WRH LLC

Assignee(s): (std): JUVAN CHRISTIAN H A

Assignee(s): SCIENTIFIC UTILIZATION INC ; THOMPSON INVESTMENT CO ; LRL INVESTMENTS LTD ; THOMPSON TRACTOR INC ; TIC WRH LLC ; THOMPSON INVESTMENT CO LLC ; ADAPTIVEARC INC ; HASKELL WYATT R

Inventor(s): (std): JUVAN CHRISTIAN H A

5) Family number: 30128525 (US2002182101A)

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Title: Process and device for plasma surface treatment

Abstract: In the present invention, a process for plasma treatment of an object's surface to be treated comprises the creation of a plasma, the application of the plasma to the surface to be treated, and the excitation of the surface to be treated, such that it undulates. The energy for excitation of the surface may come from the process creating the plasma, from an external source, or from a combination of these two sources. The vibration of the surface to be treated preferably takes place while the plasma is being applied to the surface to be treated, but depending on the treatment to carry out, it may also take place just prior to and/or just after the application phase.

Classifications:

International (IPC 8-9): A61L2/14 B01J19/08 B01J2/00 B01J2/16

B05D3/06 B05D3/12 B05D7/00 B06B1/02 B08B7/00 B65D23/02

B65D23/08 B65D25/34 H01J1/00 H01J37/32 H01L21/304

H01L21/3065 H05H1/24 H05H1/30 H05H1/46 (Advanced/Invention);

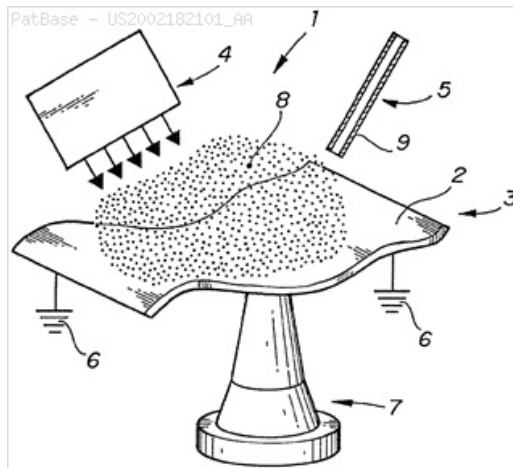
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H05H1/26 (Core/Invention)

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Family:

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Priority:

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Probable Assignee: APIT CORP SA

Assignee(s): (std): APIT CORP S A ; APIT CORP SA ; APIT CORP SA SION ; APIT CORP SION SA ; KOULIK PAVEL ; SAMSONOV MIKHAIL ; CHEREPANOV ALEXANDER ; PETROV EVGUENII ; SAMSONOV MICKHAIL ; IVANOV MARK ; APIT KORP S A

Assignee(s): APIT ; APIT CORP ; APIT KORP SA

Inventor(s): (std): KOULIK PAVEL ; SAMSONOV MIKHAIL ; CHEREPANOV ALEXANDER ; PETROV EVGUENII ; SAMSONOV MICKHAIL ; IVANOV MARK ; SAMSONOV MIKHA L ; KOULIK P ; SAMSONOV M ; CHEREPANOV A ; EVGUENII PETROV ; CHEREPANOV ALEKSANDR ; KULIK PAVEL ; A CHEREPANOV ; M SAMSONOV ; P KOULIK ; PETROV EVGENIJ

Inventor(s): MICKHAIL SAMSONOV ; MIKHA L SAMSONOV ; ALEXANDER CHEREPANOV ; PAVEL KOULIK

Agent(s): MOTOMIYA TERUHISA ; FUJINO IKUO ; TAKANASHI NORIMICHI ; UBUKATA KAZUO ; KATO NOBUAKI ; TAKAHASHI SEIICHIRO ; OCHI TAKAO ; USUI SHINICHI ; MATSUI TAKAO ; OKABE MASAO ; YOSHIZAWA HIROSHI ; ASAHINOBU MITSU ; CLIFFORD W ; KRIEG DEVAULT LLP

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 VN YU ZA ZM ZW

Title: GELATINOUS ELASTOMER COMPOSITIONS AND ARTICLES FOR USE AS FISHING BAIT

Abstract: A soft gelatinous elastomer composition and article useful as fishing bait formed from one or a mixture of two or more of a poly(styrene-ethylene-butylene-styrene) block copolymer(s) and one or more plasticizers being in sufficient amounts to achieve a gel rigidity of from about 20 gram Bloom to about 800 gram Bloom

Classifications:

International (ipc 8-9): A01K84/00 A01K85/00 A01K85/01 A01K97/04 A01N15/00 A01N25/00 A23L1/00 A23L1/05 A23L1/317 A23L1/325 A23L13/60 A23L17/00 A23L29/20 A46B1/00 A46B9/04 A47C17/00 A47C27/00 A47C7/00 A61B19/00 A61C15/00 A61C15/04 A61F2/06 A61F2/78 A61F2/80 A61K31/70 A61K47/00 A61M5/00 A61M5/158 A63H1/32 A63H27/18 A63H33/18 B01D61/38 B21D26/02 B21D26/055 B21D37/20 B29C67/20 B32B27/00 B32B27/22 B32B27/30 B60K28/00 B60K3/00 B60R21/16 B60R21/26 B60R22/00 B61C15/00 B63B11/04 B63B9/08 B68G11/04 B68G5/00 C08F1/28 C08F175/00 C08F297/04 C08J5/02 C08K3/00 C08K5/01 C08K5/24 C08L1/00 C08L23/16 C08L25/10 C08L51/00 C08L53/00 C08L53/02 C08L53/05 C08L9/00 C09D11/02 C09J153/02 C09J7/02 C10G1/04 C21D8/02 C22C38/42 C22C38/48 C22C38/50 C22C38/54 C22C38/58 G01N33/56 G01N33/57 H02N1/00 H02N2/00 (Advanced/Invention);

A61F2/78 A61M5/31 C08L101/00 (Advanced/Non-invention);

A01K85/00 A01K85/01 A01K97/04 A01N25/00 A23L1/00 A23L1/05 A23L1/317 A23L1/325 A47C17/00 A47C27/00 A47C7/00 A61B18/20 A61B19/00 A61C15/00 A61F2/06 A61F2/78 A61F2/80 A61K31/70 A61K47/00 A61M5/00 A61M5/14 A63H1/00 A63H27/00 A63H33/00 B01D61/38 B21D26/00 B21D37/20 B29C67/20 B32B27/00 B32B27/22 B32B27/30 B60K28/00 B60K3/00 B60R21/16 B60R21/26 B60R22/00 B63B11/00 B63B9/08 B68G5/00 C08F297/00 C08K3/00 C08K5/00 C08L1/00 C08L23/00 C08L25/00 C08L51/00 C08L53/00 C09D11/02 C09J153/00 C09J7/02 C10G1/00 C21D8/02 C22C38/42 C22C38/48 C22C38/50 C22C38/54 C22C38/58 G01N33/56 G01N33/57 H02N1/00 H02N2/00 (Core/Invention);

A61F2/50 A61M5/31 C08L101/00 (Core/Non-invention)

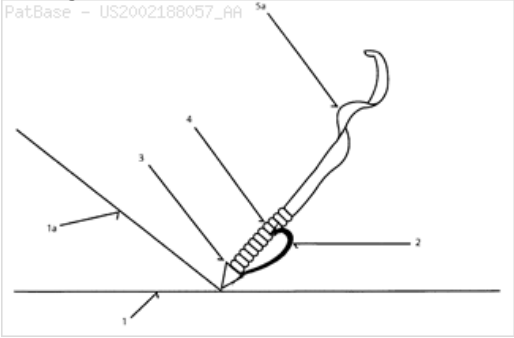
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European: A01K85/00 A01K85/01 A01K97/04B A23L1/0562B A23L1/317D A23L1/325E A46B15/00B A46B15/00B2D A46B9/02E A46B9/04 A61C15/00 A61C15/04B A61F9/008 A61F9/008C A63H1/32 A63H33/18W B01D61/38 B21D26/055 B21D37/20 B32B27/00 B60R21/235 C08F297/02 C08F297/04 C08F297/04K C08K5/00P1 C08K5/01 C08L23/02 C08L51/00 C08L53/00 C08L53/00B C08L53/02 C08L53/02B C08L91/00 C09J153/02 C09J153/02B C10G1/04 C21D8/02D C22C38/42 C22C38/48 C22C38/50 C22C38/54 C22C38/58 K46B200/10G K61B18/20J K61F2/78C K61F2/78C4 K61F2/80 K61F9/008L1 K61M5/31A3E2 L60R21/235M M08K3/00P5 M08L101/00B M08L205/03 M08L205/06 M08L23/02 M08L23/06 M08L23/30 M08L91/00

US: 128/112.1 128/113.1 128/117.1 128/206.12 128/206.21 128/408 128/857 132/308 132/321 132/323 132/329 135/68 135/71 135/72 135/82 15/104.002 15/104.2 15/110 15/167.1 15/207.2 15/210.1 15/214 151/40.02 174/137A 174/137B 180/271 2/2.11 2/2.15 2/2.16 2/211 2/215 2/216 2/410 2/411 2/423 2/424 2/428 2/455 2/456 2/457 2/458 2/54 2/69 2/79 204/606 204/607 264/109 264/113 264/122 264/211.13 264/46.4 264/464 264/53 280/728.1 280/728.2 280/740 280/741 280/742 280/742P 297/391 297/392 297/394 297/397 297/411.2 297/423.1 297/DIG.1 297/DIG.4 310/309 310/309P 36/153 36/37 36/43 385/144 424/401 424/401P 424/405 424/405P 424/439 424/439P 424/448 424/84 426/1 426/573 427/162 428/301.4 428/308.4 428/319.3 428/319.7 428/319.9 428/35.2 428/352 428/378 428/401 428/407 428/441 428/462 428/515 428/52 428/521 428/537.1 428/688 43/26.2 43/35 43/42 43/42.24 43/42.26 43/42.32 43/42.33 43/42.34 43/42S 43/43.33 433/216 44/271 441/102 441/102S 442/59 442/62 442/85 442/85P 446/253 446/254 446/34 446/385 446/46 446/48 446/486 446/490 446/491 446/61 446/62 446/66 5/632 5/636 5/640 5/652 5/653 5/654 5/655.5 5/655.9 5/724 5/909 52/447.4 521/139 521/140 521/148 521/50 521/54 523/105 523/113 523/218 523/218S 524/187 524/226 524/232 524/261 524/270 524/271 524/272 524/274 524/275 524/277 524/284 524/313 524/315 524/366 524/375 524/379 524/394 524/399 524/400 524/450 524/474 524/476 524/481 524/484 524/485 524/486 524/487 524/490 524/491 524/505 524/507 524/508 524/513 524/515 524/543 524/543S 524/549 524/571 524/571S 524/575 524/578 524/81 524/98 525/148 525/240 525/240P 525/241 525/314 525/476 525/490 525/505 525/521 525/8 525/89 525/95 525/959 525/98 525/99 56/52 56/559 565/550 57/24 585/833 601/141 602/1 602/41 602/41P 602/61 602/62 602/63 604/262 604/263 604/408 604/410 604/411 606/16P 606/2S 623/1.11 623/1.110S 623/11 623/11.11 623/13.12 623/13.12 623/18 623/20 623/20.14 623/21.11 623/23.4 623/23.41 623/23.58 623/27 623/33 623/36 623/37 623/59 623/61 623/63 623/8 66/171 66/178R 66/184 66/185 66/187 701/45 72/60 72/63 72/709 76/107.1

Locarno class: 24/58



Family:

Publication number	Publication date	Application number	Application date
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Probable Assignee: APPLIED ELASTOMERICS INC

Assignee(s): (std): APPLIED ELASTOMERICS INC ; BOEING CO ; CHEN JOHN Y

Assignee(s): PATENT AND LICENSE OFFICE ; THE BOEING COMPANY ; APPLIED ELASTOMERICS INCORPORATED ; ALLIED ELASTOMERICS INC

Inventor(s): (std): CHEN JOHN YOUNG FU ; SANDERS DANIEL G ; CHEN JOHN Y ; CHEN JOHN YOUNGFU

Inventor(s): JOHN Y CHEN ; CHEN JOHN

Agent(s): GOWLING LAFLEUR HENDERSON LLP; APPLIED ELASTOMERICS INC; JOHN Y CHEN APPLIED ELASTOMERICS INC

Designated states: AT AU BE BR CA CH CN CZ DE DK ES FI FR GB GE GR HU IE IT JP KR LU MC NL NO NZ PL PT RO RU SE US VN

7) Family number: 22441800 (US1997371A)

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Title: PICTURE TRANSMITTING DEVICE

Abstract: [Classes 40 (iii) and 40 (v).] In television scanning apparatus using moving slots, at least one of the slots is formed by a narrow zone 18, Fig. 2, moving through, and modifying the properties of, a transparent medium 13 so that only light passing through the zone acts on a photo-electric cell 17 or receiving screen, and the zone is formed by an elastic compression or **shock wave** moving through the medium with a speed depending only on the material of the medium. Light from an object 11 passes through a polarizer 12, and an analyser 14 is arranged to transmit only light which has passed through the zone 18. As shown, the second scanning movement is obtained by a zone 19 in a second medium 15, but it may be obtained by slots in a rotating drum, Fig. 16 (not shown), or an oscillating mirror, Fig. 17 (not shown). The impulse is applied to the medium 24, Fig. 3, by a condenser plate 21, to which a charge is applied periodically by an oscillating neon tube 36. According to modifications: the condenser plates are at right-angles to the direction of propagation and the impulses are limited by an earthed ring, Fig. 5 (not shown); the impulse is applied by the condenser dielectric, Fig. 4 (not shown); the condenser applying the impulse comprises a metallic **electrode** applied directly to a semi-conductive **electrode** of agathe, liquids, or slate, the surface of **separation** constituting the dielectric. Generating oscillations. The electric oscillations are applied to the condenser from an oscillating neon tube directly, Fig. 7 (not shown), or through a valve amplifier, Fig. 8 (not shown), which may be coupled to the neon tube by a transformer, Fig. 9 (not shown). According to modifications: the oscillations are applied to the condenser 39 from a four-**electrode** oscillator 43, Fig. 10; each impulse consists of a train of rapid vibrations produced by valve oscillators 44, 45 controlled by a neon tube 36, Fig. 18. Synchronizing. At the transmitter, Fig. 11, neon tubes 51, 52 apply impulses to each scanning medium, and a master oscillating neon tube 57 starts each scanning movement and transmits a control signal through a valve 58. The valves may be supplied by common batteries, Fig. 13 (not shown). At the receiver, the signal to start each scanning movement acts on thermionic valves directly, Fig. 14 (not shown), or through a neon tube, Fig. 12 (not shown), or a mechanical vibrator such as a tuning fork. Colour television. Reproduction in colour may be obtained by passing the light at the transmitter and receiver through similar multi-coloured gratings, or by transmitting three different colours in rotation.

Classifications:

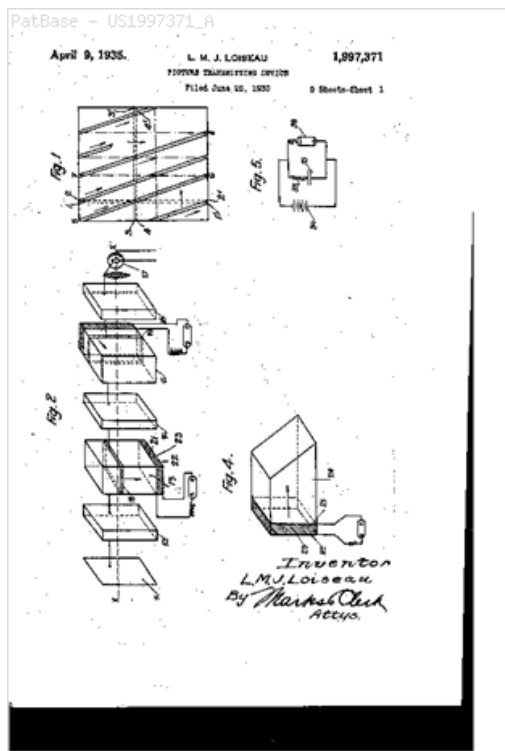
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International (IPC 1-7): H04N3/10 H04N7/00

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US: 315/55 348/195 348/198 348/E03.011 348/E05.085 348/E3.011 348/E5.085 359/246 359/251 359/259



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: LOUIS MARIE JEAN LOISEAU

Assignee(s): (std): CFCMUG ; COMPANIE POUR LA FABRICATION D ; LOUIS MARIE JEAN LOISEAU ; JEAN LOISEAU LOUIS MARIE ; IG FARBENINDUSTRIE AG ; TANNERIES D ARCUEIL SOC D ; A BLACHERE ET SES FILS SA DES ; A BLACHERE ET SES FILS SA DES

Assignee(s): ANONYME DES A BLACHERE ET SES FILS ETS SOC ; SOCIETE DES TANNERIES D ARCUEIL ; SOCIETE ANONYME DES ETABLISSEMENTS A BLACHERE ET SES FILS ; POUR LA FABRICATION DES COMPTEURS ET MATERIEL D USINES A GAZ COMP ; DES TANNERIES D ARCUEIL SOC ; COMPAGNIE POUR LA FABRICATION DES COMPTEURS ET MATERIEL D USINES A GAZ ; COMPANIE POUR LA FABRICATION DES COMPTEURS ET MATERIEL D USINES A GAZ ; SOCIETE ANONYME DES ETABLISSEMENTS A BLACHERE ET S ; I G FARBENINDUSTRIE AKTIENGESellschaft

Inventor(s): (std): DUBOS BERNARD JEAN ; HEWITT HERBERT STAYTON ; JEAN LOISEAU LOUIS MARIE ; LOISEAU LOUIS MARIE JEAN ; WHATMOUGH WILFRED AMBROSE

8) Family number: 32438426 (US2002023579A)

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Title: High speed electric watercraft

Abstract: High speed electric watercraft of various configurations are provided that utilize at least one submerged enclosed hull containing an electric motor and at least one other parallel float positioned higher than the enclosed hull to provide buoyancy for a platform that can carry one or more individuals above a water surface. The watercraft optionally include features of (1) a rounded front end on the platform, (2) a platform length that is shorter than the float for stability against tipping, (3) entryways that do not require stepping over a vessel hull, (4) dimensions fore and aft that minimize spray onto the rear of the platform, (5) **shock** absorbers to provide a smoother ride, and (6) adjustable struts that connect floats with the platform to allow control of the platform height above the water surface. These and other features are made possible by a fast electric design that avoids certain problems of vessel type watercraft.

Classifications:

International (ipc 8-9): B63B1/10 B63B1/12 B63B1/14 B63B43/04 B63B43/18 B63H1/18 B63H1/28 B63H20/36 B63H21/17 B63H21/22 B63H5/16 G01S15/04 G01S15/87 G01S15/88 G01S7/521 H03K17/945 (Advanced/Invention); B63B1/10 B63B39/00 B63H23/24 (Advanced/Non-invention); B63B43/00 B63H1/00 B63H20/00 B63H21/00 B63H5/00 G01S15/00 G01S7/521 H03K17/94 (Core/Invention); B63H23/00 (Core/Non-invention)

International (ipc 1-7): B60L11/02 B63B1/00 B63B1/10 B63B1/12 B63B35/73 B63B43/04 B63H21/17 B63H21/22 G08B23/00 H02P5/46

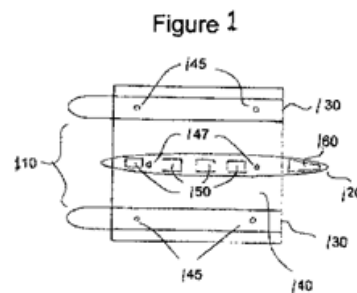
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European: B63B1/10C B63B1/12 B63B1/12M B63B1/14 B63B43/04 B63B43/18 B63H1/18 B63H1/28 B63H20/36 B63H21/17 B63H21/22 B63H23/30 B63H23/32 B63H5/16G G01S15/04 G01S15/87 G01S15/88 G01S7/521 H03K17/945 L63B1/10C L63B39/00V L63H23/24 Y02T70/52B Y02T90/46

US: 114/121 114/283 114/61.1 114/61.100P 114/61.12 114/61.120P 114/61.13 114/61.14 318/109 318/109P 340/979 340/984 340/995.27 440/1 440/2 440/49 440/6 440/63 440/6P 440/6S 440/71 440/76

PatBase - US2002023579_AA

Patent Application Publication Feb. 28, 2002 Sheet 1 of 15 US 2002/0023579 A1



Family:

Publication number	Publication date	Application number	Application date
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CA2298957 AA	20000818	CA20002298957	20000215
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US7335071 BA	20080226	US20050287381	20051128

Priority:

US19980076002P	19980226	US19990252038	19990218	CA20002298957	20000215
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US20030445249P	20030206	US20030474957P	20030603	US20030620618	20030717
US20030724240	20031201	US20040754608	20040112	US20050287381	20051128

Probable Assignee: MARUTA ELECTRIC BOATWORKS LLC

Assignee(s): (std): MARUTA ELECTRIC BOATWORKS ; MARUTA ELECTRIC BOATWORKS L L ; MARUTA ELECTRIC BOATWORKS LLC ; PROFITT JAMES ARTHUR ; PEEK JOSEPH TIMOTHY ; MOTSENBOCKER KAYO ; MOTSENBOCKER MARVIN ANDREW ; HINKELMANN KLAUS ; MOTSENBOCKER MARVIN ; MARUYAMA KAYO ; MOTSENBOCKER MARVIN A

Assignee(s): MARVIN MOTSENBOCKER ; MOTSENBOCKER MARVIN MOTSENBOCKER KAYO ; KAYO MOTSENBOCKER ; MURATA ELECTRIC BOATWORKS LLC ; MARUTA ELECTRIC BOATWORKS L L C

Inventor(s): (std): MOTSENBOCKER MARVIN ; MOTSENBOCKER KAYO ; PROFITT JAMES ARTHUR ; PEEK JOSEPH TIMOTHY ; MOTSENBOCKER MARVIN ANDREW ; MOTSENBOCKER MARVIN A

Inventor(s): MARVIN ANDREW MOTSENBOCKER ; MARVIN MOTSENBOCKER ; KAYO MOTSENBOCKER ; MARVIN A MOTSENBOCKER

Agent(s): PAT DONOGHUE

9) Family number: 31030215 (US2004099050A)

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Title: MACHINE FLUID SENSOR AND METHOD

Abstract: A method for analyzing a fluid contained within a machine, comprising the steps of providing a machine including a passage for containing a fluid; placing a sensor including a mechanical resonator in the passage; operating the resonator to have a portion thereof translate through the fluid; and monitoring the response of the resonator to the fluid in the passage. A preferred sensor includes a tuning fork resonator.

Classifications:

International (IPC 8-9): F02D45/00 F25B41/04 F25B49/00 G01B9/02 G01F23/00 G01F23/22 G01F23/296 G01L7/00 G01N11/00 G01N11/10 G01N11/16 G01N19/02 G01N24/00 G01N27/00 G01N29/00 G01N29/02 G01N29/03 G01N29/036 G01N29/22 G01N29/30 G01N29/34 G01N29/36 G01N29/44 G01N3/56 G01N31/00 G01N33/28 G01N33/487 G01N9/00 G01N9/10 G01R27/00 G06F19/00 H03H3/02 H04R17/00 H04R31/00 (Advanced/Invention); G01N11/16 G01N33/28 G01N33/30 G01N35/00 G01N35/08 G01N9/00 (Advanced/Non-invention); F02D45/00 F25B49/00 G01B9/02 G01F23/00 G01F23/296 G01L7/00 G01N11/00 G01N11/10 G01N19/02 G01N27/00 G01N29/00 G01N29/02 G01N29/22 G01N29/34 G01N29/36 G01N29/44 G01N3/56 G01N31/00 G01N33/26 G01N33/487 G01N9/00 G01R27/00 G06F19/00 H04R17/00 (Core/Invention); G01N33/26 (Core/Non-invention)

International (IPC 1-7): F25B49/00 G01F23/296 G01L7/00 G01N11/00 G01N11/10 G01N11/16 G01N19/02 G01N24/00 G01N27/00 G01N29/00 G01N29/02 G01N3/56 G01N31/00 G01N33/20 G01N33/487 G01N9/00 G06F19/00 H03H3/02

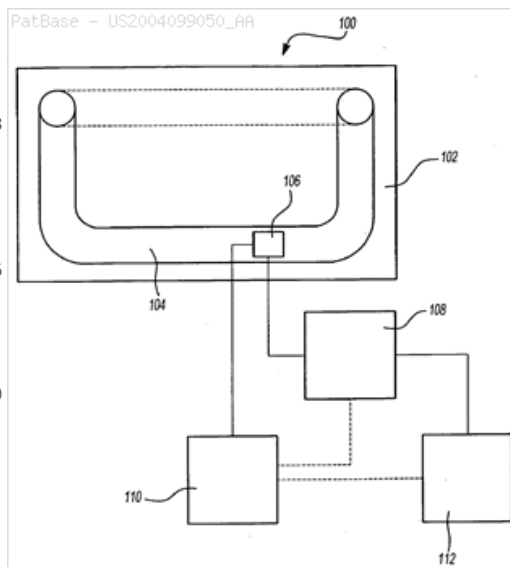
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European: F02D41/02C G01F23/296H G01F23/296H2 G01F23/296T G01N11/16 G01N29/02F G01N29/036 G01N29/22F G01N29/22L G01N29/22T G01N29/30 G01N29/34 G01N29/34B1 G01N29/34F G01N29/36 G01N33/28 G01N9/00B R02D200/0611 R02D250/11 S01N11/16 S01N291/01D S01N291/022C S01N291/022H S01N291/024C S01N291/025D S01N291/025E S01N291/025F S01N291/025G S01N291/028D S01N291/028F S01N291/028P S01N291/042C S01N291/042E S01N291/042H S01N291/042J S01N291/101 S01N33/30 S01N35/00D5 S01N35/08F S01N9/00B S01N9/00B2

US: 123/350 29/25.35 29/253.5 29/594 29/609.1 310/319 310/370 324/682 324/683 324/698 324/722 331/154 331/156 331/158 333/186 333/187 333/200 356/478 62/125 62/129 62/131 62/225 702/25 702/50 702/50P 702/52 702/54 702/57 73/10 73/24.01 73/24.06 73/31.06 73/32A 73/53.01 73/53.02 73/53.05 73/54.01 73/54.010 73/54.41 73/570 73/570P 73/61.45 73/61.450P 73/61.49 73/64.42 73/64.53 73/64.530 73/64.530P 73/64.530S

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Priority:

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WO2004US08526	20040319	WO2004US08531	20040319	WO2004US08552	20040319
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US20070837415	20070810	US20080059801	20080331	US20100783397	20100519

Probable Assignee: MEAS FRANCE

Assignee(s): (std): DALES G CAMERON ; GUAN SHENHENG ; FELAND JOHN ; DOBRINSKI HEIKO ; HELLA HUECK AND CO KG ; GAMMER VLADIMIR ; HELLA KG HUECK AND CO ; HELLA KGAA HUECK AND CO ; FELAND III JOHN M ; PINKAS DANIEL M ; SPITKOVSKY MIKHAIL ; UHRICH MARK D ; SYMYX TECHNOLOGIES INC ; KOLOSOV OLEG ; MATSIEV LEONID ; LUDTKE OLAF ; KOLOSOV OLEG V ; SPITOVSY MIKHAIL B ; PADOWITZ DAVID ; BENNETT JAMES ; BUHRDORF ANDREAS ; RUST WILLIAM ; MEAS FRANCE ; VARNI JOHN F ; WULLNER DIRK ; VISYX TECHNOLOGIES INC ; WALKER BLAKE

Assignee(s): MEASUREMENT SPECIALITIES INC ; DALES G ; SYMYX TECHNOLOGIES INC

Inventor(s): (std): BENNETT JAMES ; PINKAS DANIEL M ; SPITKOVSKY MIKHAIL ; GUAN SHENHENG ; UHRICH MARK D ; FELAND JOHN ; KOLOSOV OLEG V ; SPITKOVSKY MIKHAIL B ; GAMMER VLADIMIR ; KOLOSOV OLEG ; MATSIEV LEONID ; VARNI JOHN F ; DALES G CAMERON ; LUDTKE OLAF ; WULLNER DIRK ; BUHRDORF ANDREAS ; DOBRINSKI HEIKO ; SPITOVSY MIKHAIL B ; PADOWITZ DAVID ; UHRICH MARK ; PADOWITZ DAVE ; LOW ERIC ; DALES G C ; SHENHENG GUAN ; MARK D UHRICH ; JAMES BENNETT ; JOHN F VARNI ; MIKHAIL SPITKOVSKY ; OLEG KOLOSOV ; LEONID MATSIEV ; DANIEL M PINKAS ; JOHN FELAND ; DALES G ; VARNI JOHN ; SPITOVSY MIKHAIL ; LUEDTKE OLAF ; FELAND III JOHN M ; WALKER BLAKE ; FELAND JOHN M III ; RUST WILLIAM

Inventor(s): FELAND JOHN MIII ; FELAND JOHN M ; PINKAS DANIEL ; KOLOSOV OLEG SAN JOSE ; DALES G CAMERON SARATOGA ; MATSIEV LEONID SAN JOSE ; VARNI JOHN F LOS GATOS

Agent(s): RIDOUT AND MAYBEE LLP; KOENIG SZYNKA TILMANN VON RENESSE PATENTANWAELTE PARTNERSCHAFT MBH; FERAY VALERIE ET AL; FERAY VALERIE; CHRISTOPHER J VOCI; MARTINE PENILLA AND GENCARELLA LLP; SENNIGER POWERS (SMX); SENNIGER POWERS SMX; SYMYX TECHNOLOGIES INC, LEGAL DEPARTMENT; SYMYX TECHNOLOGIES INC LEGAL DEPARTMENT; SENNIGER POWERS LLP; HOWARD IP LAW GROUP; MARTINE AND PENILLA LLP; SENNIGER POWERS; HOWARD IP LAW GROUP PC

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

10) Family number: 47032447 (US2010251692A)

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Title: METHODS OF COMBINING A SERIES OF MORE EFFICIENT AIRCRAFT ENGINES INTO A UNIT, OR MODULAR UNITS

Abstract: The present invention generally relates to units of engines and more particularly to units containing a unique combined-cycle (combustion-detonation) "counter-rotation, anti-gyration, gyroscopic," turbine fan-jet/free-piston engine configuration for induced air supercharging and boosting the performance of novel Ramjet engines or Ramjet engine configurations by improving internal air-stream dynamics. These dynamics are the result of co-operative air stream intermixing through convergent, supercharge-attenuated, inducted, compressed, tuned, pre-heated ambient air. Achieved through the varying of the geometric structural form and the utilization of unique engines and air induction and propulsion conformations, aided with supplemental air, fuel, oxygen and optional water and electrolyte charging.

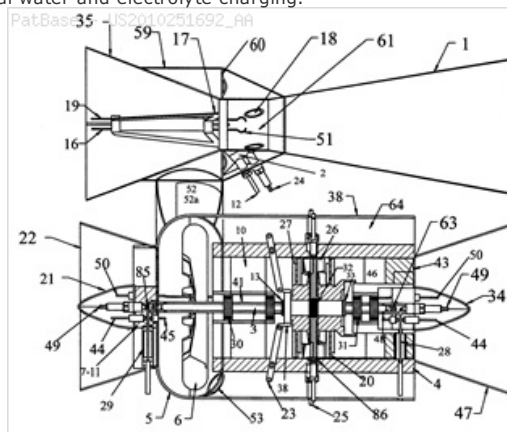
Classifications:

International (IPC 8-9): F02C7/36 F02K3/00 F02K7/08 F02K7/10 F02K7/16 (Advanced/Invention)

CPC: F05D2220/10 F02K7/16 F02K5/026

European: F02K5/02C F02K7/16 R05B220/10

US: 60/224 60/226.1 60/226.100P 60/39.15 60/767 60/767S



Family:

Publication number	Publication date	Application number	Application date
US2010251692 AA	20101007	US20070702047	20070205
US7937945 BB	20110510	US20070702047	20070205
US8453428 BA	20130604	US20110102355	20110506

Priority:

US20060854625P 20061027 US20070702047 20070205 US20110102355 20110506

Probable Assignee: KINDE SR RONALD AUGUST

Assignee(s): (std): KINDE SR RONALD AUGUST

Inventor(s): (std): KINDE SR RONALD AUGUST

Agent(s): YOUNG BASILE

11) Family number: 855199 (US3427978A)

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Title: ELECTRO-HYDRAULIC TRANSDUCER

Abstract: ABSTRACT OF THE DISCLOSURE

An electro-osmotic closed system is provided comprising a container having two chambers completely separated by a porous diaphragm having pores permitting flow between the chambers with pore openings not larger than .10 to 10.0 microns. The system is completely filled with a purified, non-aqueous liquid having a hydrocarbon portion and a polar group and having a dielectric constant between 5 and 100. Electrodes are provided in said liquid on opposite sides of the diaphragm and these are chemically inert to the liquid when subjected to an electrical potential. An electrical conductor leads from each electrode to a point outside of the container. A small amount of a redox material is added to the nonaqueous liquid so that when an electrical potential of opposite polarity is applied to the two electrodes, the oxidation occurring at the anode substantially exacting balances the reduction occurring at the cathode so that the composition of the ionizing liquid remains in operational stable condition over a period of a number of hours during the continuous application of an electrical potential of 200 volts and higher to the electrodes. In one application of the invention, an electrical potential between 200 and 1500 volts is applied to the electrodes causing an electro-kinetic effect which tends to cause movement of the ionizing liquid through the pores of the diaphragm. In another application of the invention, means is provided for applying a pressure between the two liquid filled chambers whereby to produce an electrical potential between the two electrodes. This application is a continuation-in-part of our copending application Ser. No. 393,834, filed Sept. 2, 1964, now abandoned.

Classifications:

International (IPC 8-9): F15B5/00 F15C1/04 F15C3/16 F15D1/08 F16C33/10 F16N13/06 G01D5/18 G01P1/10 G06D1/02 G21D7/02 (Advanced/Invention);

F02B3/06 (Advanced/Non-invention);

F15B5/00 F15C1/00 F15C3/00 F15D1/00 F16C33/04 F16N13/00

G01D5/12 G01P1/00 G06D1/00 G21D7/00 (Core/Invention);

F02B3/00 (Core/Non-invention)

International (IPC 1-7): B01D17/06 B01K3/10 F15B5/00 F15C1/04

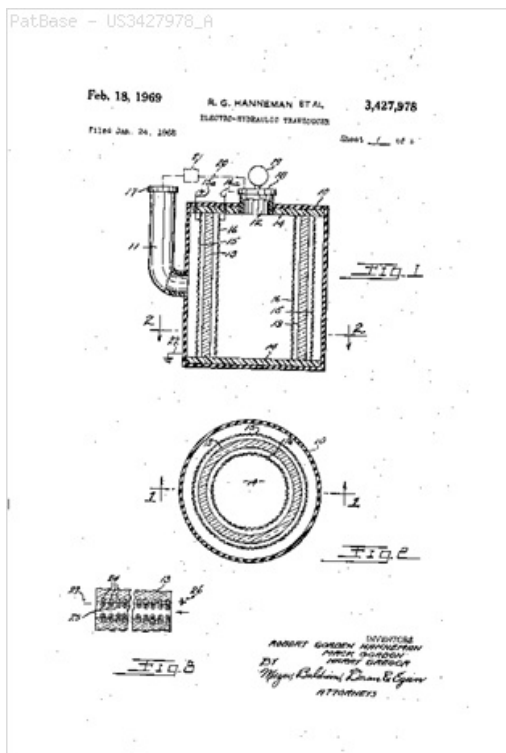
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H01G9/02 H02N4/20

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European: B01D61/56 G01P1/10 R02B3/06

US: 103/1 204/296 310/300 361/434 417/48

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

US19640393834 19640902 FR19650030186 19650902 US19680700149 19680124

Probable Assignee: ELECTRO DYNAMICS INC

Assignee(s): (std): ELECTRO DYNAMICS INC ; GORDON MACK ; MACK GORDON

Inventor(s): (std): GORDON MACK ; GREGOR HARRY ; HANNEMAN ROBERT GORDEN ; P GREGOR DR HARRY ; GORDON HANNEMAN R

Inventor(s): HARRY GREGOR ; MACK GORDON ; ROBERT GORDEN HANNEMAN

12) Family number: 22663899 (GB1056074A)

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Title: ELECTROHYDRAULIC PROCESSES AND APPARATUS FOR INITIATING CHEMICAL AND PHYSICAL REACTIONS

Abstract: Mechanically bound constituents of differing elasticity coefficients in a solid are selectively **separated** by immersing the solid in a liquid, subjecting it to a series of high-intensity sparks and collecting the **separated** constituents, the sparks being repeated at intervals of less than half the attenuation time. In specific embodiments (a) hematite is comminuted and then **separated** by xanthate floatation, (b) a tin is reduced to particles minus 50 mesh of steel or tin, (c) a slurry of sphalerite in water is treated in the presence of air to give SO₂ and ZnO which was separable from slurry and (d) a slurry of iron oxide and a liquid **hydrocarbon** were treated and the resultant mixture fed to a magnetic **separator** to give magnetite and iron, a high frequency induction coil being used to aid the reaction. In one embodiment of the apparatus of the invention (Fig. 2), material is added at 17 to tank 16 containing **electrodes** 15 and stirrer 21. The tank contains screens 20 to retain material of predetermined size whilst an annular trough may be provided around the upper rim of the trough if float/sink **separation** is used. In another embodiment (Fig. 3) suitable for continuous use, gas is fed through pipe 24 to the solid suspended in the liquid medium. A conical feed deflector 27 may be used while the leads for the discharge are insulated at 23 from vessel 16. The vessel may be cooled by water-coils if required. In another embodiment Fig. 4, (not shown) a high frequency induction coil is provided to heat the vessel, insulation being placed around the vessel and heating coils. A series of reactors or a recycling system may be used if the degree of reaction in a single stage is not satisfactory e.g. in endothermic reactions. ALSO: Mechanically bound constituents of differing elasticity coefficients in a solid are selectively **separated** by immersing the solid in a liquid, subjecting it to a series of high-intensity sparks and collecting the **separated** constituents, the sparks being repeated at intervals of less than half the attenuation time. In Example 3, a slurry of sphalerite in water is treated in the presence of air to give SO₂ and ZnO which was separable from the slurry. In one embodiment of the apparatus of the invention (Fig. 2), material is added at 17 to tank 16 containing **electrodes** 15 and stirrer 21. The tank contains screens 20 to retain material of predetermined size whilst an annular trough may be provided around the upper rim of the trough if float/sink **separation** is used. In another embodiment (Fig. 3) suitable for continuous use, gas is fed through pipe 24 to the solid suspended in the liquid medium. A conical feed deflector 27 may be used while the leads for the discharge are insulated at 23 from vessel 16. The vessel may be cooled by water-coils if required. In another embodiment (Fig. 4, not shown) a high frequency induction coil is provided to heat the vessel, insulation being placed around the vessel and heating coils. A series of reactors or a recycling system may be used if the degree of reaction in a single stage is not satisfactory, e.g. in endothermic reactions.

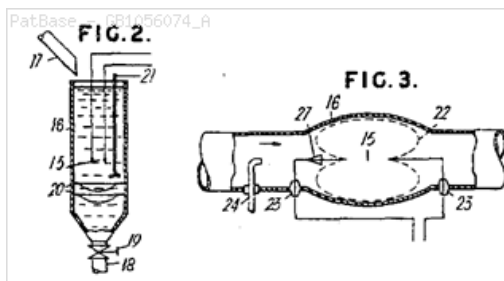
Classifications:

International (IPC 8-9): B01J19/08 B01J3/08 B02C19/18 B03B1/00 B32B27/00 C01B13/11 C01B13/32 C01G1/06 C01G9/02 C02F1/00 C02F1/46 C02F1/461 C02F1/48 C02F1/76 C22B1/02 D21C3/22 D21F1/36 G10K15/06 (Advanced/Invention); B01J19/08 B01J3/06 B02C19/00 B03B1/00 B32B27/00 C01B13/11 C01B13/32 C01G1/06 C01G9/00 C02F1/00 C02F1/46 C02F1/461 C02F1/48 C22B1/00 D21C3/00 G10K15/04 (Core/Invention)

International (IPC 1-7): B01J19/08 G10K10/00

CPC: B01J3/08 B01J19/088 B03B1/00 B32B27/00 C01B13/322

C01G1/06 C01G9/02 C02F1/4608 C02F1/48 D21C3/224 G10K15/06
European: B01J19/08D2 B01J3/08 B03B1/00 B32B27/00
 C01B13/32B C01G1/06 C01G9/02 C02F1/46J C02F1/48 D21C3/22C
 G10K15/06



Family:

Publication number	Publication date	Application number	Application date
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AU3272863 B1	19650104	AU19630032728	19630708
BE634654 A	19631118	BE19630634654	19630708
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JP48017984 B4	19730602	JP19630035195	19630708
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Priority:

US19620208387 19620709

Probable Assignee: ARNOLD THEODORE ERNEST

Assignee(s): (std): ARNOLD THEODORE ERNEST ; THEODORE ERNEST ARNOLD

Inventor(s): (std): ARNOLD THEODORE ERNEST

Inventor(s): THEODORE ERNEST ARNOLD

13) Family number: 2873778 (WO8607412A1)

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Title: EXHAUST GAS CLEANING DEVICE FOR INTERNAL COMBUSTION ENGINES

Abstract: The elimination of noxious gases is effected by additive exchange processes on elementary particles and electric charges of exhaust gas particles in a treatment process controlled by microprocessors, by the phasing of converted motor explosion **waves** + extra-subjectively produced ultrasonic **waves** + induced **electrodynamic** alternating fields in exhaust states with the effect of collision ionization and inductively coupled total plasma with charge neutralization; during total noxious gas transformation into non-poisonous natural material this leads to a reduction in the number of non-uniform exhaust gas processes and of varying efficiencies. The postcombustion of **hydrocarbons** and carbon monoxide presents no problem. The physical/energy process should above all lead to an extremely thorough elimination of NO-particles. The additive reactor process takes place after the motor in an annexed device, mainly consisting of a multi-stage reactor, designed for harmonic forces, US excitation, electromagnetic, electromechanical- and microelectronic components, whose system brings about a specific synergetic and dynamic elimination of noxious gases. This is due to the fact that combustion chemical energy potential differences of the energy carriers fed to the mechanical motor system are cancelled by positive entropy maximization in the exhaust gas with the aid of purely physical action quantities, without affecting proven criteria in the case of power machines with a rotating output shaft, with the free choice of fuel and without an increased consumption in the latter.

Classifications:

International (IPC 8-9): B01J19/12 F01N3/00

F01N3/08 (Advanced/Invention);

F02B1/04 (Advanced/Non-invention);

B01J19/12 F01N3/00 F01N3/08 (Core/Invention);

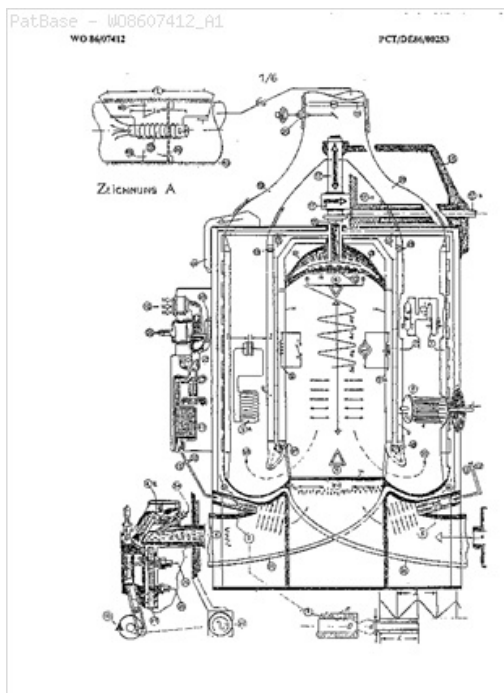
F02B1/00 (Core/Non-invention)

International (IPC 1-7): F01N3/00 F01N3/08 F01N3/10 F01N5/04

F01N9/00 F02B75/10

CPC: Y02T10/20 B01J19/12 F01N3/00 F01N3/0892 F02B1/04

European: B01J19/12 F01N3/00 F01N3/08C R02B1/04



Family:

Publication number	Publication date	Application number	Application date
AT68240 E	19911015	AT19860903252T	19860616
DE3521462 A1	19861218	DE19853521462	19850614

DE3521462 C2	19931021	DE19853521462	19850614
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EP0227711 B1	19911009	EP19860903252	19860616
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Priority:

DE19853521462 19850614 DE19863681897 19860616 WO1986DE00253 19860616
EP19860903252 19860616

Probable Assignee: BRITZ GUENTER J 5480 REMAGEN DE

Assignee(s): (std): BRITZ GUENTER J ; BRITZ GUNTER J

Assignee(s): BRITZ GUENTER J 5480 REMAGEN DE

Inventor(s): (std): BRITZ GUENTER J ; BRITZ GUNTER J

Inventor(s): J BRITZ GUENTER

Designated states: AT BE BR CH DE FR GB IT JP LI LU NL SE US

14) Family number: 3310996 (US4895206A)

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Title: Pulsed in situ exothermic **shock wave** and retorting process for **hydrocarbon** recovery and detoxification of selected wastes

Abstract: An active combustion zone is established in situ within a permeable **hydrocarbon** formation. The permeable formation is periodically charged with a combustible gas, and is thereafter subjected to a high pressure pulse produced by detonation of the combustible gas within an injection well. The periodic pressure pulses drive the combustible gas into the in situ combustion zone. Combustion is sustained by injection of an oxidant. The injection of oxidant is terminated periodically, and the injection well along with the surrounding formation is pressurized and saturated with the combustible gas mixture. The combustible gas mixture is displaced through the permeable formation in advance of the combustion flame front in response to a high pressure pulse produced by detonation of the pressurized combustible gas within the injection well. In the preferred embodiment, the combustible injection gas is a mixture of hydrogen gas and chlorine gas. As the hydrogen/chlorine gas mixture undergoes combustion, a large volume of high pressure, high temperature hydrogen chloride gas is produced, together with an aqueous solution of hydrochloric acid. The hydrochloric acid is forced into the surrounding permeable formation, and reacts with the carbonaceous materials to **separate** nitrogenous, sulphurous and arsenic compounds from the liquid oil product, by precipitation during distillation.

Classifications:

International (IPC 8-9): C09K8/60 E21B43/16

E21B43/247 (Advanced/Invention);

C09K8/60 E21B43/16 (Core/Invention)

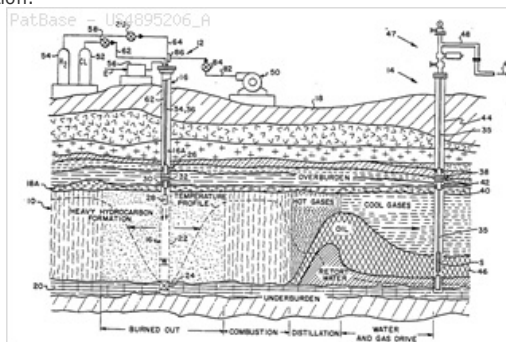
International (IPC 1-7): E21B43/00 E21B43/16 E21B43/243

E21B43/263 E21B43/27

CPC: C09K8/60 E21B43/247

European: C09K8/60 E21B43/247

US: 166/259 166/260 166/270 166/270.1 166/271 166/299 166/300
166/307 166/63 166/65.1



Family:

Publication number	Publication date	Application number	Application date
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US4945984 A	19900807	US19890393375	19890814

Priority:

US19890324398 19890316 US19890393375 19890814 CA19902008826 19900129

Probable Assignee: PRICE ERNEST H

Assignee(s): (std): PRICE ERNEST H

Assignee(s): ERNEST H PRICE

Inventor(s): (std): PRICE ERNEST H

Inventor(s): ERNEST H PRICE

Agent(s): MOFFAT AND CO

15) Family number: 1584888 (DD140121A)

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Title: VERFAHREN UND EINRICHTUNG ZUR HERSTELLUNG VON GEGENSTAENDEN AUS FASERVERSTAERKTEN WERKSTOFFEN
PROCEDURE AND DEVICE FOR THE PRODUCTION OF OBJECTS OF CHOCKS MATERIALS (Machine translation)

Abstract: Source: DD140121A [DE] [Source: Claim 1] ¥P B 2 \$ d / 191 129 Erfindungsanspruch: 1. Verfahren zur Herstellung von Gegenstaenden' aus faserver- staerkten Werkstoffen, insbesondere aus Schichten oder Auf- tragsschichten aus £ a servers tuerkten Kunststoffen und an- deren Werkstoffen auch unterschiedlicher chemischer Zu- sammensetzung und/oder Dichte, bei dem die 11 Werkstoffe in der jeweils erforderlichen Zusammensetzung, Form, Menge und Zeiteinheit den einzelnen Herstellungsstufen bzw. Vor- richtungen zugefuehrt und dort be- bzw, verarbeitet werden, wobei die mit Haerter und/oder Beschleuniger und/oder Akti- vatoren bzw. Sensibilisatoren und/oder Thixotropiermitteln oder dergleichen gemischten Werkstoffe und/oder die Schi- chten auf unbewegte oder bewegte bzw. transportierte oder gedrehte Oberflaechen von Unterlagen, Kernen oder Her- stellungsformen oder in diese gebracht werden und die Formung und/oder Traenkung und Benetzung, insbesondere der Verstaerkungsmaterialien mit den vorzugsweise aus unge- saettigten Polyestern oder aus Epoxidharzen bestehenden Bindemittel und ihre blasenfreie Verdichtung und Aus- richtung durch auf

diese periodisch uebertragene kinetische Energie vorzugsweise in Form von mechanischen Schwingungen, mit gleichzeitiger oder anschliessender Formung und/oder Verfestigung, vorzugsweise durch Energiezufuhr, insbesondere durch geeignete elektromagnetische Wellen, durchgefuehrt wird und bei dem die mechanischen Schwingungen durch elastisch deformierbare duenne Schichten auf die Werkstoffe uebertragen werden, insbesondere zur Erzeugung von mechanischen und/oder Ultraschallschwingungen und eines luftblasenfreien Verbundes in den Werkstoffen, in und/oder zwischen den Schichten und zur Orientierung der Werkstoffkomponenten im Plast, nach Pafouf 43 percent *4) gekennzeichnet dadurch, dass drucklos eine offene vorzugsweise verschliessbare, ein- oder mehrteilig ausgebildete, erwaermbare oder bereits erwaermte Herstellungsform oder ein Kern und/oder ein zu beschichtender Formkoerper mit kalten oder erwaermten riesel- oder schuetftaehigen, z. B. pulver- und/oder haecksel- und/oder schnitzel- und/oder flocken- und/oder nadel- und/oder granulat- und/oder teigfoermigen und/oder fluessigen, ggf. vorgehaerteten Buero- und/oder geeigneten Thermoplasten und/oder solchen Schmelzklebstoffen und/oder Elastomeren, letztere z. B. im noch unvemetzten Zustand als Monomer (z. B. durch direkte Polymerisation von Kaprolaktam zum Polyamid oder durch Vulkanisation von Naturkautschuk oder Buna (Ithogummi) zu elastischen Vulkanisaten oder dergleichen in situ) verstaerkungsmateriallos, vorzugsweise jedoch gemischt mit insbesondere gewellten Verstaerkungsmaterialkurzfasern und/oder "Whiskers und/oder bereits mit den Verstaerkungsmaterialien verbundenen und/oder verbackenen genannten Platten und/oder Elastomeren dosiert gefuellt und/oder dass ein Teil oder die gesamte innere und/oder aeuessere erwaermbare oder erwaermte Oberflaeche der genannten Herstellungsform oder des Kernes oder zu beschichtenden Formkoerpers mit den genannten riesel- oder schuetftaehigen oder teigfoermigen verstaerkungsmateriallosen oder verstaerkten genannten Werkstoffen und/oder Schichten und/oder Platten w- 191 129 und/oder Vorformlingen und/oder Halbzeugen aus den genannten Buero- und/oder Thermoplasten und/oder Elastomeren und/oder den Polymeren und/oder Wichtpolymeren und/oder weiteren Werkstoffen, z. B. aus Metall in der dem jeweiligen Anwendungszweck oder Belastungsfall erforderlichen Reihenfolge gleichmaessig oder belastungsfallabhaengig in unterschiedlicher Dicke beschichtet und anschliessend mit mindestens einem als Kern und/oder Gegenform dienenden und mit mindestens einem unkompressiblen schuetftaehigen festen und/oder fluessigen, ggf. magnetisch beeinflussbaren oder magnetischen insbesondere ferromagnetischen, mehrfach unverbrauchbar benutzbaren Medium vorzugsweise hoeherer Wichte als die genannten riesel- bzw. schuetftaehigen oder fluessigen Werkstoffe fuer die jeweilige Herstellung zu fuellenden hochfesten, aus flexiblem temperatur- und gegenueber den genannten Werkstoffen chemisch stabilem bzw. resistentem, vorzugsweise im Volumen vergroesserbarem, in Form und Groesse dem herzustellenden oder zu beschichtenden Formkoerper oder dem entsprechenden Hohlraum anpassbarem offenen oder verschliessbaren Pressbehaelter bedeckt und belastet wird, wonach die Herstellungsform und/oder der Kern und/oder der zu beschichtende Formkoerper oder Rehaelter teilweise oder vollstaendig mit einem Deckel oder einer, ggf. den Pressbehaelter formenden Gegenform, ggf., bis auf Entlueftungsoeffnungen verschlossen 1 und der Pressbehaelter mit dem genannten, ggf. bereits erwaermten Medium gefuellt und das Medium und der Pressbehaelter unter konstanten, jedoch in der Groesse Steuer- oder regelbaren Pressanfangsdruck gesetzt bzw. vorgespannt wird und davor, dabei und/oder danach die Herstellungsform usw. und/oder ihre oder seine Oberflaeche, das Medium und/oder der Pressbehaelter in mechanisch und/oder hydraulisch- und/oder elektrohydraulisch und/oder magnetisch oder dergl. erzeugte und in Frequenz, Amplitude und Wirkzeit Steuer- oder regelbare, ggf. z. B. von unten nach oben mit Hilfe einer Vibrations- oder Wanderfeldfoerderstrecke, durch auf das Medium von aussen ausgeuebte und/oder im Medium erzeugte, auf die Werkstoffe und/oder Schichten nacheinander bis zur abgeschlossenen Benetzung, Verdichtung und Formung ausgeuebte Teildrucke in Form von Druck-, insbes. w- 191 129 insbes. Flussigkeitsdruckimpulsen oder Stosswellen und/oder Ultraschallschwingungen (insbes. 1 elstung s schall) und/oder durch direkt oder ueber eine Zwischenschicht oder Kaerrier an das Medium gekoppelte Schwingungs- oder Ultraschalluebertrager bei gleichzeitiger oder, weiterer Erwaermung von Form-, Kern- oder dergl. Oberflaeche und/oder Pressbehaelterwandung und/oder des Mediums insbes. unter gleichzeitiger Druckerhoehung bis zum Press- bzw. Verformungsenddruck die plastifizier- oder erweichbaren Werkstoffe oder Gegenstaende plastifiziert oder erweicht und/oder die fluessigen Werkstoffe erwaermt und dabei die gebildeten Schichten zu Formkoerpern, Hohlkoerpern oder Behaeltern oder zu Beschichtungen geformt, entlueftet und verdichtet und teilweise oder vollstaendig polymerisiert und verfestigt bzw. gehaertet werden, anschliessend das Medium, ggf. durch kaltes Medium ausgetauscht und danach aus dem Pressbehaelter transportiert; bzw. gepumpt und der Pressbehaelter aus oder von der ggf. abgekuehlten Form, 1 dem Kern oder dem // beschichteten Formkoerper oder Behaelter nach entsprechender Oeffnung der Form usw. entnommen wird, 2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass die auf oder in die Form, den Kern oder den zu beschichtenden Formkoerper gebrachten polymerisierbaren Werkstoffe, insbes. Bindemittel, z. B. ungesaettigten Polyester zuerst teilweise durch kurzzeitige voruebergehende Einwirkung mechanischer, insbes. von Ultraschallschwingungen durch Ausnutzung, des Thixotropie- und/oder des Ultraschalldepolymerisationseffektes in ihrer Viskositaet herabgesetzt bzw. depolymerisiert werden und dabei und/oder danach durch gezielte Einwirkung des durch die genannten Schwingungen erzeugten hohen Wechsellagesdruckes infolge des dabei auftretenden Ultraschallkapillareffektes in Sekundenschnelle in die Kapillaren und Kapillarspalten der ebenfalls auf oder in die Herstellung--form usw. gebrachten Verstaerkungsmaterialien gepresst werden und dabei die Verstaerkungsmaterialien innig und vollstaendig benetzen und dabei und/oder danach die auf diese Weise benetzten Verstaerkungsmaterialien bzw. erhaltenen Lamine durch auf ihre Oberflaeche einwirkenden Druck und/oder weitere mechanische und/oder Ultraschallschwingungen und/oder a- 191 129 Stossimpulse verdichtet, dabei von den Verstaerkungsineralien das ueberschuessige Harz bzw. Bindemittel entfernt wird und dabei und/oder danach unter Einwirkung von Waerme und Aufrechterhaltung des Druckes -mindestens bis zur Gelierung der Bindemittel - aufrechterhalten, die Schwingungsbehandlung unterbrochen und die Werkstoffe verfestigt bzw. polymerisiert oder gehaertet werden, 3. Verfahren nach Anspruch 1 und 2, dadurch gekennzeichnet, dass der auf das Medium, insbes. die Flussigkeit ausgeuebte Druck zuerst bis zum Pressanfangsdruck erhoehrt wird und danach unter weiterer kontinuierlicher oder dichte- und/oder schichtdicken- oder belastungsfallabhaengiger Druckerhoehung auf den unter Berstdruck der Herstellungsform liegenden, der Endschichtdicke der Materialien bzw. Werkstoffe und/oder Gegenstaende entsprechenden Pressendruck gebracht wird und davor und/oder dabei gleichzeitig durch diesen und/oder mindestens einen anderen Schwingungsuebertrager auf das Medium, insbes. auf die Flussigkeit die genannten Druckimpulse oder Stosswellen und/oder Ultraschallimpulse -derart ausgeuebt und in ihrem Druckverlauf bzw. in ihrer Wirkung gesteuert werden, dass die Impulse bzw. Grosse der Impulse vom Anfangs- (Resonanzfrequenz) in Richtung zum Enddruck verringert und die Impulsfrequenz ggf. amplitudenabhaengig vorzugsweise ebenfalls verringert, ggf. erhoehrt wird, wonach der Druck und/oder die Impulswirkung entweder eine definier- te Zeit aufrecht erhalten und/oder kontinuierlich oder abrupt bis auf Normaldruck reduziert wird, 4. Verfahren nach Anspruch 1 bis 3, dadurch gekennzeichnet, dass die innere und/oder aeuessere Oberflaeche der Herstellungsform, des Kernes und/oder des zu beschichtenden Formkoerpers zuerst entweder im Faser/Harz-Spritzverfahren oder nach Auf- oder Einbringung von trockenen Verstaerkungsmaterialien oder Verstaerkungsmaterialvorformlingen und/oder Eingiessen der fluessigen Bindemittel, insbes. von ungesaetigten Polyester- oder von Epoxidharzen und/oder von modifizierten Kunstharzen z. B. mit fluessigen oder fließfaehigen Thioplasten modifizierten Epoxidharzen und/oder aufschaeumbaren, z. B. durch Waerme aufschaeumbaren Werkstoffen und/oder von vorpolymerisierten und/oder schuetftaehigen oder flaechenfoermigen faserverstaerkten Werkstoffen, s. 1. Prepregs beschichtet wird und danach, ggf. nach Aufbringen weiterer genannter Schichten oder Gegenstaende der Pressbehaelter aufgebracht und die weiteren Verfahrensschritte durchgefuehrt werden, die Haertung bzw. Polymerisation insbes. durch Erwaermung des Mediums und/oder durch eine, eine hohe Siedetemperatur aufweisende Flussigkeit, z. E. 01, durchgefuehrt wird. 5. Verfahren nach Anspruch 1 bis 4, dadurch gekennzeichnet, dass die genannten Werkstoffe und/oder Gegenstaende in ihrer Ausgangsform vor ihrer Beschichtung und/oder nach ihrer Beschichtung und vor ihrer Verarbeitung zu Formkoerpern oder Beschichtungen zuerst elektrisch und/oder magnetisch leitend gemacht werden, z. B. durch Beschichten mit magnetisch und/oder elektrisch leitenden bzw. beeinflussbaren Materialien, z. B. durch Aufspruehen von magnetischen oder magnetisierbaren und/oder sonstigen elektrisch leitenden Werkstoffen oder Partikeln, ggf. mit Bindemitteln, oder durch Eisenverbindungen, z. 3. Eisenhydroxyd, das durch Faellung mit einem alkalischen Reagens abgeschieden wird und nach Trocknung und Waermeeinwirkung unter einer Vakuumduktion, CO-G; magnetisch gasfoermigen Re- und/oder uebergefuehrt wird, oder durch Bedampfen mit Eisenverbindungen, z. B. Eisenchlorid, oder dergl., ggf. danach in die Herstellungsform gebracht und dort belastungsfallabhaengig mit Hilfe elektrischer oder magnetischer Felder ausgerichtet und/oder an der Formwandung gehalten und zuletzt erwaermt und den genannten Impulsen oder Stosswellen ausgesetzt werden, ggf. die Verstaerkungsmaterialien aus nichtmetallischen Werkstoffen, z. B. aus Glas, elektrostatischen Kraefte, z. 3, durch Aufladung ihrer Oberflaeche mit elektrischen Teilchen durch Sprueh- elektroden, ausgesetzt werden. 6. Verfahren nach Anspruch 1 bis 5, dadurch gekennzeichnet, dass anstelle der oder zusaetzlich zu den Werkstoffen oder einem Teil dieser Werkstoffe, z. den Platten und/oder den natuerlichen und/oder synthetischen Polymeren oder Wichtpolymeren in genannter Form oder als Vorformling oder Halbpercent 9-zeug oder dergl. Baumaterialien, wie z. B. Sand, Kies, Gips oder auch Kalk-, Kreide- oder Zement- bzw. Betonmoer- tel, ggf. stahlbewehrt, in noch formbarer Form und/oder Spaene aus Holz und/oder Metall oder dergl. und/oder aufschaeunbare Materialien, z. 3. zur Erzeugung von Schaumton oder zur Erzeugung von Schaum, insbes. von Polyurethanschaum, oder forderliche Materialien als Formkoerper- und/oder Beschichtungswerkstoff oder Teil davon oder auch als Halbzeug

verwendet werden» 7» Verfahren nach Anspruch 1 bis 6, dadurch gekennzeichnet, dass die insbes» gleichmaessige Verteilung der riesel- bzw« • schuettfaehigen Werkstoffe auf. der Oberflaeche der Form., des Kernes oder des zu beschichtenden Koerpers durch den insbes* in mechanische Schwingungen versetzten, teilweise, insbes. vollstaendig gefuellten Pxeßbehälter durchgeführt wird. 8. Verfahren nach Anspruch 1 bis 7, dadurch gekennzeichnet, dass die Beschichtung der Oberflaeche des zu beschichtenden Koerpers, des Kerns und/oder der Herstellungsform mit den genannten riesel- bzw. schue11faehigen, ggf. erwaermtten Werk- stoffen durch uebertragung von Dewegungs- bzw. Transportenergie auf diese in Richtung des jeweiligen Oberflaeche- mentes durchgeführt wird. 9. Verfahren nach Anspruch 1 bis 8, dadurch gekennzeichnet, dass in den Pxeßbehälter ein durch Erwaermung vom festen in den fluessigen Aggregatzustand uebergefuertes bzw. fluessig gewordenes, einen niedrigen Schmelzpunkt aufweisendes Me- dium, z. B. Wismuth oder seine Legierungen, oder Hartwachs oder dergl. gefuellt und gleichzeitig zur Waermeuebertragung, Verdichtung und Formung verwendet wird. 10. Verfahren nach Anspruch 1 bis 9, dadurch gekennzeichnet, dass der Pxeßbehälter zuerst mit einem gasfoermigen Medium, z. B. Luft, aufgeblasen oder mit dem genannten Medium ge- fuellt wird und insbes. in der normalen Atmosphaere mit den Verstaerkungsmaterialien in erforderlicher Form beschichtet wird, z. B. durch Umwickeln mit faden-, traeng-, band- oder flaechenfoermigen oder dergl» Verstaerkungsmaterialien, auch kreuzweise oder _ie nach Erfordernis und/oder durch Be- y i it? Schichtung mit Kurzfasern und/oder Whiskers und/oder Vlie- sen, insbes. als Zwischenschichten und/oder durch Auf strei- fen von gewebten oder gestrikten oder dergl, hergestellten trockenen oder vorgehaerteten Verstaerkungsmaterialvorform- 11ngen oder Prepregs, und anschliessend ggf, unter geringer Druckerhoehung in die vorzugsweise bereits mit fluessigen oder teigfoermigen Bindemitteln (bei Prepregs bindemittels) dosiert gefuellte herstellungsform usw. gebracht wird, dort unter Aufrechterhaltung des Druckes bei Druckluftfuellung mit den genannten Medien im Austausch mit der Luft ge- fuellt und unter Vorpressdruck gesetzt und anschliessend die noch erforderlichen Verfahrensschritte durchgeführt werden. 11. Verfahren nach Anspruch 1 bis 10, dadurch gekennzeichnet, dass auf die Oberflaeche der Herstellungsform, des Kernes, des zu beschichtenden Formkoerpers und/oder des Pressbehalters als eine Aussen- und/oder eine Zwischenschicht mindestens eine Schicht aus magnetisch beeinflussbaren und/oder magnetischen Verstaerkungsmaterialien, z, 3, in Form einer metallbeschich- teten Glasfasermatte, und/oder aus den genannten Platten und/oder Elasten, z. 3. in Form einer metallbeschichteten Thermoplastschiebt oder _gaze, aufgebracht wird. 12. Verfahren nach Anspruch 1 bis 11, dadur* :OKO:UUJGIC ~1 dass der Formkoerper und/oder die Schicht aus mehrerer•Schich- ten, Platten und/oder Vorformlingen aus Thermoplasten, auch in Form von Gaze als Aussen- und/oder Zwischenschichten und aus Zwischenschichten aus genannten Verstaerkungsmaterialien, auch in Form von Matten, Geweben, Gewirken oder dergl., ggf. zuerst als Sandwich-Vorformling und danach als Formkoerper oder Beschichtung hergestellt wird. 13« Verfahren zur Herstellung und/oder Formung von Koerpern oder Beschichtungen aus ein- oder mehrschichtigen flaechenfoermi- r gen Gegenstaenden, ze B, Metallplatten, Blechen, Holzplatten oder dergl., ggf, mit Plastbeschichtung aus Thermo- und/oder Duroplasten und/oder Elasten, dadurch gekennzeichnet, dass ' diese Gegenstaende zuerst auf oder in die Form oder einen • Kern gebracht werden, danach ein mit einem unkompressiblen schuettfaehigen festen und/oder fluessigen Medium, insbes. einer Fluessigkeit, z, B, oel, teilweise gefuellt oder zu M- 191 129 fuellender., au einem flexiblen, insbes, dehnbaren, hoch- temperatur- und•mediumfesten und -dichten Material bestehen- der Iressbehälter auf die genannten.Gegenstaende gebracht wird, die Herstellungsform ggf» bis auf Entlueftungsoeffmmgen geschlossen und/oder verdeckelt wird, der Iressbehälter voll- staendig gefuellt und unter Druock gesetzt wird, dabei und/oeder danach dass Medium, der Iressbehälter und/oder die Herstellung» form und/oder der Kern ggf. erwaermt wird und mit mechani- schen Schwingungen zwischen Hull und 200 kHz und darueber ~- insbes ausgeuebt von aussen auf das Medium, insbes. die Fluessigkeit oder in dieser oder in der Iressbehälter- oder Formwandung erzeugt oder auf diese ausgeuebt -- regelbarer Frequenz und Amplitude beaufschlagt und dadurch geformt und/ oder miteinander verbunden werden, ggf» unter Zwischenschich- tung von Bindemitteln oder Klebstoffen. 14. Verfahren insbes. nach Anspruch 13, dadurch gekennzeichnet, dass vor der Verformung als Aussen- und/oder Zwischenschicht mindestens eine Schicht aus faserverstaerkten Platten und/oder Elasten, insbes. in flaechiger Form oder als Vorformling, z. B. insbes. bestehend aus glasfaserverstaerkten ungesaettigten Polyestern, Epoxidharzen oder mit Thiopiasten modifizierten' Epoxidharzen oder dergl», auf oder in die Form oder den Kern gebracht wird. 15. Verfahren zur Herstellung und zur Beschichtung von Formkoer- pern oder Hohlkoerpern, ggf. nach Anspruch 1 bis 14, dadurch gekennzeichnet, dass geeignete riesel- oder schuettfaehige, d. h. puJlver-, und/oder haecksel- und/oder schnitzel- und/oder flocken- und/oder granulatfoermige Werkstoffe,aus Thermo- und/ oder Duroplasten und/oder-Elasten vor der Verarbeitung zu Formkoerpern durch mindestens eine Erwaermung- und/oder Buet- tel- und/oder Wirbeisinterzone transportiert und dort, ggf. nach dem Erwaermen der Oberflaeche ueber den Erweichungspunkt, mit mlerwaermtten und/oder erwaermtten Verstaerkungsmaterialien in Form von-Kurzfasern, auch gewellt, oder Whiskers oder dergl., vorzugsweise waehrend ihres Transportes beschichtet werden oder umgekehrt, d. h., dass die V er Staerkungsmaterialien in genannter Form zuerst mit Thermo- und/oder Duroplasten und/oder Elasten, insbes. in genannter riesel- oder schuett- iy I 147 - faehiger Form,' ggf9 unter gleichzeitigem Auf spruehen oder Aufspritzen von insbes. haertbaren Bindemitteln beschichtet und anschliessend teilweise oder vollstaendig abgekuehlt und unmittelbar oder spaeter ; zu Formkoerperii oder Beschichtungen verarbeitet werden, ggf, die BeSchichtungen durch Schwere- felder (z0 B, Fliehkraft) oder insbes. magnetische Kraft- felder durchgeführt und/oder unterstuetzt wird. 16. Einrichtung zur Durchfuehrung des Verfahrens,- bestehend aus einer ein- oder mehrteilig ausgebildeten verschliessbaren Herstellungsform, einem Kern und/oder einem zu beschichten- den Formkoerper, auf deren bzw. dessen innere und/aeussere Oberflaeche die Werkstoffe und/oder Gegenstaende bring- und/ oder verteilbar sind, nach Anspruch 1 bis 15, dadurch ge- kennzeichnet, dass die ggf» bis auf Entlueftungsoeffnungen und/oder Saeugventile (13) verschlossene, insbes. mit Steu- er- und/oder Regelventilen (34) und Manometern (35) ausge- ruestete Herstellungsform (1) oder der Kern und/oder der zu beschichtende Formkoerper, die bzw, der die Werkstoffe und/ oder Gegenstaende (3;4) bereits, vorzugsweise auf der Ober- flaeche verteilt, enthaelt, einen Eohlraum aufweist, in dem ein flexibler offeier, mit einem unkompressiblon schuettfaehi- gen festen und/oder fluessigen Medium (6) -vorzugsweise hoeherer Wichte als die oder mindestens eine Komponente der Werkstoffe (3;4) - faellbarer Pressbehälter (5) angeordnet ist, der einerseits mit dem genannten Medium (6) gefuellt und vorzugsweise ueber zwischengeschaltete Ventile (7) und ' mindestens eine Hochdruck- bzw. Hydraulik- und/oder stoss- weise arbeitende, vorzugsweise in ihren Parametern Steuer- oder regelbare und umsteuerbare Druck- und/oder Saeugpumpe ; (9) kommunizierend mit mindestens einem Mediumvorratsbe- hälter (11) anschliessbar bzw. mit diesem verbunden ist und/ oder der andererseits mit mindestens einem mechanische. Schwingungen, vorzugsweise Stosswellen und/oder Druckimpulse und/oder Ultraschallschwingungen erzeugenden- und/oder aus- sendenden und - auf seine Wandung und/oder vorzugsweise sein. Medium (6) direkt oder ueber mindestens eine zwischenge- schaltete Mediumkammer oder Membran uebertragenden, vorzugs- weise an und/oder in der Wandung der Herstellungsform (1), dem Kern und/oder dem zu beschichtenden Koerper und/cder an - u - 11 \ m * oder in der kommunizierenden Druck- und/oder Saugleitung (8; 10) und/oder im Grossbehälter (5) selbst angeordneten, ; ggfo aus mindestens einem Elektrodenpaar bestehenden und elektrohydraulische Impulse erzeugenden und ueber tragenden Geber (14) in Wirkkontakt oder in Wirkverbindmig stellt, wobei der Geber (14) mit mindestens einem Schwingungs er- zeuger (26) mit Stossstroem- bzw. Impuls-generator (17), z. So bestehend aus Umformer, Gleichrichter, Entlader, Schal- ter, Energiespeicher bzw» Kondensator, ggf, Transformator, und einem Uetz bzw. einer Speisespannungsquelle (18), oder zo B, bestehend aus einem Schalter (20) z, B, in Form einer Halbleiterdiode, einem Programmkommutator bzw, einem Pro- gramms chaltwerk (21), einem Energiespeicher bzw. Kondensa- tor (22), einem Speiseteil (23), einem Schalter (24) und einem Heiz bzw, einer Speisespannungsquelle (25), in direk- tem Kontakt und/oder in Wirkverbindung steht. 17. Einrichtung zur Durchfuehrung des Verfahrens nach Anspruch 1 bis 16, dadurch gekennzeichnet, dass der mechanische Schwingungen uebertragende Geber (14) vorzugsweise im oberen Teil und die Einfuelloeffnung (30) des offenen Prossbshelters (5) im vorzugsweise unmittelbar darunter liegenden unteren Teil einer vorzugsweise der Dressbehältereinfuelloeffnung (33) und dem Geber (14) in Groesse und/oder Form mit Durchgangs- oeffnungen (39) fuer das Medium (6) angepassten, in der, vor- zugsweise im oberen Teil der Herstellungsform (1), des Ker- nes oder des zu beschichtenden Formkoerpers, insbes» in der entsprechenden Wandung oder im Deckel (12) befindlichen Aussparung (40) angeordnet sind, die Pressbehälteroeffnung (38) ze B, durch einen vorzugsweise in Einzelteile zerleg- baren Klemm- und/oder Spreizkoerper oder einen Spannring (41) in offenem Zustand gehalten und an die Formwandung gedruoeckt ist, der Geber (14) mit dem im Dressbehälter (5) befindli- chen und vorzugsweise unter ueberdruck stehenden Medium (6). direkt oder ueber eine vorzugsweise mit dem gleichen oder einem anderen fluessigen oder gas foermigen Medium ge- fuellten Zwischenmembran in Kontakt steht und mit mindestens einem gleichzeitig den Geber (14) bildenden oder am Geber (14) angeordneten Schwingungserzeuger (26) direkt oder ueber elektrische, pneumatische, hydraulische oder mechanische und durch die --Porniwandung usw, oder den Deckel (12) gas- dicht' gefuehrte Zwischenglieder. (15) mit dem elektrische, pneumatische, hydraulische, elektrohydraulische oder me- chanische Impulse und/oder Stosswellen und/oder Ultraschall- Schwingungen erzeugenden Schwingungserzeuger (26) verbun- den ist, dass zwischen Geberflaeche und Dorm- und/oder Dek-, kelwandung ein elastisch deformierbares, vorzugsweise der Geberflaeche in Groesse und Dorm* und der Schwingungsamplitude in der Dicke angepasstes Ele- ment (42), vorzugsweise der entsprechend gestaltete Rand oder die obere Wulst der oeffnung (38) des Pressbehalters (5) und in der Dorm- usw, oder Deokelwandung mindestens ein, auf verschiedene Druckgroessen einstellbares oder einen vor- gegebenen Druckverlauf steuerndes ueberdruckventil (34) und/

oder mindestens eine auf. einstellbaren ueberdruck.verschiess bare Entlueftungsoeffnung (43), weitere, an der jeweils hoech- sten Stelle der in der Dorm usw, befindlichen Werkstoffe und/oder Gegenstaende angeordnete Entlueftungsoeffnungen und eine mit einem Ventil verschliessbare Einfuelloeffnung (44) fuer das Medium (6) angeordnet sind und letztere kommunizi- rend ueber den Geber (14) mit der oeffnung (38) des Pressebe- haelters (5.) und/oder ueber eine ggf, stossweise arbeitende Pumpe (9) mit einem Mediumvorratsbehaelter (11) verbunden ist, ' • 18, Einrichtung zur Durchfuehrung des Verfahrens nach Anspruch. 1 bis 17, dadurch gekennzeichnet, dass der Geber (14) un- mittelbar mit einem Schwingungserzeuger (26) gekoppelt ist und/oder aus mindestens einer oder einer Anzahl an oder in der Haeh der Dorm-, Kern- und/oder zu beschichtenden Porm- korper- und/oder Dressbehaelterwandung angeordneten elektrischen Windungen, Spulen, Magnetinduktoren, Elektromagneten, Vibratoren und/oder Ultraschallgebern (29; 33) besteht, die ebenfalls mit mindestens einem Schwingungserzeuger (26) mit Stossstrom- bzw, Impulsgenerator (17) und dem Uetz bzw, der Speisespannungsquelle (18 bzw, 25) verbunden sind bzw, in Wirkverbindung stehen. «}* 35 - 191 129 190' Einrichtung zur Diihrchfuehrung des Verfahrens nach Anspruch 1 bis 13, dadurch gekennzeichnet, dass der Geber (14) ein magneto- oder elektrostrilctiver Schallgeber ist und aus ei- nem gekuehlten Schwingungswandler mit Zwischenstueck und So- notrode oder Sonode bzw. aus einem Ultraschallkopf, beste- hend aus Schallgeber, uebertrager, Schwingerhsilierung und kuehleinrichtung, erstellt ist und mit einem IQ2-Strom, dem ggf, zwecks Vormagnetisierung und Vermeidung von Hysterese- kuelusten ein Gleichstrom ueberlagert ist, gespeist wird. 20, Einrichtung zur Durchfuehrung des Verfahrens nach Anspruch 1 bis 19, dadurch gekennzeichnet, dass die uebertragung der Impulse auf das genannte. Medium (6) durch einen eine hin- und hergehende und auf das MMium (6) wirkende Bewegung ausuehenden Kolben und/oder einen auf das MEDIUM (6) wirkenden Vibrator, und/oder Ultraschallschwinger, insbes, einen • magneto- oder elektrostriktiven Schallgeber (14) erfolgt, wobei insbes, letztere durch einen HF-Generator (17) ge- speist werden. 21, Einrichtung zur Durchfuehrung des Verfahrens nach Anspruch 1 bis 20, dadurch gekennzeichnet, dass im Dressbehaelter (5) bzw, in seinen Medium (6) und/oder im Mediumvorratscehael- ter (11) und/oder in der Wandung der Herstellungsform usw. (1) und/oder des Pressbehaelters (5) Heizrohren- oder Heiz- schlaengensysteme (36) mit eingebrachten elektrischen Heiz-- leitern und/oder Heizkanalsysteme (37) zum Transport heisser Gase, Daempfe oder Flussigkeiten und/oder Kuehlmitteltrans- port eingebracht sind, die mit elektrischen Spannungsquellen £18) bzw, mit Border- oder Transporteinrichtungen, z, B, lumpen, verbunden sind. 22, Einrichtung zur Durchfuehrung des Verfahrens nach Anspruch 1 bis 21, dadurch gekennzeichnet, dass der Pressbehaelter. (5) ein-, vorzugsweise mehrschichtig aufgebaut ist und aus hoch- temperaturfesten flexiblen, vorzugsweise stark dehnbaren, gegenueber den Eormkoerperwerkstueffen (354) und Buellmedien (6) chemisch resistenten mediumdichten Platten und/oder Elasten, 55. B. aus Polyvinylalkohol, Ueopren, Silikonkautschuk und/ oder aus mit metallischen und/oder nichtmetallischen', ggf. mit magnetischen, oder ferromagnetischen und/oder mag- netisch beeinflussbaren und/oder -elektrisch leitenden Materialien und/oder Partikeln - wie z. 3, aus Metall, Kohlenstoff, Graphit oder dergl. - gefuellten und/oder beschichteten Platten und/oder Elasten und/oder aus ggf», mit den vorgenannten Materialien und/oder Partikeln be- schichteten und/oder aus diesen und/oder aus Borr Asbest, Basalt, Glimmer, Glas oder auch in Kombination bestehen- den Geweben, Gewirken, Fliesen oder dergl, besteht, die ggf. mit hochtemperaturfesten Polymeren, z. E. Polyph- nylensulfid impraegniert und/oder beschichtet sind, ggf» der elektrisch und/oder magnetisch leitfaehige Pressbehaelter.,. (5) mit elektrischen Kontakten versehen und ueber diese und vorzugsweise einen Transformator mit einer.Speise- spannungsquelle (18) zu Heizzwecken verbunden und/oder durch Induktion mit Hilfe von durch einen Generator (17) mit Wechselstrom hoher Frequenz durchflossenen und in der ITaeh des Pressbehaelters (5) angeordneter Spulen (33) er- waermbar ist. . Einrichtung nach Anspruch 1 bis 22, dadurch gekenn- zeichnet, dass der Pressbehaelter (5) ein-oder beidseitig mit flaechenfoermigen, insbes, flexiblen, z. 3. aus elek- trisch leitfaehigen Metall- oder Graphit oder dergl. be- schichteten Glasfasern oder Geweben oder dergl. bestehenden und mit Stromkontakten versehenen Heizelementen oder mit Metallenes. Metallpartikeln beschichtet ist und/oder dass der Pressbehaelter (5) aus genannten Geweben, Gewirken, Vliesen oder dergl. besteht und mit Thioplasten impraegniert ist und/oder aus Thioplasten besteht, vorzugsweise aus solchen, die durch Halogenide mit stark verlaengerter,ge- saettigter Kohlenwasserstoffkette, z. B-. mit C-J2H24"1"2 0(3-er durch Isomere dergleichen Bruttozusammensetzung mit ein oder zwei aethylenseitengruppen erhalten werden und die bis min- ' «Q destens 250 0 temperaturstabil sind« 24» Einrichtung nach Anspruch 1 bis 23, dadurch gekennzeichnet, dass der Pressbehaelter (5) aus einem mit dem Formkoerper-imd/ oder Beschichtungswerkstoff (3j 4) chemisch und/oder physi- kalisch verbindbarem Material, beispielsweise aus PVC oder 3>-, 191 129 oder aus Thiopliste bestellt und nach der Herstellung als sogenannter verlorener Kern oder Schicht als eine Ober- flaeche am erzeugten Fornkoerper (31) oder der Schicht vor- •bleibt 25o Einrichtung nach Anspruch 1 bis 24, dadurch gekennzeichnet, dass der Pressbehaelter (5) fuer die Herstellung von Hohlpro- filen, Roehren oder dergl, auch unterschiedlicher Durchmes- ser oder Querschnittsabmessungen aus einem dieser form an- gepassten langem Sack oder Schlauch besteht. 26. Einrichtung nach Anspruch 1 bis 25, dadurch gekennzeichnet, dass anstelle der oder zusaetlich zu den Entlueftungsoff- nungen (13) ein steifer gegenueber dem Pressdruck stabiler perforierter Entluefungsraum in der Form oder im Kern oder dergl. angeordnet ist und/oder dass" ein in die Form (1) gebrachter, ggf. der Formkontur angepasster, s. B. in Form eines hohlen Ringes (bei der Herstellung von runden Form- koerpern) gestalteter, die in den Werkstoffen (3; 4) befind- liche und waehrend der Herstellung ausgepresste Luft (Luft-, Dampf- oder Gasblaeschen oder Eunleer) aufnehmender Entluef- tungskoerper zur Entlueftung vorgesehen ist. 27. Einrichtung nach Anspruch 1 bis 26, dadurch gekennzeichnet, dass die Beschichtung, der genannten Oberflaeche mit den schuettfaehigen Werkstoffen (4) durch Sprueh-, Spritz- oder Schleudereinrichtungen, beispielsweise.Pressluftduesen erfolgt, die ggf. in der Baehe der Duesenoeffnung in Richtung zum Duesen- ausgang mit einer Heissgasstrahlduese ausgeruestet sind* 28. Einrichtung nach Anspruch 1 bis 27, dadurch gekennzeichnet, dass das Material der Herstellungsform je nach Anwendungs- zweck ein magnetisch beeinflussbares oder magnetisch unbe- einflussbares Material, z. B. ein faserverstaerkter Kunst- stoff, Aluminium oder auch Stahl oder dergl. ist, ggf. mit Hinterfuetterung aus Baumaterialien, insbes. aus armierten Beton besteho 38... 191 129 29,, Einrichtung nach Anspruch 1 bis.28, dadurch gekennzeichnet,' dass auf der freien Oberflaeche der auf oder in der Herstel- lungsform usw* befindlichen Werkstoffe und/oder Gegenstaende.eine vorzugsweise in Form und Groesse dem Pressbehaelter entsprechende Schicht aus den genannten oder anderen Press- behaeltermaterialien erzeugt, z» B0 aufgespritzt oder auf- gebracht ist und den Pressbehaelter ersetzt» 30, Pormkoerper oder Schicht, dadurch gekennzeichnet, dass dieser oder diese ein aus faserverstaerkten und mit Ihioplasten modifizierten Epoxidharzen mit und/oder ohne Haerter und/ oder Beschleuniger und/oder Sensibilisatoren bestehender, durch Einwirkung mechanischer und/oder TJltraschallschwin- gungen, im Bereich zwischen Bull und 200 kHz und darueber verdichteter und/oder von Waerme und/oder Druck geformter, ggf, durch elektromagnetische Wellen, vorzugsweise im 1R- oder TJV-Bereich oder energiereiche. Strahlen oder durch Magnetfelder beeinflusster, gehaerteter bzw. polymerisierter Gegenstand ist*. Hierzu /j Seite Zeichnung. **Machine translation:** [Source: claim 1] ¥ P B-\$2 d / 191 129 invention entitled: 1 processes for the production of goods ' from faserver-strengthened materials, in particular from layers or supervisory tragsschichten from £ a server tuerkten plastics and on their materials of even of different chemical context composition and/or density, where the 11 materials in the required composition, form, quantity and unit of time the various stages of manufacture and before - directions led to and there or, processes where with hardener, accelerator, and/or Akti - vatoren or sensitizers or Thixotropiermitteln or similar mixed materials and/or the ski nights on stationary or moving or transporting or machined surfaces of materials, cores, or manufacturing position form or be brought into this and the forming and/or soaking and wetting, especially of reinforcement materials with the preferably from unsuitable saturated polyesters or epoxy resin existing binders and their bubble-free compression and direction through this kinetic energy is periodically transferred preferably performed in form of mechanical vibrations, with simultaneous or subsequent forming or strengthening, preferably by power, particularly through appropriate electromagnetic waves, and in which the mechanical vibrations transmitted by elastically deformable thin layers on the materials, in particular for the production of replace Shen or UltraschallSchwingungen and an air bubble-free intimate bond in the materials, in and / or between the layers and the orientation of the tools sreeja fkomponenten in plastic, after Pafouf 43 percent * 4) t marked by the fact that depressurized an open preferably lockable single or multipart trained, put or already- warmed manufacture form a core or a schichtender to form body with cold or warmed riesel-or bulk-capable, such as powder, and/or haecksel - and / o de granu, schnitzel - and/or flocken-and/or needle - lat - or dough-shaped and / . or liquid, if necessary-cure Office and/or suitable thermoplastics or such hot-melt adhesive or elastomers, such as in the still unvemetzten State as a monomer (E.g. through direct polymerisation of Kaprolaktam polyamide or vulcanization of natural rubber or Buna (itohgummi) to elastic vulcanizates or the like in situ), strengthening Mare Memorial go, preferably but mixed with particularly corrugated Verstaerkungsmaterialcurzfasera and / or "whiskers or already with the Verstaerkungsmateri- alien related and/or self bonding plastics referred to or elastomers dosed filled or that a part or the entire internal and/or external put or heated surface of the mentioned form of production or the core or form body to be coated with called the riesel - or bulk-capable or shaped dough strengthening mate rialosen or reinforced these tools 191 129 or preforms, and/or semi-finished products from the materials or layers or plates w-men / ten Office thermoplastics and/or elastomers and / or the Polymerien and/or weight polymers and/or significant later materials, z, B0 metal where the respective ¦ application purpose or load of required series follow evenly or depending on the load case of different thickness coated and then with smaller stens a serve as core or counter form and with at least a unkompressiblen bulk-enabled fixed and / or liquid, if necessary "magnetically impressionable or mag-electromagnetic insbeso ferromagnetic, multiple unverbrauch-bar usable

medium of equipped higher specific gravity than the mentioned riesel-or" bulk-capable or liquid Werkstoffe-for the respective production to filling high-strength, from flexible temperature and across the called materials chemically stable and resistant, preferably in the volume vergrößerbarem, in shape and size customizable open or be lockable press container covered the to be created or to be coated Formkoepfer or the corresponding cavity and will be charged ", right after the production form and/or the core and/or the form body to be coated or Rehaelter partially or completely with a lid or one, if necessary, the Pressbe-liquids shaping Counterform, Ric" referred to on Entlueftungsoeffnung-gen locked 1 and the pressure tank with the, If necessary, filled already heated medium and the medium and the pressure container under constant, however the size of control - adjustable starting pressure is used or pre-tensioned and before, while or after the forth - position form, etc., and/or his or her surface, the medium or the pressure tank in mechanically or hydraulically - or electro hydraulic or magnetic or dergl, created and in frequency, amplitude and active time control or controllable, if necessary z, B, from bottom to top using a vibration or hiking field conveyor, by created on the medium of outside experienced and/or in the medium, on the materials and/or layers nacheinan-. the Teildruecke in the form of printing, in particular, exerted to completed wetting, compression and shaping. at 19t 129 in particular. Flüssigkeitsdruckimpulsen or **shock waves** or ultra solos all vibrations (in particular. 1 el power s sound) and/or through directly or through an intermediate layer or Kaerner to the fluid-coupled vibrational or Ultraschallueber - trager in simultaneous or, further warming by form, core or the like surface and/or press container wall or of the medium in particular. under simultaneous printer booster up to the press - or deformation pressure plastifi-zier - or erweichbaren materials or objects causes identified or softens and/or warms the liquid materials, and it shaped the educated classes to form bodies, hollow bodies and containers or coatings, vented and compressed and partially or completely polymerized and solidified or be hardened, then betaend the medium, replaced by cold medium and then from the pre beta container transported; or pumped and the press box from or from the cooled if necessary shape, | the countries or the /. coated form body or container is taken away after corresponding opening of the form, etc., 2. process according to claim 1, characterised in that the on or in the form, the core or the coating form body fitted • polymerizable materials, insues. Binders, such as unsaturated polyester first partially offset by short-term temporary exposure to mechanical, in particular. by UltraschallSchwingungen through exploitation, of the thixotropic and/or of the Ultraschalldepolymerisationseffek - tes in its viscosity reduced or uninstal polymerized. be and while or after through targeted exposure to currency pressure generated by the referred vibration as a result of the associated ultrasonic capillary effect in a matter of seconds in the capillaries and capillary columns of form, etc. installed on or in the making - reinforcing materials are pressed and thereby reinforcing materials intimately and completely wet and while or after that, networks reinforcing materials in this way or Preserved laminates by pressure acting on its surface and/or significant further mechanical or ultrasonic vibrations and/or a>-191 129 **shock** compressed pulses, while of the ver strengthening sinateri-alien the excess resin or Binder is removed and under the influence of heat, and on the right erhaltung of the pressure there or then - at least maintained until the Gelation of binder - «, the vibration of sb ehandlung interrupted and solidified materials or polymerized or cured 3, process according to claims 1 and 2 are marked this way, that on the medium, in particular» liquid exerted pressure first up to the dress at first pressure is increased and there - after under another continuous or dense - and/or thick layer or load case dependent pressure increase on the bursting pressure of production form the ««, the final layer thickness of materials or» materials and / or items of corresponding Iressenddruck is installed and before or at the same time pressed by this or at least a different vibration transformer on the media, in particular» on the fluid called Druckinpul-se or **shock waves** and/or TJltraschallimpulsc - such removal practiced and in the course of their pressure or, in their. Effect, controls, that the impulses or "«Big impulses from the start (resonance frequency) in the direction of zun end pressure, reduce and if necessary amplitude-dependent pre-train way also reduced the pulse frequency, Ric, is increased, according to which the pressure and/or the stimulation effect either maintain a definable te time and / oder.kontinuierlich or -rupt is reduced down to normal pressure, 4» procedure" according to claim 1 to 3, characterised by the fact that the inner or outer surface of production form, of the nucleus or to be coated form of body-to-first in the fiber/resin spraying or up or insertion of dry reinforcing materials reinforcing material preform or pouring the liquid Binder, in particular. «by unsaturated lolyester - or epoxy resins and/or modified resins z 3» with liquid or flowable Thiolplasten modified epoxy resins or aufschaeumbaren, z, B Ed, materials aufschaeumbaren by heat and/or vorpolymeri-(and *1 * M TZ? ized, in particular riesel - or bulk-capable or surface-shaped fiber reinforced materials, s, • UC prepregs, stratifies and will be then, ggfa after applying another called layers or objects of press tank up brought and the further procedural steps performed), curing bzw0 curing particular, by experience warming of the medium and/or assign temperature through a high BWR liquid such as E. 01, will be performed. "" 5, process according to claims 1 to 4, characterized that the mentioned materials or objects in their original form before their coating and/or after its loading stratification and their processing for molded articles or coatings first electrically or magnetically afford continued be made, z "B. by Beschichten1 with magnetic and/or electrically conductive or impressionable materials, z" B. thanks to spray from materials magnetic or magneti-sierbaren or other electrically conductive materials or particles, if necessary with binders, or by iron compounds, e.g. 3 iron hydroxide, which is deposited by precipitation with an alkaline reagent and after drying and heat under a duktionsmittel, CO G. magnet i' gaseous re and / ue.dor i: j_ - sen is uebergefuehrt, or by steaming with iron connection applications, such as ferric chloride, or etc, if necessary then.The production form installed and demy there depending on load case using electric or magnetic fields - tet or rectified and/or kept in the wall of form of ten and last heated and are exposed to the mentioned pulses or **shock waves**, possibly the Verstaerkungsmateri-alien made of non-metallic materials, such as from glass, electrostatic forces, e.g. 3, **electrodes**, are exposed by charging their surface with electrical particles by spray. 6 process according to claims 1 to 5, characterised in that instead of or in addition to the materials or any part of these materials, z, the plastic and/or the natural or synthetic polymers or weight stuff polymeren.in of called form or as a preform or half - percent 9 or dergl» construction materials, such as e.g. be sand, gravel, plaster or also lime, chalk - or cement - or Betonmoer - tel «««, if necessary stahTbewehrt in still, malleable form or shavings of wood and/or metal or the like due to the schaeunbare materials, e.g. 3 for the production of Schaumbe-ton or for the production of foam, in particular» of polyurethane foam, or case materials as a body of form of and/or coating material or part thereof or as half - stuff used» 7» process according to claim 1 to 6 «, characterised by the fact that the particular» uniform distribution of riesel-or «• bulk-capable materials on.» the surface of the form. of kernel or of the body to be coated by the particular * offset into mechanical vibrations, in part, in particular. is carried out fully filled Pxessbehaelter. 8 process according to claims 1 to 7, characterised in that the coating the surface of the body to be coated, the core or the production form with the riesel-or schue11faehigen, possibly heated tools mentes conducted materials by transmission of Dewegungs-or Transportener energy on them in the direction of the respective Oberflaecheenele-. 9, process according to claims 1 to 8, characterised in the Pxessbehaelter pressed a media shows uebergefuehrtes or liquid become one, a low melting by heating from the solid to the liquid state, such as bismuth or its alloys or hard waxes or the like filled and used simultaneously for heat transfer, compression and shaping. 10 process according to claims 1 to 9, characterised in that the Pxessbehaelter first with a gaseous medium, e.g. Bo Luft, blown up or with the mentioned media-fills is and in particular. in the normal atmosphere with the. «Coated reinforcement materials in the required form, E.g. by wrapping with faden-straeng -, tape - or shaped surfaces or dergl» reinforcing materials, also criss-cross or _ie as appropriate and/or by be - y i it? Layering with short fibres or whiskers or Ripon - sen, in particular. as intermediate layers and/or by strei - fen of woven or gestrikten or dergl, manufactured dry or pre hardened reinforcement material preform 11ngen or prepregs, and then formed, under low pressure increase in the preferably already with liquid or dough shaped binders (for pre-preg bindemittelbs) dispenses filled production form, etc. is placed there while maintaining the pressure at compressed air fill the mentioned media in Exchange with the air filled with and pressurized before press set and then the required procedural steps be performed. 11, process according to claims 1 to 10, characterized, that on the surface of the production form, core, the form body to be coated and/or press container as a foreign or an intermediate layer at least one layer of magnetically impressionable and/or magnetic reinforcement materials, z, 3, in the form of a metallbeschich-secondary fiber mat, or from the mentioned plastic and/or body, including 3 in the form of a metal-coated Thermoplastschiebt or-gaze, will be applied. 12 Verfahren.nach dadur claims 1 to 11, *:OKO: UJJGIC ~'1 that the form body and/or the layer of several • shifts ten, plates or preforms made of thermoplastics in the form of gauze as foreign and/or intermediate layers and layers from above VerStaerkungsmaterialien, also in the form of mats, fabrics, knitted or dergl, first as the sandwich preform and then as a body of form of or coating is made. 13 «procedure to manufacture or shaping of bodies or coatings from single - or multilayer flaechenfoermi-r gen objects, ze B"metal plates, sheet metal, wood panels or dergl, ggf with plastic coating of thermosets, Thermo - and/or body, characterised by the fact that ' these items first or in the form or a • core be brought, then one with a unkompressiblen bulk-capable solid or liquid medium»., in particular. oil, fluid, z, B, partially filled or m 191 129 filling. AU a flexible, in particular, high-tensile, high-temperature and • medium strength and leak material - the Iressbehaelter on the above. «Objects is placed, production form Ric» ver confined and/or closed on Entlueftungsoeffmmgen, the Iressbehaelter fully constantly filled and press is placed here and/or after that medium, the Iressbehaelter and/or the production» form and/or the core is heated if required and with innovative political oscillations between hull and 200 kHz and beyond ~ in particular exerted from outside on the medium, in particular. «the liquid or generated in this or the Iressbehaelter - form wall or exercised on them - adjustable frequency and amplitude multiplied and thus shaped and / or are connected to each other, Ric» under Zwischenschich-management of binders or adhesives. 14 procedures in particular.

According to claim 13, characterised by the fact that before the deformation as foreign and/or intermediate layer at least one layer of fibre-reinforced plastics and/or body, in particular. in-form or as a preform, such as in particular. «consisting of glass fibre reinforced unsaturated polyesters, epoxy resins or with Thiopiasten modified ' epoxy resins or dergl», or in the form or the core is placed. 15 process to manufacture and coating of Formkoer-pern or hollow, if necessary according to claim 1 to 14, characterised in that appropriate riesel - or free-flowing, i.e. puJLver, or haecksel - or schnitzel - flock - and/or granulated materials, from thermal and / or thermosets tel - and/or body before processing to form bodies by a heating and/or Buet - at least or transported Wirbeisinterzone and there, if necessary after warming the surface above the softening point, with mierwaermten and/or warmed reinforcing materials in the form of short fibers, also wavy or whiskers or dergl, preferably while their transport are coated or vice versa, that is, that the V he strengthening materials known as first with Thermo - and/or thermosets or body, in particular. in the so-called riesel - or schuett-iy I 147 - enabled form,' ggf9 under simultaneous to spray or injection of particular. Binders curable coated and then partially or completely cooled and processed immediately or later ; Formkoerperii or coatings, Daryl, the coatings by Schwere-fields (z0 B"centrifugal force) or in particular. magnetic force fields is carried out or supported. «16 device for implementing the procedure, - production form lockable consisting of a single or multipart trained, a core or one to beschichten-the form body, on which or whose internal and/external surface materials and/or items bring-and / or are distributable according to claim 1 to 15, as a result, indicates that the ggf» locked up on vents and/or lactation valves (13), in particular. with tax, and/or -production form (1) or the core and/or the form body to be coated, equipped (34) control valves and pressure gauges (35) the or, the materials and / or items (3, 4) already, preferably on the upper surface distributed, contains, is an Eohlraum, in which a flexible offerier, faellbarer with a unkonpressiblon schuettfaehi-gen solid or liquid medium (6) equipped higher specific gravity than that or at least a component of materials (3, 4) - press tank (5) is arranged, which on the one hand filled with the mentioned medium (6) and preferably via intermediary valves (7) and ' at least a high-pressure hydraulic or **shock** way employees, preferably in its parameters control or controllable and reversible pressure - and/or lactation pump ; (9) communicating with at least a Mediumvorratsbe-of liquids (11) can be connected or associated with this is and / or on the other hand with at least one mechanical. Erzeugenden - or -send ultrasonic vibrations, vibrations, preferably **shock waves** and/or pressure pulses and be on his side or preferably. Medium (6) directly or through one or more zwischenge-media Chamber or membrane turned on quality wise-transmitting, and/or in the wall of the production form (1), the core or the body to be coated and / COF - u - 11 \ WM * or in communicating pressure or suction pipe (8, 10) or in the large container (5) himself arranged, ; ggf9 from at least an existing pair of **electrodes** and electro-hydraulic impulse generating and provides load-bearing unit (14) in active contact or Wirkverbindmig, where the donor (14) with at least one vibrational he - producers (26) with Stossstroem - or pulse generator (17), z. «So consisting of converters, Rectifier, unloaders, Scarfs - ter, Energiespeieher or» capacitor, ggf, transformer, and a Uetz and a supply voltage source (18), or zo B, consisting of a switch (20) z, B, in form of a semiconductor diode, the commutator of a program or a pro - gram chaltwerk (21), an energy storage or capacitor - gate (22), a dining section (23), a switch (24) and a smear or a supply voltage source (25) that stands in direct system contact or connection. 17. Institution for the implementation of the process according to claim 1 to 16, characterised by the fact that the transmitting mechanical vibrations sensor (14) preferably in the upper part and the filling aperture (30) of the open Prossbsshelters (5) in the preferably immediately below this lower part one preferably the dress tank filling hole (33) and the timer (14) in size and/or shape with through holes (39) for the medium (6) adapted «, in the forward train in the upper part of the form of production (1), the Kerberos server and time nes or the substrate shape body, in particular "in the appropriate wall or into the cover (12) the recess (40) are arranged, the press opening (38) ze B, held by a preferably in items zerleg-baren clamping and/or spreader body or a clamping ring (41) in an open State and is pressed in the wall of form of, the timer (14) with the chen befindli-in the dress reservoir (5) and preferably under overpressure-standing medium (6). directly or through a preferably with the same or a different liquid or gas-shaped medium intermediate membrane filled in contact is and with at least one at the same time the donor (14) fine or ordered on the cylinder (14) vibration generators (26) directly or through electrical, pneumatic, hydraulic or mechanical and by the Porniwandung, etc, or the cover (12) gas tight "guided Pontics. (15) with the electrical, pneumatic, hydraulische, electro-hydraulic or mechanical **separating** impulse or **shock waves** or ultrasonic vibrations vibration generator of (26). the is, that between donor area and dorm -, or Dek, kelwandung an elastically deformable, preferably the donor area in size and dorm * and the vibration amplitude in the thickness customized elements ment (42), preferably according to designed edge or the top bead of the opening (38) of the pressure tank (5) and in the dorm - etc., or Deokelwandung at least, on sizes of pressure equipment adjustable or pre-specified pressure gradient pressure relief valve (34) and / or one or more. adjustable ueberdruck.verschliess bare vent (43), more on the each hoch-sten point in the dorm, etc, the materials and/or items arranged air vents and a lockable with a valve filler (44) for the medium (6) arranged and latter konnunizi-while the unit (14) with the opening (38) of the Pressbe-haelters (5) and/or associated observe any, fits and starts working with a pump (9) a medium tank (11), ' • 18, device for implementing the procedure of claim. 1 to 17, characterised in that the timer (14) UN-indirectly is coupled with a vibration generator (26) or consists of at least one or a number of, or in the height of dorm-, nuclear and/or electrical electronic coils arranged to coating Porm - body.und or Dressbehaelterwandimg, coils, magnetic inductors, electromagnets, vibrators or ultrasonic transmitters (29, 33), also with at least a vibration generator (26) with surge current or, Pulse generator (17) and the Uetz respectively, the excitation source (18 / 25) associated or in connection. «! * 35-191 129 190' facility to the Diirchfuehrunh of the process according to claim 1 to 13, characterised by the fact that the giver (14) is a magneto - or elektrostriltctiver sound and from a cooled vibration converters with spacer and so - notrode or Sonode or from a transducer, existing as of sound generators, transformers, Schwingerhslterung and cooling device is created and with an IQ?-power, which formed in order to bias and avoidance of hysteresis losses a DC current is overlaid», will be fed. 20, set up to carry out the process of claim 1 to 19, characterized, that the transfer of the impetus on the called. Medium (6) by a piston that is carrying out an and previous motion acting on the MMium (6) or that on the MEDIUM (6) work-the vibrator, or ultrasonic oscillator, in particular, a • magneto - or elektrostriktiven sound (14) is - in particular, the latter by a RF generator (17) feeds are. 21, set up to carry out the process of claim 1 to 20, characterized that in the dress reservoir (5) or, in its medium (6) in the Mediumvorratscehael - ter (11) and/or in the wall of the production form, etc. (1) and/or the press tank (5) heat - or heating. schlaengensysteme (36) with introduced electric heating conductors or heating duct system (37) for transporting hot gases, vapours or liquids and/or coolant TRANS port brought are with electrical power sources £18) respectively, with border or transport facilities, z, B, slouch, are connected. 22, set up to carry out the process of claim 1 to 21, characterized, that the press container. (5) input, preferably multilayered is built and high-temperature-resistant medium dense plastics flexible, preferably highly stretchable, chemically resistant to the Eormkoerperwerkstueffen (354) and Buellmedien (6) and/or body, 55. B. from polyvinyl alcohol, Ueopren, silicone rubber and / or with metallic or non-metallic ', if necessary with magnetic, or ferromagnetic or mag-Cally impressionable or-elektrisch conductive materials or particles - such as 3 «, metal, carbon, graphite, or like - filled or coated plates and/or body and/or from ggf», loaded with the aforementioned materials or particles coated or from these or from borr basalt, mica, asbestos, glass or in combination existing the fabrics, fabrics, tile or dergl is, if necessary impregnated with hochtemperaturfesten polymers, such as E. Polyphe-nylensulfid and/or are coated «, Ric» the electrically or magnetically conductive pressing containers... (5) with electrical contacts provided and about this, and preferably one transformer with one. Speise-voltage source (18) for heating purposes connected or by induction using flows through through a high frequency alternating current generator (17) and in the ITaehe of the pressure container (5) arranged reel (33), waermbar is.. Device according to claim 1 to 22, this out-migration records, that the press tank (5) on - or on both sides with shaped surfaces, in particular, flexible, e.g. 3 from electrical trisch 1eitfaehigen metal or graphite or the like, coated glass fibers or fabrics or existing so and with power contacts heating elements or with Metallenstes. Metal particles is coated or that the press tank (5) out of these fabrics, knitted, Webs or etc. and is impregnated with Thiopiasten or Thiopiasten consists of, preferably from those by halides with greatly extended, tagged - saettigter **hydrocarbon** chain, such as b. C] 2 H 24 'I' 2 from one with the form body imd / or coating material (3y 4) chemical and/or physical kalisch combinable material, for example, made of PVC or 3>->), 191 129 or ordered from Thiopliiste and after the production as so-called lost core or an upper layer • area establishment 25o at the generated Fornkoerper (31), or the layer forward bleibto according to claim 1 to 24, characterized that of Pressbehaeltor (5) for the production of Hohlpro-file, form ser or Querschnittsabmessungen from one of these on custom long bag pipes or dergl, also of different diameters or hose is. "26 device according to claim 1 to 25, characterised by the fact that instead of or in addition to the Entlueftungsoff-voltages (13) a stiffer compared to the pressure of more stable perforated Entlueftungsraum in the form of or arranged in the core or the like is or that" a mounted in the form of (1), if the shape outline adapted, s. B. in shape of a hollow ring (in the production of round shape bodies) applications, the large monthly in the materials (3, 4) and squeezed out during manufacturing air (air, steam or gas bubbles or Eunleer) Entluef-increased to constitutional is provided for ventilation. 27 device according to claim 1 to 26, characterised by the fact that the coating, called surface (4) bulk-capable materials by spray, injection molding and casting facilities, for example. Compressed air jets takes place, which may Baehe the nozzle opening in the towards the nozzle output with a hot gas nozzle are equipped * 28 device according to claim 1 to 27, characterised by the fact that the material in the form of production depending on the application purpose a that be influenced magnetically or magnetic-influence cash material, such as a fibre-reinforced plastic fabric, aluminum or steel or so might be to feed the rear of building

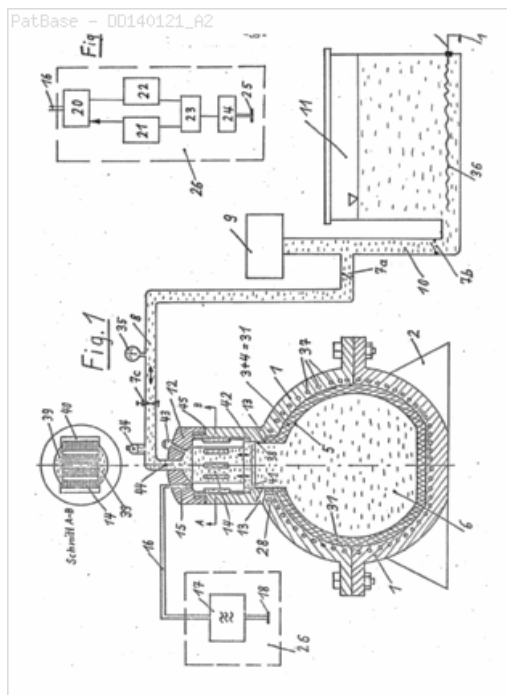
materials, in particular. reinforced concrete besteht 38-... «191 129 29 "device according to claim 1 up. 28, characterized by ' that on the free surface of on or in the manufacturer - lungsform, etc * the materials and/or Gegenstaende.eine preferably in form and size corresponding to the press container layer from the referred or other press produces container materials, z» B0 is sprayed on or brought up, and the pressure tank replaced» 30, Pormkoerper or layer, characterized by, that this or this one from fibre-reinforced and modified with Ihioplasten epoxy resins with or without hardener and / or accelerator and/or sensitizers existing, by exposure to mechanical and/or TJItraschallschwin - conditions, in the area between Bull and 200 kHz, in compacted or by heat and/or pressure molded, formed by electromagnetic waves, preferably in the 1R- or range of TJV or high-energy. Broadcasting or by magnetic fields is biased, hardened, or polymerized subject *. To do this, / j page drawing.

Classifications:

International (IPC 8-9): B32B27/04 (Advanced/Non-invention);

B32B27/04 (Core/Non-invention)

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JUNGE KARL H

Assignee(s): (std):

JUNGE KARL H

Assignee(s):

JUNGE KARL H DD

Inventor(s): (std):

JUNGE KARL H

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JUNGE KARL H DD

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Title: SUBSTITUTED 2-(CHROMAN-6-YLOXYL)-THIAZOLES AND THEIR USE AS PHARMACEUTICALS

Abstract: The present invention relates to substituted 2-(chroman-6-yloxy)-thiazoles of the formula I, in which Ar, R2, R3 and R4 are as defined in the claims. The compounds of the formula I are inhibitors of the sodium-calcium exchanger (NCX), especially of the sodium-calcium exchanger of subtype 1 (NCX1), and are suitable for the treatment of diverse disorders in which intracellular calcium homeostasis is disturbed, such as arrhythmias, heart failure and stroke. The invention furthermore relates to processes for the preparation of the compounds of the formula I, their use as pharmaceuticals, and pharmaceutical compositions comprising them.

Classifications:

International (IPC 8-9): A61K A61K31/353 A61K31/4155

A61K31/422 A61K31/427 A61K31/428 A61K31/429 A61K31/437

A61K31/438 A61K31/4439 A61K31/444 A61K31/454 A61K31/4545

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A61P25/28 A61P43/00 A61P9/00 A61P9/04 A61P9/06 A61P9/10

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C07D417/14 C07D471/04 C07D471/10 C07D487/04 C07D487/08 C07D513/04 C07F9/40 C07F9/6553 C07F9/6558

C07F9/6561 (Advanced/Invention);

A61P9/04 A61P9/06 A61P9/10 (Advanced/Non-invention);

A61K31/00 A61P9/00 C07D417/00 C07D471/00 C07D487/00 (Core/Invention);

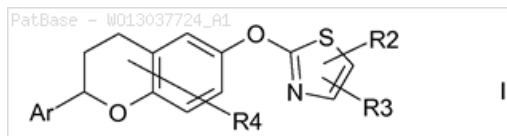
A61K A61P C07D (Subclass/Invention)

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DE602012016324 D1	20160512	DE201260016324T	20120910
DK2567958 T3	20150202	DK20110306128T	20110912
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PE11212014 A1	20140915	PE20140000332	20120910
PE20141121 A1	20140915	PE20140000332	20120910
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RS54851 B1	20161031	RS20160000442	20120910
SI2567958 T1	20150130	SI20110030350T	20110912
SI2755970 T1	20160729	SI20120030609	20120910
TN2014000106 A1	20150701	TN20140000106	20140311
TW201326161 A	20130701	TW20120133072	20120911
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UA114407 C2	20170612	UA20140003780	20120910
US2014243292 AA	20140828	US20140204220	20140311
UY34320 A1	20130430	UY20120034320	20120912
VN20602 A1	20190325	VN20140001171	20140411
WO13037724 A1	20130321	WO2012EP67622	20120910

Priority:

EP20110306128 20110912 EP20120756214 20120910 WO2012EP67622 20120910

Probable Assignee: SANOFI SA

Assignee(s): (std): SANOFI SA ; MCCORT GARY ; RACKELMANN NILS ; WESTON JOHN ; PODESCHWA MICHAEL ; WIRTH KLAUS ; RITZELER OLAF ; ARNDT PETRA ; BELLEVERGUE PATRICE ; CZECHTIZKY WERNGARD ; GOGEELEIN HEINZ ; KRAFT VOLKER

Assignee(s): SANOFI ; SANOFI BIOTECHNOLOGY LLC

Inventor(s): (std): ARNDT PETRA ; MCCORT GARY ; RACKELMANN NILS ; WIRTH KLAUS ; PODESCHWA MICHAEL ; RITZELER OLAF ; WESTON JOHN ; KRAFT VOLKER ; CZECHTIZKY WERNGARD ; BELLEVERGUE PATRICE ; GOGEELEIN HEINZ ; PODESCHWA DR MICHAEL ; GOGEELEIN PROF DR HEINZ ; WIRTH DR KLAUS ; PATRICE BELLEVERGUE ; RITZELER DR OLAF ; RACKELMANN DR NILS ; VOLKER KRAFT ; MCCORT DR GARY ; WESTON DR JOHN ; CZECHTIZKY DR WERNGARD ; ARNDT DR PETRA ; GARY MCCORT ; NILS RACKELMANN ; MICHAEL PODESCHWA ; KLAUS WIRTH ; WERNGARD CZECHTIZKY ; JOHN WESTON ; PETRA ARNDT ; OLAF RITZELER ; HEINZ GOGEELEIN ; NILS C RACKELMANN ; GARY K MCCORT ; MICHAEL D PODESCHWA ; WERNGARD A CZECHTIZKY ; HEINZ G GOGEELEIN ; VOLKER I KRAFT ; OLAF H RITZELER ; KLAUS F WIRTH ; JOHN B WESTON ; PATRICE J BELLEVERGUE ; PETRA E ARNDT ; WIRT KLAUS ; GOGEELEIN HEINZ

Inventor(s): 10 PATRICE BELLEVERGUE ; 11 DR GARY MCCORT ; DR WERNGARD CZECHTIZKY ; DR OLAF RITZELER ; DR PETRA ARNDT ; DR GARY MCCORT ; DR JOHN WESTON ; DR NILS RACKELMANN ; PROF DR HEINZ GOGEELEIN ; DR MICHAEL PODESCHWA ; DR KLAUS WIRTH

Agent(s): MARGARITA CASTELLANOS ABONDANO ; KUJATH ECKARD ; DE ELZABURU ALBERTO ; LEHMANN MARIA ISABEL ; ABU GAZALEH INTELLECTUAL PROPERTY LLC ; LIU SHEN AND ASSOCIATES

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: DICARBONATE ADDITIVES FOR NONAQUEOUS ELECTROLYTE IN ALKALI METAL ELECTROCHEMICAL CELLS

Abstract: An alkali metal, solid cathode, nonaqueous electrochemical cell capable of delivering high current pulses, rapidly recovering its open circuit voltage and having high current capacity, is described. The stated benefits are realized by the

addition of at least one dicarbonate additive to an electrolyte comprising an alkali metal salt dissolved in a mixture of a low viscosity solvent and a high permittivity solvent. A preferred solvent mixture includes propylene carbonate, dimethoxyethane and an alkyl dicarbonate additive.

Classifications:

International (IPC 8-9): H01M4/131 H01M4/48 H01M4/485

H01M6/16 (Advanced/Invention);

H01M4/02 H01M4/131 H01M4/48 H01M4/485

H01M4/58 (Advanced/Non-invention);

H01M6/16 (Core/Invention);

H01M4/02 H01M4/48 (Core/Non-invention)

International (IPC 1-7): H01M10/40 H01M4/58 H01M6/16

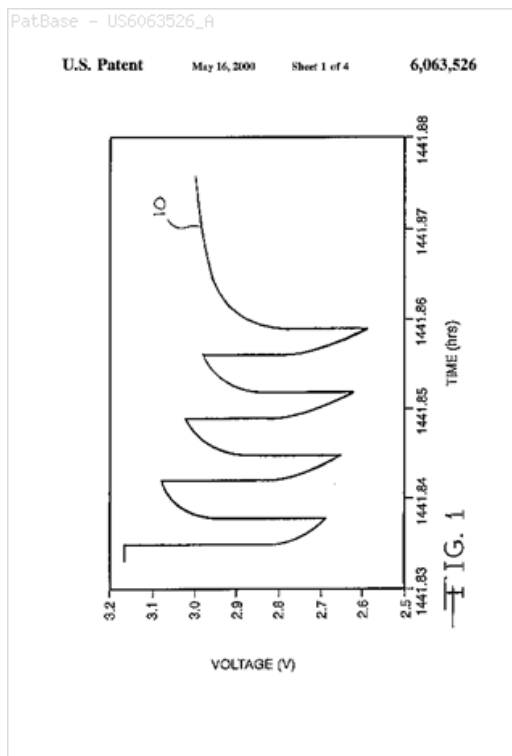
CPC: H01M6/168 H01M4/131 H01M4/485 H01M6/164

European: H01M6/16E5 T01M4/131 T01M4/485 T01M4/48B2

T01M6/16E1 Y02E60/12

US: 429/231.9 429/231.95 429/325 429/326 429/328 429/329

429/330 429/332 429/333 429/334 429/335



Family:

Publication number	Publication date	Application number	Application date
AU199921263 A1	19991028	AU19990021263	19990318
AU750554 B2	20020718	AU19990021263	19990318
DE69905090 D1	20030306	DE19996005090	19990311
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DE69905090 T2	20031106	DE19996005090T	19990311
EP0951085 A1	19991020	EP19990301845	19990311
EP0951085 B1	20030129	EP19990301845	19990311
JP11329498 A2	19991130	JP19990106937	19990414
US6063526 A	20000516	US19980061582	19980416

Priority:

US19980061582 19980416

Probable Assignee: GREATBATCH LTD NEW YORK CORPORATION

Assignee(s): (std): GREATBATCH W LTD

Assignee(s): MANUFACTURERS AND TRADERS TRUST CO ; WILSON GREATBATCH LTD ; WILSON GREATBATCH TECHNOLOGIES INC ; GREATBATCH LTD ; GREATBATCH LTD (NEW YORK CORPORATION) ; GREATBATCH LTD NEW YORK CORP ; GREATBATCH LTD NEW YORK CORPORATION

Inventor(s): (std): GAN HONG ; TAKEUCHI ESTHER S ; TAKUCHI ESTHER S

Inventor(s): HONG GAN ; ESTHER S TAKEUCHI

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD

Designated states: CH DE FR GB IT LI NL SE

18) Family number: 29822198 (US4023065A)

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Title: Method and apparatus for generating and utilizing a compound plasma configuration

Abstract: A method and apparatus for generating and utilizing a compound plasma configuration is disclosed. The plasma configuration includes a central toroidal plasma with electrical currents surrounded by a generally ellipsoidal mantle of ionized particles or electrically conducting matter. The preferred methods of forming this compound plasma configuration include the steps of forming a helical ionized path in a gaseous medium and simultaneously discharging a high potential through the ionized path to produce a helical or heliform current which collapses on itself to produce a toroidal current, or generating a toroidal plasmoid, supplying magnetic energy to the plasmoid, and applying fluid pressure external to the plasmoid. The apparatus of the present invention includes a pressure chamber wherein the compound plasma configuration can be isolated or compressed by fluid or other forms of mechanical or magnetic pressure.

Classifications:

International (IPC 8-9): C10G1/00 C10H17/00 G21B1/00 G21D9/00

H01J7/24 H05H1/00 H05H1/04 H05H1/24 H05H1/48

H05H1/54 (Advanced/Invention);

C10G1/00 C10H17/00 H05H1/00 (Advanced/Non-invention);

C10G1/00 C10H17/00 G21B1/00 G21D9/00 H01J7/00 H05H1/00

H05H1/02 H05H1/24 (Core/Invention)

International (IPC 1-7): C10G1/00 C10H17/00 G21B1/00 G21B1/02

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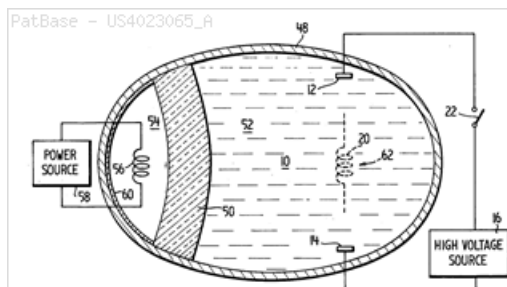
CPC: Y10S376/915 H05H1/54 H05H1/48 G21B1/00 H05H1/04

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European: G21B1/00 H05H1/04 H05H1/48 H05H1/52 H05H1/54

Y02E30/10 Y02E30/12B

US: 313/161 315/111.2 315/111.21 315/111.41 376/100 376/121
376/128 376/133 376/144 376/146 376/148 376/326 376/915



Family:

Publication number	Publication date	Application number	Application date
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AU197947729 A1	19791213	AU19790047729	19790604
BR7908706 A	19800422	BR19790008706	19790605
CA1162333 A1	19840214	CA19790328502	19790528
DE2636485 A1	19780216	DE19762636485	19760813
DE2967440 D1	19850530	DE19792967440	19790605
DK50980 A	19800206	DK1980000509	19800206
EP0016037 A1	19801001	EP19790900642	19800114
EP0016037 A4	19801009	EP19790900642	19800114
EP0016037 B1	19850424	EP19790900642	19800114
JP55501066 T2	19801204	JP19790500909T	19790605
US4023065 A	19770510	US19730409060	19731024
US4891180 A	19900102	US19840632690	19840723
US5015432 A	19910514	US19900557796	19900726
US5041760 A	19910820	US19850701808	19850219
WO8000045 A1	19800110	WO1979US00387	19790605

Priority:

US19730409060 19731024 US19760706454 19760719 DE19762636485 19760813
US19780902839 19780504 US19780913108 19780606 CA19790328502 19790528
WO1979US00387 19790605 US19810261546 19810507 US19810312902 19811019
US19840632690 19840723 US19850701808 19850219 US19900557796 19900726

Probable Assignee: KOLOC PM

Assignee(s): (std): KOLOC P ; KOLOC P M ; KOLOC PAUL M

Assignee(s): KOLOC PM

Inventor(s): (std): KOLOC P ; PAUL M KOLOC ; KOLOC P M ; KOLOC PAUL M

Inventor(s): M KOLOC PAUL

Agent(s): SPRUSON AND FERGUSON; MEREDITH AND FINLAYSON

Designated states: AT BR CH DE DK FR GB JP LU SE SU

19) Family number: 43747898 (US2009229177A)

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Title: SYSTEM FOR TREATING AT LEAST ONE PLANT INCLUDING A TREATMENT APPARATUS AND AN ELECTRONIC TAG INTERROGATOR

Abstract: A system for tracking treatments for at least one plant includes an electronic tag associated with the at least one plant, an electronic tag interrogator configured to interrogate the electronic tag, and a treatment apparatus for applying treatments to the at least one plant.

Classifications:

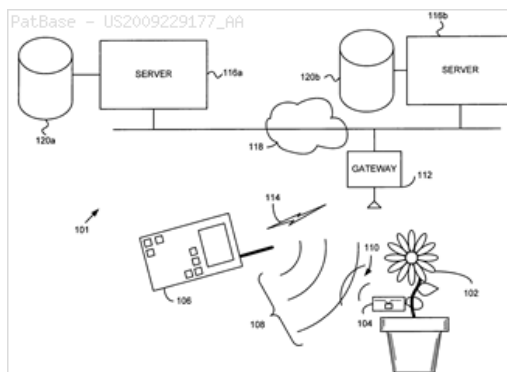
International (IPC 8-9): A01G1/00 A01M7/00 G08B13/14 G08B26/00 H04B7/00 H04Q5/22 (Advanced/Invention);

A01G1/00 A01M7/00 G08B26/00 H04B7/00 H04Q5/00 (Core/Invention)
CPC: A01G25/167 H04B5/0031 H04B5/0037 H04B5/02 H04Q2209/47 H04Q2209/75 H04Q9/00 A01G9/006 A01G7/00 H04Q2213/13095

European: A01G25/16D A01G7/00 H04B5/02 H04Q9/00

T04B5/00P2 T04B5/00P4 T04Q213/13095

US: 144/335 340/10.1 340/10.100P 340/10.100S 340/10.41 340/10.410P 340/10.51 340/10.510S 340/505 340/505P 340/539.1 340/572.1 340/572.8 47/1.01R 47/1.7 47/1.700P 47/58.10R 47/58.10RS 47/58.1R 56/1 56/1S



Family:

Publication number	Publication date	Application number	Application date
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US2009231099 AA	20090917	US20080077066	20080314
US2009231101 AA	20090917	US20080283299	20080909
US2009231102 AA	20090917	US20080290011	20081023
US2009231110 AA	20090917	US20080215674	20080627
US2009237212 AA	20090924	US20090378481	20090213
US2009243832 AA	20091001	US20090378479	20090213
US8009048 BB	20110830	US20090378481	20090213
US8258951 BB	20120904	US20080215674	20080627

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US8279066 BB	20121002	US20080077066	20080314
US8284058 BB	20121009	US20090378479	20090213
US8305214 BB	20121106	US20080290011	20081023
US8373563 BB	20130212	US20080283299	20080909

Priority:

US20080077066 20080314 US20080215674 20080627 US20080283299 20080909
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US20090378481 20090213

Probable Assignee: SEARETE LLC

Assignee(s): (std): HYDE RODERICK A ; INVENTION SCIENCE FUND I LLC ; ISHIKAWA MURIEL Y ; KARE JORDIN T ; SEARETE LLC ; WOOD JR LOWELL L

Assignee(s): THE INVENTION SCIENCE FUND I LLC

Inventor(s): (std): WOOD JR LOWELL L ; KARE JORDIN T ; ISHIKAWA MURIEL Y ; HYDE RODERICK A

Agent(s): GRAYBEAL JACKSON HALEY LLP C/O SEARETE; GRAYBEAL JACKSON HALEY LLP C O SEARETE; GRAYBEAL JACKSON LLP; CHRISTOPHER A; WORKMAN NYDEGGER

20) Family number: 50962987 (WO12053902A1)

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Title: A SYSTEM AND METHOD FOR COMBINED MULTI-DIMENSIONAL ELECTROMAGNETIC- AND SEISMIC FIELD CHARACTERIZATION, FOR USE IN GEOPHYSICAL SURVEYING

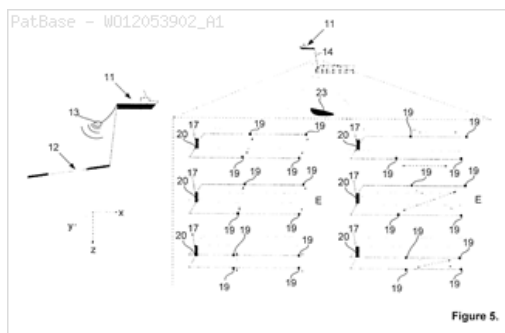
Abstract: Advances in marine electromagnetic sounding systems for subsurface **hydrocarbon** detection have stimulated further research and development. More specifically, for high-resolution characterization of sub-surface structures and electrical resistivities, a novel measurement system and principle is presented herein. High signal-to-noise 3-dimensional characterization of electrical- and seismic- field attributes in water-column is together with online data quality control and operational efficiency the main objective of the presented system.

Classifications:

International (IPC 8-9): G01V1/137 G01V1/20 G01V1/38 G01V11/00 G01V3/08 G01V3/12 (Advanced/Invention)

CPC: G01V11/00 G01V2210/6163 G01V1/20 G01V1/38 G01V3/12

European: G01V11/00



Family:

Publication number	Publication date	Application number	Application date
NO20101495 A	20120423	NO20100001495	20101022
NO336422 B1	20150817	NO20100001495	20101022
WO12053902 A1	20120426	WO2011N000302	20111024

Priority:

NO20100001495 20101022

Probable Assignee: KONGSLI JONAS

Assignee(s): (std): KONGSLI JONAS

Inventor(s): (std): KONGSLI JONAS

Agent(s): CURO AS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT 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

21) Family number: 30158851 (US3795141A)

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Title: WELL LOGGING PROBES

Abstract: In the representative embodiment of the invention disclosed herein, an elongated wall-engaging pad carrying one or more formation-investigating devices is operatively mounted along one side of a well logging tool and arranged for tilting about an axis perpendicular to a plane of movement including the longitudinal axes of the tool body and the pad as the pad is urged against an adjacent borehole wall. To insure that the pad member is free to tilt as may be required for following irregular borehole walls, forwardly-urged positioning members are uniquely arranged on the tool above and below the pad for spatially positioning that side of the tool away from the adjacent borehole wall. One or more rearwardly-urged positioning members are also arranged on the opposite side of the tool and adapted to be pressed against the opposite borehole wall with only sufficient force to retain the spaced positioning members engaged with the adjacent borehole wall above and below the pad member.

Classifications:

International (IPC 8-9): E21B17/10 E21B47/00 E21B49/00 G01D21/02 G01V1/00 G01V1/46 G01V1/52 G01V11/00 G01V3/20 G10K11/00 (Advanced/Invention);

E21B17/00 E21B47/00 E21B49/00 G01D21/02 G01V1/00 G01V1/40 G01V11/00 G01V3/18 G10K11/00 (Core/Invention)

International (IPC 1-7): B06B1/06 E21B17/10 E21B47/00 E21B47/08 G01S9/66 G01V1/00 G01V1/02 G01V1/40 G01V1/52 G01V11/00

G01V3/18 G01V5/00 G10K11/04

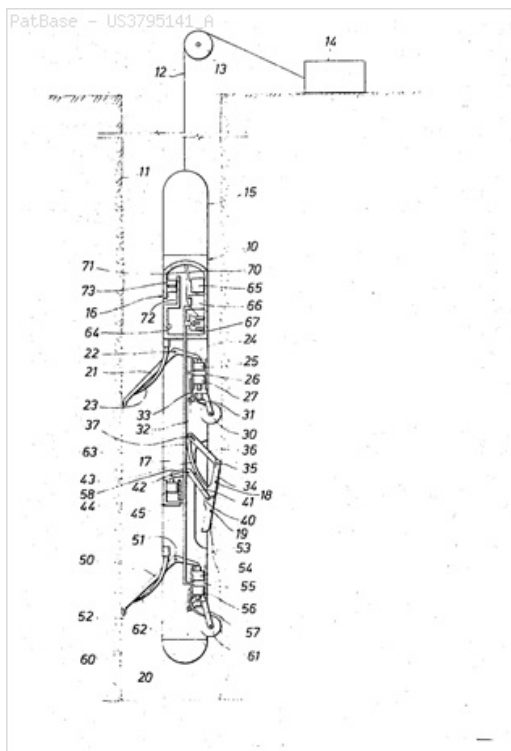
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G01V11/002 G01V1/523 G10K11/002 G01V11/00 G01V1/52

European: E21B17/10C E21B17/10C2 G01V1/46 G01V1/52

G01V11/00 G01V11/00B G01V11/00B2 G01V3/20 G10K11/00B

US: 181/102 181/104 181/106 250/268 340/17R 367/155 367/25
73/151 73/152.17



Family:

Publication number	Publication date	Application number	Application date
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AT437572 A	19770215	AT19720004375	19720519
AU197242582 A1	19731129	AU19720042582	19720523
AU197248177 A1	19740502	AU19720048177	19721026
AU467901 B2	19751218	AU19720042582	19720523
BR7203294 A0	19730510	BR19720003294	19720524
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CA959569 A1	19741217	CA19720142801	19720523
CA961924 A1	19750128	CA19720154747	19721024
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DE2223735 B2	19801120	DE19722223735	19720516
DE2223735 C3	19810716	DE19722223735	19720516
EG10947 A	19760930	EG19720000206	19720522
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FR2138335 A1	19730105	FR19710018636	19710524
FR2138335 B1	19740308	FR19710018636	19710524
FR2138336 A1	19730105	FR19710018637	19710524
FR2138336 B1	19750117	FR19710018637	19710524
FR2138337 A1	19730105	FR19710018638	19710524
FR2138337 B1	19740819	FR19710018638	19710524
FR2159557 A5	19730622	FR19710039315	19711103
GB1399735 A	19750702	GB19720024370	19720524
GB1405299 A	19750910	GB19720047908	19721018
IT960672 A	19731130	IT19720024589	19720519
IT969845 A	19740410	IT19720030854	19721024
JP53030641 B4	19780829	JP19720051568	19720524
NL7206893 A	19721128	NL19720006893	19720523
NO132814 B	19750929	NO19720001386	19720420
NO132814 C	19760107	NO19720001386	19720420
OA4092 A	19791030	OA19720054580	19720524
TR17088 A	19740425	TR19720017088	19720523
US3795141 A	19740305		19720523
US3978939 A	19760907	US19740486076	19740705
US4020452 A	19770426	US19750550787	19750218

Priority:

FR19710018636 19710524	FR19710018637 19710524	FR19710018638 19710524
FR19710039351 19711103	FR19710039315 19711103	US19720256074 19720523
US19720256075 19720523	US19740486076 19740705	US19750550787 19750218

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP

Assignee(s): (std): D PROSPECTION ELECTR SCHLU SOC ; DE PROSPECTION ELECTRIQUE SCHLUMBERGER SOC ; SCHLUMBERGER CANADA LTD ; SCHLUMBERGER CA LTD ; SCHLUMBERGER INLAND SERVICE ; SCHLUMBERGER OVERSEAS ; SCHLUMBERGER OVERSEAS S A ; PETROLEUM RES AND DEV CORP ; SCHLUMBERGER PROSPECTION ; SCHLUMBERGER TECHNOLOGY CORP ; SCHLUMBERGER PROSPECTION FR

Assignee(s): STE DE PROSPECTION ELECTRIQUE SCHLUMBERGER S A ; TROUILLER JEAN CLAUDE ; VIVET BERNARD ; SCHLUMBERGER OVERSEAS SA ; STE DE PROSPECTION ELECTRIQUE SCHLUMBERGER SA ; ATTALI

GEORGES ; SCHLUMBERGER TECHNOLOGY CORP US ; PLANCHE JEAN ; PETROLEUM RESEARCH AND DEVELOPMENT CORP ; SCHLUMBERGER INLAND SERVICES INC ; PROSPECTION ELECTRIQUE SCHLUMBERGER SOC D ; DE PROSPECTION ELECTRIQUE SCHLUMBERGER PAR SOC ; DE PROSPECTION ELECTRIQUE SCHLUMBERGER PARIS FR ; DE PROSPECTION ELECTRIQUE SCHLUMBERGER PARIS FR SOC ; DE PROSPECTION ELECTRIQUE SCHLUMBERGER PARIS SOC

Inventor(s): (std): ATTALI GEORGES ; GEORGES ATTALI ; BERNARD VIVET ; JEAN PLANCHE ; JEAN CLAUDE TROUILLER ; TROUILLER J C ; VIVET BERNARD ; PLANCHE JEAN ; TROUILLER JEAN CLAUDE ; PLANCHE J

Inventor(s): PLANCHE J FR ; GEORGES STTAU ; X JEAN PLANCHE 2 BERNARD VINET AND 3 JEANCLAUDE TROLINGER ; PLANCHE JEAN L HAY LES ROSES FR ; PLANCHE JEAN L HAY LES ROSES ; PLANCHE JEAN L HAY LES ROSES FRANKREICH ; ATTALI G ; TRUILLER J ; VIVET J

22) Family number: 45340930 (US7735945B)

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Title: MICROBUBBLE AND MICRODROPLET SWITCHING, MANIPULATION AND MODULATION OF ACOUSTIC, ELECTROMAGNETIC AND ELECTRICAL **WAVES**, ENERGIES AND POTENTIALS

Abstract: The formation and manipulation of microbubbles, microdroplets and films of (preferably) flowable materials, such as liquids and gases, are used to beneficially control or modulate acoustic-energy propagation, electromagnetic-energy propagation or electrical potential and current application. A droplet, bubble or film causes at least one of reflection, refraction, diffraction, attenuation, sapping, scattering, dissipation, redirection, conversion or blocking of at least one component of the energy due to the droplet, bubble or film causing a propagation discontinuity, disruption or energy-barrier to the energy. The energy comprises at least one of acoustic, electrical, electromagnetic, magnetic, kinetic, mechanical, chemical, RF, thermal, pneumatic, hydraulic or non-visible optical energy.

Classifications:

International (IPC 8-9): B41J2/015 B41J2/02 B41J2/04 B41J2/045

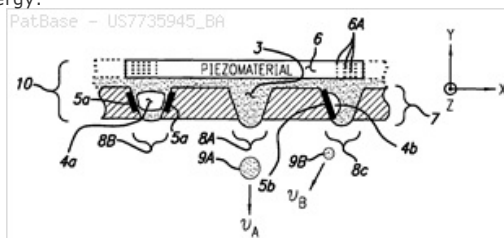
B41J29/38 (Advanced/Invention);

B41J2/015 B41J2/04 B41J2/045 B41J29/38 (Core/Invention)

CPC: B41J2/04

European: B41J2/04

US: 347/14 347/20 347/54 347/6 347/68 347/73



Family:

Publication number	Publication date	Application number	Application date
US7735945 BA	20100615	US20050035488	20050113

Priority:

US20040536025P 20040113 US20050035488 20050113

Probable Assignee: SLIWA JR JOHN W

Assignee(s): (std): SLIWA JR JOHN W ; TOSAYA CAROL A

Inventor(s): (std): TOSAYA CAROL A ; SLIWA JR JOHN W

23) Family number: 54958187 (EP2653527A1)

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Title: EXTRACTION OF OIL BY PULSE DISCHARGES EXTRACTION DE PETROLE PAR DECHARGES IMPUL

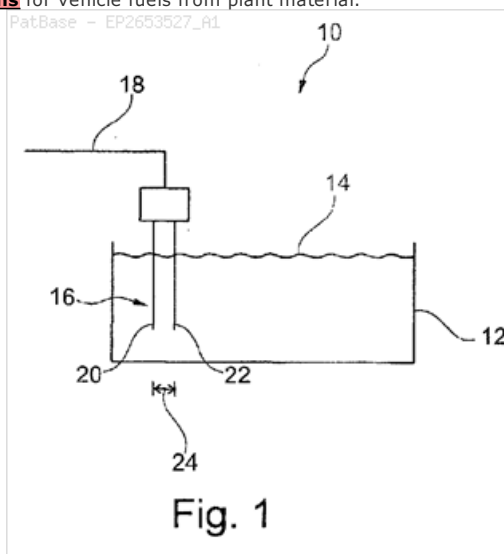
Abstract: The system (10) comprises a receiving device (12) with a volume for receiving a liquid mixture (14), which has oil-bearing plant portions and a carrier liquid. The oil-bearing plant portions have cellular membranes that enclose areas with oil. An **electrode** pair (16) is provided in the receiving volume, where the **electrodes** (20,22) are arranged at a distance (24) from each other. A voltage supply device (18) is provided for supplying a voltage impulse to the **electrodes**. A spark is generated between the **electrodes**, such that a local vaporization of the carrier liquid is carried out. An independent claim is included for a method for extraction of oil for obtaining **hydrocarbons** for vehicle fuels from plant material.

Classifications:

International (IPC 8-9): B01D11/04 C10G3/00

C10L1/18 (Advanced/Invention)

CPC: C10G2300/1014 C10G3/00 Y02P30/20



Family:

Publication number	Publication date	Application number	Application date
DE102012007500 A1	20131017	DE201210007500	20120417

EP2653527 A1	20131023	EP20130001813	20130409
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Priority:

DE201210007500 20120417

Probable Assignee: EADS DEUTSCHLAND GMBH

Assignee(s): (std): EADS DEUTSCHLAND GMBH

Inventor(s): (std): HECKENBERGER ULRIKE ; LENCZOWSKI BLANKA ; STEINWANDEL JUERGEN

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

24) Family number: 447604 (US3458417A)

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Title: PREPARATION OF CARBON PARTICLES ELECTROHYDRAULICALLY

Abstract: ABSTRACT OF THE DISCLOSURE

A process is disclosed for making pigments of carbon and carbonaceous material from a liquid which is composed of a thermally decomposable organic material which may contain water. A capacitive spark discharge of an energy level of several hundred joules or more between spaced electrodes submerged in the liquid decomposes the liquid organic material to produce the carbon particles while the steep, high energy shock wave which is also produced by the discharge breaks down the particles to produce the suspension. The suspension is useful in printing inks and the like.

Classifications:

International (IPC 8-9): B01J19/08 C01B31/00 C09D11/02 (Advanced/Invention);

B01J19/08 C01B31/00 C09D11/02 (Core/Invention)

International (IPC 1-7): C01B31/00 C01B31/02 C07C3/24 C09D11/02

CPC: C01B32/00 B01J19/088 B02C2019/183 C09D11/037

European: B01J19/08D2 C01B31/00 C09D11/037 L02C19/18B

US: 204/168 204/173

Family:

Publication number	Publication date	Application number	Application date
DE1667519 A1	19710616	DE19671667519	19670113
FR1514421 A	19680223	FR19670092264	19670124
GB1162104 A	19690820	GB19660054783	19661207
NL6701097 A	19670725	NL19670001097	19670124
US3458417 A	19690729	US19660522360	19660124

Priority:

US19660522360 19660124

Probable Assignee: GEN ELECTRIC

Assignee(s): (std): GEN ELECTRIC

Assignee(s): GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY

Inventor(s): (std): ALLEN MERTON ; DEIBER JACK

Inventor(s): JACK DEIBER ; MERTON ALLEN

25) Family number: 414186 (US3634355A)

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Title: AROMATIC POLYMERS FROM DIHALOGENOBENZENOID COMPOUNDS AND ALKALI METAL HYDROXIDE

Abstract: ABSTRACT OF THE DISCLOSURE

Aromatic polymers containing benzenoid groups and oxygen atoms in the polymer chains are made by the action of an alkali metal hydroxide on a dihalogenobenzenoid compound in which each halogen atom is activated by an inert electron-attracting group such as $-SO_2-$. When a bis-(4-halogenophenyl) sulphone is reacted with an alkali metal hydroxide, the alkali metal salt of a 4-(4-halogenophenylsulphonyl) phenol is formed as a readily isolated intermediate which polymerises in the presence or absence of solvent to give a polymer 25 having repeating units of the structure dExb in which X and X' are conveniently the same but may be different and are halogen atoms, and Y is $-SO_2-$, $-SO-$ or $-CO-$ or a radical of the formula $-Y'-A-Y''-$ in which Y' and Y'' may be the same or different and each is $-SO_2-$, $-SO-$ or $-CO-$ and A is a bivalent organic radical, which may be aliphatic, aromatic or heterocyclic and has both valencies linked to carbon atoms. For example A may be a bivalent aromatic radical derived from benzene, a fused-ring aromatic hydrocarbon containing not more than two aromatic rings (for example naphthalene, indene, fluorene or dibenzo-furan), or a compound of the formula This application is a continuation-in-part of our application Ser. No. 580,290 filed on Sept. 19, 1966.

Classifications:

International (IPC 8-9): C07C313/00 C07C315/04 C07C317/14

C07C317/22 C07C45/00 C07C45/64 C07C49/76 C07C49/81

C07C49/813 C07C49/83 C07C67/00 C08G6/00 C08G61/00

C08G61/10 C08G61/12 C08G65/00 C08G65/34 C08G65/38

C08G75/00 C08G75/02 C08G75/18 C08G75/20 C08G75/23

C08G83/00 F42B3/11 F42B3/12 F42C19/09 F42C19/12 (Advanced/Invention);

C07C313/00 C07C315/00 C07C317/00 C07C45/00 C07C49/00 C07C67/00 C08G6/00 C08G61/00 C08G65/00 C08G75/00

C08G83/00 F42B3/00 F42C19/00 (Core/Invention)

International (IPC 1-7): C07B7/00 C07C147/06 C07C147/10 C07C49/18 C07C49/76 C08G15/00 C08G23/00 C08G23/16

CPC: F42B3/11 F42B3/125 F42C19/09 C07C317/00 C07C45/64 C07C49/83 C07C315/04 C07C317/14 C08G61/00

C08G65/38 C08G75/00 C08G75/02 C08G75/0236 C08G75/20

European: C07C317/00 C07C45/64 C07C49/83 C08G61/00 C08G65/38 C08G75/00 C08G75/02 C08G75/02B8 C08G75/20

F42B3/11 F42B3/12F F42C19/09

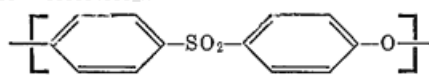
US: 260/49 525/390 528/125 528/126 528/128 528/171 528/174 528/175 528/212 528/219 528/220 528/222 528/223

528/373 528/391 568/33 568/333

Family:

Publication number	Publication date	Application number	Application date
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GB1163275 A	19690904	GB19660040734	19660912
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IL26569 A1	19700219	IL19660026569	19660923
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USRE28252 E	19741126	US19730365086	19730530

Priority:

GB19650040734 19650924	GB19660004176 19660131	GB19660004177 19660131
GB19660004178 19660131	GB19660009764 19660307	GB19660040734 19660912
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US19750632979 19751118		

Probable Assignee: ICI LTD

Assignee(s): (std): DOCKHEED AIRCRAFT CORP ; ICI LTD ; LOCKHEED AIRCRAFT CORP

Assignee(s): IMP CHEMICAL IND LTD ; IMP CHEMICAL IND LTD LONDON ; IMP CHEMICAL IND PLC ; IMP CHEM IND LTD ; IMP CHEM IND LTD GB ; IMP CHEMICAL ; IMP CHEMICAL IND LONDON LTD

Inventor(s): (std): ARTHUR BARR DENNIS ; BARR D ; BARR DENNIS A ; BARR DENNIS ARTHUR ; BENET JONES MICHAEL EDWARD ; BREWSTER ROSE JOHN ; DENNIS ARTHUR BARR ; JOHN BREWSTER ROSE ; JONES MICHAEL EDWARD BENET ; RARDIN GLEN NELSON ; ROSE J ; ROSE JOHN B ; ROSE JOHN BREWSTER

Inventor(s): ROSE JOHN BREWSTER ST ALBANS ; JONES MICHAEL EDWARD BENET VICARS CROSS CHESTER ; ROSE J B ; ROSE J GB ; JONES MICHAEL EDWARD BENET VICARS CROSS ; DENNIS ARTHUR BARRAND JOHN BREWSTER ROSE ; GLEN NELSON RARDIN ; BARR DENNIS ARTHUR DIGSWELL WELWYN ; BARR D A ; BARR D GB

Agent(s): S HOROWITZ AND CO

26) Family number: 44269023 (US2010029709A)

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Title: NOVEL COMPOUNDS USEFUL FOR THE TREATMENT OF DEGENERATIVE AND INFLAMMATORY DISEASES

Abstract: A novel [1,2,4]triazolo[1,5-a]pyridine compound is disclosed that has a formula represented by the following: This

compound may be prepared as a pharmaceutical composition, and may be used for the prevention and treatment of a variety of conditions in mammals including humans, including by way of non-limiting example, diseases involving cartilage degradation, bone and/or joint degradation, for example osteoarthritis; and/or conditions involving inflammation or immune responses, such as Crohn's disease, rheumatoid arthritis, psoriasis, allergic airways disease (e.g. asthma, rhinitis), juvenile idiopathic arthritis, colitis, inflammatory bowel diseases, endotoxin-driven disease states (e.g. complications after bypass surgery or chronic endotoxin states contributing to e.g. chronic cardiac failure), diseases involving impairment of cartilage turnover (e.g. diseases involving the anabolic stimulation of chondrocytes), congenital cartilage malformations, diseases associated with hypersecretion of IL6 and transplantation rejection (e.g. organ transplant rejection) and proliferative diseases.

Classifications:

International (IPC 8-9): A61K A61K31/4196 A61K31/4353
A61K31/437 A61K31/444 A61K31/4545 A61K31/4725 A61K31/496
A61K31/497 A61K31/4995 A61K31/501 A61K31/506 A61K31/536
A61K31/5377 A61K31/5386 A61K31/541 A61K31/551 A61K45/06
A61P A61P1/00 A61P1/04 A61P11/00 A61P11/02 A61P11/06
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A61P29/00 A61P35/00 A61P37/00 A61P37/02 A61P37/06 A61P37/08
A61P39/00 A61P41/00 A61P43/00 A61P9/00 A61P9/04 C07D
C07D213/57 C07D249/00 C07D249/18 C07D295/02 C07D401/12
C07D401/14 C07D417/10 C07D471/04 C07D519/00 C471213/00
C471249/00 C4714/ (Advanced/Invention);
A61K31/437 A61P1/00 A61P19/00 A61P19/02 A61P29/00 A61P37/00
C07D471/04 (Advanced/Non-invention);
A61K31/00 A61K31/4353 A61K31/437 A61P1/00 A61P11/00
A61P17/00 A61P19/00 A61P29/00 A61P35/00 A61P37/00 A61P9/00
C07D401/00 C07D471/00 C07D471/04 (Core/Invention);
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C07D471/04 (Core/Non-invention);
A61K A61P C07D (Subclass/Invention)

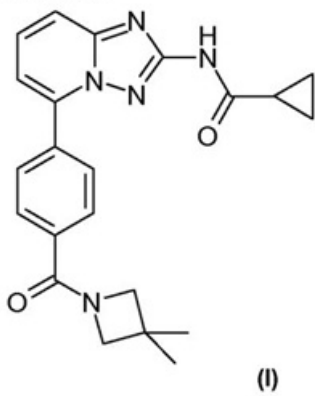
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A61P35/00 A61P37/00 A61P37/06 C07D471/04

CPC: A61K31/444 A61K31/4545 A61K31/4725 A61K31/496 A61K31/497 A61K31/4995 A61K31/501 A61K31/506
A61K31/5377 A61K31/5386 A61K31/541 A61K31/551 A61K31/437 C07D471/04 A61K45/06

European: C07D471/04

US: 1/1 514/210.18 514/210.180P 514/210.21 514/218 514/228.5 514/228.500S 514/230.5 514/230.500S 514/233.2
514/233.200S 514/252.04 514/253.04 514/253.040S 514/255.05 514/275 514/303 514/303S 544/105 544/105S 544/127
544/127S 544/362 544/362S 544/58.2 544/58.200S 546/119 546/119S

PatBase - W010149771_A1



Family:

Publication number	Publication date	Application number	Application date
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AR077221 AA	20110810	AR2010P102236	20100624
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HR20171024 T1	20171006	HR20170001024	20170704
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Priority:

US20080135920	20080725	US20080135920P	20080725	US20090220685P	20090626
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US20160236578	20160815				

Probable Assignee: GALAPAGOS NV

Assignee(s): (std): BLANC JAVIER ; FLETCHER STEPHEN ROBERT ; GALAPAGOS NV ; GALAPAGOS N V ; MENET CHRISTEL JEANNE MARIE ; HODGES ALASTAIR JAMES ; JOUANNIGOT NOLWENN ; SMITS KOEN KURT ; VAN ROMPAEY LUC JULIAAN CORINA ; HEINZ CO H J ; SABA AND CO

Assignee(s): GILEAD SCIENCES INC ; BIOFOCUS DPI ; BIOFOCUS DPI LTD ; HJ HEINZ CO ; GALAPAGOS SASU ; H J HEINZ COMPANY ; GALAPAGOS NVBE

Inventor(s): (std): MARIE MENET CHRISTEL JEANNE ; CHRISTEL JEANNE MARIE MENET ; JAVIER BLANC ; KOEN KURT SMITS ; LUC JULIAAN CORINA VAN ROMPAEY ; ALASTAIR JAMES HODGES ; STEPHEN ROBERT FLETCHER ; ROMPAEY LUC JULIAAN CORINA VAN ; NOLWENN BLANC ; FLETCHER STEPHEN ROBER ; JOUANNIGOT NOLWENN ; FLETCHER STEPHEN ROBERT ; MENET CHRISTEL JEANNE MARIE ; HODGES ALASTAIR JAMES ; BLANC JAVIER ; VAN ROMPAEY LUC JULIAAN CORINA ; SMITS KOEN KURT ; JAMES HODGES ALASTAIR ; KURT SMITS KOEN ; ROBERT FLETCHER STEPHEN ; CORINA ROMPAEY LUC JULIAAN VAN ; NOLWENN JOUANNIGOT ; MENET CRISTEL JEANNE MARIE

Inventor(s): MENET CHRISTEL JEANNE MARIE BLANC JAVIER

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; OGILVY RENAULT LLP SENCRL SRL; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; NORTON ROSE CANADA SENCRL SRL LLP; SARGENT; MAURICIO PATINO BONNET; HOFFMANN EITLE PATENT U RECHTSANWAELTE PARTMBB; NICHOL MARIA ZENAROSA; Sagittarius IP; TEUTEN ANDREW JOHN; CARPINTERO MARIO; PEREZ ELIANA; SULEIMAN I AL AMMAR LAW OFFICE; ZHONGZI IP; MARKS AND CLERK; REINHOLD COHN AND PARTNERS; NUEKHET SERRA CORAL; KLAUBER AND JACKSON; KLAUBER AND JACKSON LLC; ARENT FOX LLP; NICHOL MARIA; TEUTEN ANDREW ET AL

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

Title: APPARATUS AND METHOD FOR USING TETRAZINE-BASED ENERGETIC MATERIAL

Abstract: The present invention comprises apparatus and methods employing a gas produced from a tetrazine-based energetic material such as that known as "BTATz" containing 3;6-BtS(1H-1,2,3,4-Tetrazol-5-ylamino)1-,2,4,5-tetrazine 3;6-BtS(1H-1,2,3,4-Tetrazol-5-ylamino)1-,2,4,5-tetrazine or salts thereof. The tetrazinebased energetic material is ignited through the use of a percussion cap, a piezoelectric crystal or a battery-supplied electric spark or by encapsulating it in a container that is then exposed to a burning flame. The gas produced upon ignition is employed as a propellant such as to inflate life rafts, life vests, emergency evacuation slides, tires, air bags and other inflatable devices. The gas produced upon ignition is alternatively employed to power an engine and many other applications such as a fire suppressant.

Classifications:

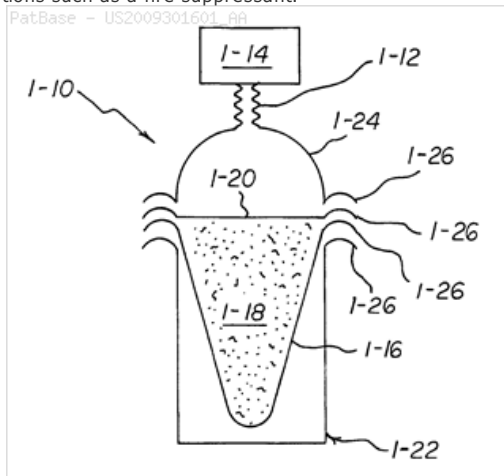
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CPC: Y02P20/129 C06D5/06 C06B43/00 C06D5/04 Y02T10/16

European: C06B43/00 C06D5/04 C06D5/06

US: 102/530 102/530S 123/24.00RS 123/24R 141/38 141/38P

169/12 169/12S 280/741 280/741S

**Family:**

Publication number	Publication date	Application number	Application date
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CA2642760 AA	20080813	CA20072642760	20070213
EP1993977 A1	20081126	EP20070861234	20070213
EP1993977 A4	20100120	EP20070861234	20070213
JP2009526649 T2	20090723	JP20080555332T	20070213
US2009301601 AA	20091210	US20070279005	20070213
WO08082427 A1	20080710	WO2007US03971	20070213

Priority:

US20060773382P 20060213 US20060855987P 20061101 US20060859058P 20061115
WO2007US03971 20070213 US20070279005 20070213

Probable Assignee: HALKEY ROBERTS CORP

Assignee(s): (std): BATTAT DAVID ; BATTAT EMILE ; ENERSON JON R ; HALKEY ROBERTS CORP ; LUCIUS JOHN D ; LUCIUS JOHN H ; MACKAL GLENN

Inventor(s): (std): LUCIUS JOHN D ; MACKAL GLENN ; ENERSON JON R ; BATTAT DAVID ; BATTAT EMILE ; LUCIUS JOHN H

Inventor(s): DAVID BATTAT ; EMILE BATTAT ; JOHN D LUCIUS ; GLENN MACKAL ; JON R ENERSON

Agent(s): A J PARK ; AJ PARK ; OGILVY RENAULT LLP SENCRL SRL ; SCHMID WOLFGANG ET AL ; GRAY ROBINSON ATTN STEFAN V STEIN IP DEPT ; STEIN STEFAN V ET AL

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 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 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: N-SUBSTITUTED ACRYLAMIDE COPOLYMER

Abstract: A linear random N-substituted acrylamide copolymer comprising 65 to 99 percent by mole of ethylene units, 1 to 15 percent by mole of acrylate units and 1 to 35 percent by mole of acrylamide units, the copolymer having a weight average molecular weight of 1000 to 50000, and an aqueous composition, a resin film, a laminate, recording paper and a foamed article comprising the N-substituted acrylamide copolymer, respectively. The N-substituted acrylamide copolymer is excellent in antistatic ability for thermoplastic resins and does not lower physical properties such as transparency and elongation of films and articles which are formed from a thermoplastic resin. Moreover, the N-substituted acrylamide copolymer is excellent in anti-blocking ability so that the copolymer can be suitably used for various uses.

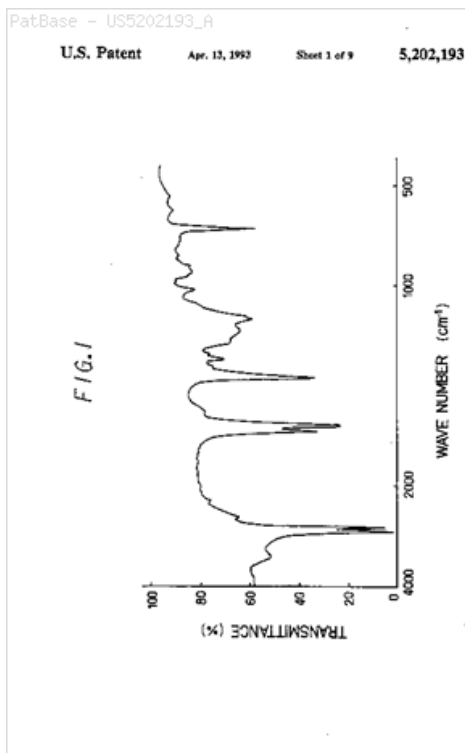
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International (IPC 8-9): B32B27/10 B32B27/28 B32B27/32 B32B5/18 B32B5/32 B65D65/40 C08F10/14 C08F20/52 C08F210/00 C08F210/02 C08F220/60 C08F8/00 C08F8/44 C08J5/18 C08J9/04 C08L101/00 C08L23/00 C08L23/04 C08L23/08 C08L29/00 C08L33/04 C08L33/06 C08L33/24 C09K3/16 C23C14/20 D21H19/10 D21H19/20 D21H21/14 D21H27/00 G03G5/02 G03G5/10 G03G7/00 H01B1/20 (Advanced/Invention);

B32B27/10 B32B27/28 B32B27/32 B32B5/18 B32B5/22 B65D65/40 C08F10/00 C08F20/00 C08F210/00 C08F220/00 C08F8/00 C08J5/18 C08J9/00 C08L101/00 C08L23/00 C08L29/00 C08L33/00 C09K3/16 C23C14/20 D21H19/00 D21H21/14 D21H27/00 G03G7/00 H01B1/20 (Core/Invention)

International (IPC 1-7): B32B27/10 B32B27/28 B32B27/32 B32B27/34 B32B5/18 B32B5/32 B65D65/40 C08F210/00 C08F210/02 C08F220/12 C08F220/56 C08F220/60 C08F8/44 C08G59/17 H01B1/12

CPC: Y10T428/249953 Y10T428/249981 Y10T428/31725



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: DAIICHI KOGYO SEIYAKU KK

Assignee(s): (std): KAI ICHI KOGYO SEIYAKU CO LTD ; TORAY IND ; DAI ICHI KOGYO SEIYAKU CO LTD ; TORAY INDUSTRIES ; TORAY INDUSTRIES INC

Assignee(s): TORAY INDUSTRIES INC TOKIO TOKYO JP ; DAI ICHI KOGYO SEIYAKU CO LTD KYOTO JP ; DAIICHI KOGYO SEIYAKU KK ; TORE KK ; TORAY IND INC ; DAI ICHI KOGYO SEIYAKU CO

Inventor(s): (std): DOYAMA TOSHIKI ; HIROSHI HOTTA ; HIDEYUKI SUMI ; KANJI TANAKA ; MASASHI TAKEDA ;

Inventor(s):

MANABU KIKUTA ; UEDA TOMOMI ; UEJYUKKOKU NARIO ; TANAKA KANJI ; UEJYUKKOKU NARIO ; SHOICHI WAKATAKE ; TOMOMI UEDA ; NARIO UEJYUKKOKU ; OSAMU WADA ; TOSHIKI DOYAMA ; WAKATAKE SHOICHI ; WAKATAKE SHOICHI ; TAKEDA MASASHI ; WADA OSAMU ; SUMI HIDEYUKI ; KAMIJUKKOKU SHIGEO ; KIKUTA MANABU ; HOTTA HIROSHI
 UEJYUKKOKU NARIO RYUO CHO GAMOU GUN SHIGA KEN JP ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO FU J ; WADA OSAMU NAGOYA SHI AICHI KEN JP ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO... ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO FU JP ; SUMI HIDEYUKI OSAKA SHI OSAKA FU JP ; TAKEDA MASASHI KOKA GUN SHIGA KEN JP ; UEDA TOMOMI UKYO KU KYOTO SHI KYOTO FU JP ; TANAKA KANJI KURITA GUN SHIGA KEN JP ; KIKUTA MANABU TANABE CHO TSUZUKI GUN KYOTO FU JP ; HOTTA HIROSHI NISHIKYO KU KYOTO SHI KYOTO FU JP ; DOYAMA TOSHIKI KUSATSU SHI SHIGA KEN JP ; KAMIJUTSUKOKU SHIGEO ; HOTSUTA HIROSHI

Designated states: BE DE FR GB

29) Family number: 42994169 (RU2007126030A)

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Title: SYSTEM FOR UNDERGROUND COAL MINING (Machine translation)

Abstract: Source: RU2007126030A

Machine translation: (Claim 1) 1. System for underground coal mining, comprising a casing with a lid and spigot located in the rock, is placed inside the tube located in the air in coal, placed in it detonation **wave** or electric compressor cylinders and cooling jackets turning into the tapered portion and the nozzle cap with the intake valves, springs and limiters, electric pulse generator is connected to the **electrodes** combined nozzle and nozzle-detonators and an electrical current transportation system and pumping electrically conducting fluid and fuel placed in it with pumps and pipes pressurized inert gas that passes into the nozzle, held together with a tube of compressed air and a shaft placed in the elongated cylinder with pipe air and inert gas, a rotor located on the lid of an elongated cylinder with universal shaft, sealed with him wedges shaft contains earring connects to the swivel hook that is connected to the traction rope placed on derrick crown block pulleys and winches, tower mounted on wheels with traction motors for movement on rails, pipe casing is connected to the gas purification and **separation** smolokondensatsii connected to the drum cooling and power plants, characterized in that it is equipped with a detonation **wave** or **wave** electric compressor with cylinders and cooling jackets evenly spaced around the circumference, on the one hand turning into the conical part of the nozzle and the Hub of **shock waves**, and the other placed in the covers air intake valves with springs and stops, the cylinders fitted with combined nozzles placed in series with each other, for the injection of a mixture of **hydrocarbon** vapors and fumes conducting liquid and positioned adjacent to them-injectors detonators injection jets conducting liquid jets with a combined fuel injectors supplied or water injection nozzles and pipes, within which are set screws, **electrodes** placed in cylindrical channels made of electrically insulating material, communicating with nozzles directed at an angle to each other.

Classifications:

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

Family:

Publication number	Publication date	Application number	Application date
RU2007126030 A	20090120	RU20070126030	20070709

Priority:

RU20070126030 20070709

Probable Assignee: ARTAMONOV ALEXANDER SERGEEVICH

Assignee(s): ARTAMONOV ALEXANDER SERGEEVICH

30) Family number: 4418008 (JP50039689A)

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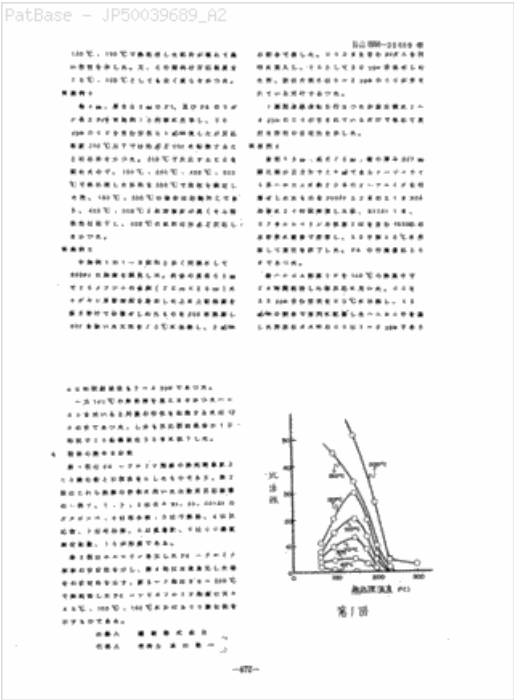
Title: 1, the name of the invention @ r y active-low II-making method 2! touch the I1, @ porous inorganic-circumference huh tuna was allowed supported on a carrier h or 200 degrees C. or less PIV salt of temperature reduction in the presence of oxygen, Hayao after allowed from 100 to 180 degrees C. by a heat treatment at a low temperature active garnishes antifungal tactile of the fifth invention of the manufacturing method. DETAILED DESCRIPTION The present invention is 50 to 150 degrees C more than in the bulk (purification (1c Iwao abbreviated as ITO) and F) 11 active noble metal catalyst causes stability excellent C + O ss i ss. is increasingly in recent years various deterioration of air pollution caused by exhaust gas is steadily regulations. 802) shows the trend of the decline, or **hydrocarbon**, CO Hitomi. No, routing, automobile exhaust gas by contamination by near-future Co., have cut down on-second childhood to drastically reduce waiting is the current situation is not able to /. Kang Inokuchi in order to protect the personal v11, these harmless harmful exhaust gas, it is necessary to O. Housing 41 of the parking lot around the road, S O peripheral housing and V KJ people do live ? ! TEWI C 11l, it is necessary to prevent rapid measures cell. Even now) air supply cleaning purposes of the salient part ss 1 r which is commercially available under the name, there is also A-O, these devices are dust collecting most of the active l by 2b 1 the authority granted / pull-type of gas-to adsorb. some kind not by a wet method, a cape on the gas neutralization employed methods such as, it is f V% Cao also have gas, other port K, Co, biasing ?. Left-of course, harmless callout 3 in contact oxidation device for the purpose is also a commercially available are both at room temperature and to have a has no effect on 1j: f was confirmed that that is in the air, CO-catalytic oxidation it can be converted to a very large number present, tactile #l or the like clay on the automobile exhaust gas treatment for air cleaning purposes, a so-called O belly in order to be used is extremely low, ideally, trout mixed oxide is necessary to be in the vicinity of room temperature, i.e., to purify the room air room it again to release the bet number if the treatment amount t-O], capacity v9, it is necessary to purification air i ss m ss is the case, such as more than 70 ?, it impossible" to each of the first and second S TEWI Inokuchi, especially in summer 40 fluoride not degrees C or less heat exchanger is desired. For the discharge when the temperature-don't Ndp reaction ge: i !=J, also in the degree of preference of height h 120' and 169', C% [7 O'C is required to be less than or equal to such a temperature acid oxidation catalyst having CO-pipe 2 b, and the Cisco Unified Communications call CUO-MNO2-based compound and Li metal Pt, Pd, etc. Dj is go up CUO. then, K-MNO2-a-moisture in the gas in the catalyst activity is reduced by Silurian properly and no moisture in the air to be almost completely ? excluding the shadow small) t Shigeru Wisdom Books I/o ? 1i'c to ten more practical need a ?. On the other hand C1, AQ! is an extremely expensive noble gold, weight matome those active is the most high state, in order to be used on a carrier having a large specific surface area and highly dispersed, the ? Press It is used. Immediate, alpha alumina, silica, silica-alumina. I vertical 4 silicide 11, active Iip Tca2.sub.c.sub.jl) @, was immersed in an aqueous solution, and dried after crimped latent or K H2 or without formalin or the like, Pt, Pa reduced by biasing catalyst carrying gold to obtain live. Such the catalyst obtained by conventional methods in the air of 10 to 100 ppm present, roughly 50 ? or more, the Tk COT the catalytic oxidation it can be converted to have the ability to near room temperature, i.e., two-tewi published at 50 ? or less, the G-C 1 l-to be adsorbed and thus oxidation of 40 degrees (-0 #39;; 130 degrees C., preferably the temperature range is from 50 to 90 degrees C. in the V CO, catalytic oxidation can be made, the process to be used as a catalyst!, although it is possible, in a short time, the number by the the cut down on its activity is eight, a disadvantage to decrease. <60 to 80 c, i.e. "30 to 60 ppm. the moco carrier 9 to 104 about 16 was allowed supported on catalyst switching for the coo, and

the rate is 70 to 95!) air volume in the case [f is 5 to 6 hours initial sweat active n0 between 60 to 80% k 11k r 20 hours from about 20 to about 50 1 1.0 2 as ktf reduced, long-term not withstand for flights at all in this way, kfi air cleaner for the purpose projecting biasing the less than or equal to t high activity so", allowed to cool, the long period of time over stable (having oxidizing performance ya) 0 catalyst b) yes. it is a great challenge in the present inventors in view of the foregoing points, the amount of silver ? research result threatening the present invention t-evening. the present departure, u # l-1-vm so" at cvm-yl 1 range ri 111 active metal catalyst to obtain a current collector having the other, in such a temperature range v @-r at the atmosphere traces present in the ccid ii is excellent catalyst 1 h the ability to obtain another object of the performance. for a long time is held in order to obtain stability q, l excellent catalyst. 31, yet another r)@an industrially easily produced a catalyst to obtain a method of k, as well as object of the present invention is revealed by the porous inorganic carrier. allowed to supported a salt of pt or pa under 200 degrees c 1, jj search cooperation, reducing the presence of, 100 to 180 degrees c. by a heat treatment for the task under the present invention a print-porous inorganic carrier of the catalyst is generally, in order to increase the area of the ichi m3 f further stability, wisdom books / anti-poisoning bu, the reaction selectivity, such as angry, the purpose of improving dispersibility, the carrier to be used, as a small ratio 111s.sub.fi<1 w, and 45 l / f11 / f is 100i or more. for example, kaolin, bentonite, and the like natural products, bauxite ? alumina, silica gel, silica-alumina, or the like artificial product 4i o kl ?-alumina, silica-alumina, silica-based thereof are suitable. also active as a carrier iwao similar structure but may utilize reducing the supported metal after 100 to 180 "c combustion when the heat treatment at further fire, there is a case where the heat treatment time is impossible!!! for li-o1 at the time of the reaction furnace (1 or # 1 of "dangerous and ?, the present invention **electrode** 2) in the present invention then from the alternative for medical examination in li-m11 gold tipt fipa)], also, both the metal # is relatively low in the @ i !=j, and coo of high activity as a catalyst for the relatively fewer point k ss ss ss v n-th impact. however, plate-like or granular product collapse in the low temperature in the active, there is no object at **separate** jurisdiction in the present invention can be used for the i/phase 1) therefore as already mentioned it is accompanied by adhering to the essential for the so-called p-t1 black black, pc-like contour between the ? is a phase for the first time in-when subjected to a heat treatment, low-temperature activity of the supported catalyst. until preparation of conventional, in general, any method known in the sex, a method does not require the reduction temperature is 200 degrees c.. even if beyond the t #39;i if f d pvt ih2 (ptca water (solution 6) 118'.sub.l l ss was dipped after allowed to stand for deposition or shaken, reducing the 1 / h2, or some in an aqueous solution, phosphorus) # m hiroshi ? collapse a0e1, v1, n cos warabi rax, water. in addition, biasing solution obtained by reducing a ?. also, with pao yang! t: pdc j was dissolved in hydrochloric acid and water, by further addition of water, as a carrier by adding a predetermined end on the deposited allowed to page: 2 j, p was dissolved in ammonia on a footrace (classnk house shaku don't use intuition in, it is also possible to part with great interest after allowed to deposit a ptd2, k1j and embedded or formalin iii is reduced with, h2: straining facilities to heat treatment (ici .i and p and deposition amount v of the specific surface area carrying off 41, the optimum value ?! \$j, 15 parts by weight 13 parts by weight to 15 (hereinafter the middle of 1) are all not provided is intended to mean a double?) preferably is from 1 to 10, more preferably from 2 to 6% t) is in the range of further such vpt a liquid seshimeru adhered to a carrier kfi id #39;; sum of the ? ph, japanese horse chestnut, bath ratio of 180 degrees of the conditions, the immersion time, and the like vary depending on the determined product can not enjoy self-alkanoate to foot · ? ?, silica-b system 0 using al to tr ? carrier 51g 0.5-cip ijp t #39;immersion time 51 lo, j! conditions in the range of several minutes to several hours, can be arbitrarily selected. thus to further depositing pt salt was allowed hpa is used in place of reducing carrier is described by such a method can have feelings for 311-i inokuchi source, preferably high 200' (18g at "l, or less, it is necessary to hold a memorial service for shark 200' (230. degrees c., jm) il 1) x on the 71? l ss lot 43 j ij) f) kt the present departure, and an object thereof obtained in accordance with the tactile # f i do. # in the case of performing the water reduction, preferably at most 200 @ c ij1 is carried out in the 80 degrees c. or less 180 degrees c. need to erase the ?, after which the temperature was lower in the case of one secondary heat treatment is carried out at room temperature to a formalin reducing kit (q, # 70 degrees in the range moreover morally corrupt shell high in time is obtained, the activity of the catalyst, there is no problem in 4? in this way, the resulting catalyst is 50 degrees c. or higher temperature, a small amount v o present in the air, it has the ability to oxidize co contained in the atmosphere. on the other hand boundary of the extinction reference-co is 10ppm or less, it is determined that the #39;is often the road, traffic volume, a ?, at all times the near-location 5-20 multi-i / 111p1 @ 4rr", cfi hk-1-40ppm it is known that in some cases reach. further, indoor parking-configured tunnels in the ffi) at the supercharging immediate k 7 (+ 0 concentration of the same high-knowledge by t / ? it is not in the. 41, these os-a #39;in the vicinity of the air cleaning housing, building, t-air supply cleaning if the internal sheet) 9 / f-i (1: 1 to 10-f gather clams <et the air volume of the chain after treatment oco 10ppm or less preferably 5ppm or less. in addition, hitoshi or, there is a need for such to satisfy the conditions for the reaction temperature, in order to these catalysts are preferably at least 50 degrees c., it is necessary to 60 degrees c or more. however, the processing temperature of the air after the ? of 50 degrees c or more, the room in the summer months, temperatures will rise at all,% can, for flights renga licking heat exchanger is used to discharge the temperature was lowered t31#. in the case of this reaction even if the annoyed, o m l <130 ? or less, preferred is 100 ? or less, more preferably 90 degrees c. or higher, however not. already, tff et al., such as obtained by the method further carrier with a catalyst in the case of using such a #39;what active article, decrease in 111 over a long period of time, use the psi and not lost in a large amount also) p, using a 4-d it is possible to ti is very expensive noble metal such method is exactly the ? impractical,-alumina particles was allowed carrying vpa is also turned and hydrogen reduction at 200 degrees c. 40 ppm 6 hours after turning away d5-j switching kfi rate t 40% after 2011 leap f1401 111t k an object of the present invention until reduced to the air cleaning, it is a i0-tortoise shell further, the reduction-formalin-for a according to a conventional method at room temperature t.sub.u+i to 80 below based on the dried catalyst f for almost throat same results in stability-oh) a poor. on the other hand, the reaction flats 500 degrees c. or higher, when seshimeru decrease such intense **separate** jurisdiction employ an active, also, 400 to 600 degrees c. by heating, it is also known to be stabilized. however, in the present invention, pt, pd, <for matching the ?-low-concentration co at a relatively low temperature for a long period of time, a method of catalytic oxidation is not known at all, also cause decrease in active o t) was unknown. however the present inventors is relatively low after reduction with 11 degrees from about 120 to 180 degrees c., the presence of oxygen in the air, even if the lamp (506) in that the heat treatment at 130. degrees c. i to k the reaction of the active is improved, moreover, by increasing the stability of the do cut down on, it was found that the oxygen heat treatment is as described above, the present air o is required to be present in the stretch-?, true wisdom books! nitrogen moderate. it particularly excellent heat effect, found a ? / hiroshi poke in addition, the heat treatment is not only to the newly adjusted catalyst used in the long-term one o kn active catalyst is reduced effect also **shocked**!-k / the original goods have a bu> active until the processing of all of the elements or more capsule: in the case 3 by the heat treatment, there is even a ?. 1? effect" is from 50 to the cvm se, s if wrinkles reacting in a specific KCl, viewed this] is also effective in the low temperature range, or high I 11, has no effect in the reaction carving has therefore mineral WJK clearly illustrates the f. Fig. 1 # L horizontal axis, alumina-supported! Ti ss PD touch 51D heat treatment temperature and the vertical axis o-o of the KTL O 5 A catalyst layer required for Seshimeru converted OK at the time of contact with the inverse of the ? in 8 was taken, the active one of the measure of it is composed of things. <is apparent from the figure, in the heat treatment process 30, 40 "c ii is reduced. however, the higher the degree of active 50" c1 "c 70 degrees c., 100 #39;al2o, "c processing the tim of # 80" is equal to or greater than (c gradually improve. at 120 in the range of from 140 to 180% ", 150 degrees c / t as the peak of the high activity by properly to enhance surprisingly catalyst is usually active kyushu life becomes shorter as compared to the heat treatment of the present invention, strained facilities a tactile i 111k are both improve the activity stability is improved ml-j l <l such as the above-mentioned o. immediate-ii k of 20 hours treated catalyst 40ppm or air containing d> 70" C, K CO-conversion of 80 to become such a sudden, air volume of the air volume of red that no heat treatment do V as compared with the case of using a catalyst such as about 15 times, yet Fk and the conversion rate is 78% 3 hours after 60 hours even after the lapse of t 1 N ? throat. the untreated catalyst is unchanged after 20 hours, up to about 40% as compared to the decreased stability is extremely high heat treatment effect was shown to be such Pt, and the P-(Lk in the Pak were found in the% K the most effective treatment, the time the processing required for the heat treatment in the catalyst according to q, the temperature, the processing method by ? the Hen#39; biasing ? has not come 41/-stability, in order to impart long-desirable, usually 1 hour or more, and preferably 10 hours or more 5 hours or more, more preferably Ti1 pt-?. Of course cape catalyst noble gold ?" in the case of using the high temperature of the reaction c or more, the temperature is subjected to heat treatment for more straight Seshimeru by stabilizing method as well known as in the present invention V-A 50 and c-so" will be relatively low temperatures, the oxidation reaction of Co with respect to several nm to about a very narrow temperature range 180 degrees C. heat treatment in the atmosphere by the active l, the stability is increased, i will run short by both the fact, firmness is to completely unexpected ? not known conventionally at all. The method ? is a plate-like, wire-like biasing shark Cipt 1Pe, can not be applied to the porous

inorganic carrier allowed to adhere in a highly dispersed state, there is an effect when viewed for a catalyst ? is ideally obtained should be a 1Tr PDK 50ppm atmosphere containing 4-D processing a CO falls below 10ppm H it is possible to Seshimeru O, reeds, even if other 0.1 to 0.3 on a ? cape-process under normal conditions, at the OH ?-months to 10 years of activity over a long period of time, it is possible to maintain such a however, generally commercially available alumina-supported Pt catalyst of the catalyst of the present invention 1j 115 to 117 depending on the Lk / active only does not have 10cl further long period of several tens of minutes ? after use C1111 has only m7) active in a lick by present in the atmosphere, 802 with respect to the poisoning due to the resistance is improved, there is also an effect in accordance with the will to the air supply cleaning method of the present invention by required for 319! noble metal catalyst amount of 20K 1 15 succeeded in reducing ? economically very-large effect. 0 air cleaner according to the present invention actually apply particulate carrier, diameter of several-g-MO, also, even 50 to several hundred to a powder-like carrier coated Metsu O made of heat-resistant fiber woven or nonwoven fabric made. idispersed and supported 4 f, stainless steel, plastic-e allowed to adhere for biasing network it is also possible to ! II has a small pressure loss, the latter method is a method suitable for air cleaning ss ? In addition, used in the motor vehicle exhaust gas measures in the ceramic of the cam K-j by fraud\biasing the a-alumina allowed to adhere, it can be applied as the thickness of the honeycomb wall O D shape 2 to the opening portion r) W t5 j1 fight between 2 and much of the product, is suitably a 16-?-no-sato, processing air amount, the pressure loss from the k also may be selected appropriate ones, in any case, as the carrier, the pressure loss is small, the most ideal amount 06b, Nikki is slightly higher noble metal, there is a disadvantage in addition, these noble metal catalyst is contained in the air, in the mantle 802, etc. by the active CO gas is lowered, the catalyst layer it is wheel rim, air is it is desired to remove. Before entering the catalyst according to the present invention is 60 degrees or more, good activity (1% in the P ID has a meal i is 50 degrees C. or higher It is released from the gas and oil is often a blind 41) air E: 4 nd page weight is up-axis multi-motor vehicle or more. If the room is narrow to D, the other used as shown in i in the case other than winter butterfly is high ambient air temperature, and % D, cooled to about room temperature, it is necessary to release the following examples will be described below. EXAMPLE 1 particle size is 80 to 150 Metsushu specific surface area 54 5, fr active alumina 100Pd0% 0 O, 1JL Zto NssK Osaka was immersed in a solution 500cc, 15 hours with shaking in the s@ Hiroshi K2Co: 2% aqueous solution containing g, formalin Fc9 for 1 at room temperature 5ft was reduced. Thoroughly washed with water, a 50fr 20 hours drying under reduced pressure at 80 degrees C. Sample No. 1), the lay-of-the-line remaining 50f #) D RF i8g after 5 hours drying at 5 hours in air so" at 1c, it was heated at medium. (Sample No.1-B) are both a 35- adhesion amount". Both catalysts, such as shown in Fig. 2, the flow system is 50 ppm-F, 70 degrees C. air feed 0.2, d / a@ of the inflow and outflow of gas air pollution monitoring ? co-APMA carbon monoxide measuring device, -10 (manufactured is measured Im Gold Seisakusho. Both the active and the active ? CO oxidation, which is shown in Figure 3. As is apparent from the figure, after the start of the reaction to the sample conversion rate after 6 hours is 70 percent to 53 further in the # i lowered after 40 hours was reduced to 25%. On the other hand initial O1-B sample conversion rate is high yet time 9516 and 50 songs it after the 88% 64 .phi.1, very the lower furnace activity. Further, in nitrogen, 15 at 150 degrees (1 hours samples treated at sample 1 as compared to the top-of-the-slightly, exhibits excellent activity, poor stability, and ?, // role-woo the same sample showed a decrease In Example 2, the same as in Example 1 in the same manner as .phi, the ?? Kpaa Lz, after allowed to adhere fr? And, 200 degrees C. H2 1000 with \$15 hours was reduced. After 140. degrees C. temperature, H2, to stop the air, 14 degrees C. 20 hours. And B-B (sample 1), No. 2 on the other hand P-t1O j12 50fr attached to D in the same manner as in Kyushu alumina after cooling to room temperature H2 reducing the l-fee to stop, to obtain a sample number 2 (17) co-deposition amount of KP was i7-O are both catalysts, Example 1 and exactly the same manner, the results of measurement of the first 41! ! H. 2-A decrease in activity 4 sample is remarkable, and they sample z 2-B, 5 hours after the start of sheet l constant response is embedded such as time or more activity over the 4 degrees it was stable. Further, in the same manner as the 300 degrees C., to prepare a sample B sample 2-oxime, 2-KL, the same i1f2-c to obtain a sample of 2-D is in the active sa" bar lower GK to the flow rate of air containing Co. .alpha.1, it is assumed that co conversion rate ?-F13 was less than 0%. Example 5 particle size is 50 to 130 Metsushiyu\specific surface area in the l / l 575 l / l-y ? alumina-based tag member 1k of the z o-cj.sub.i 2.0.lst in hydrochloric acid solution was immersed in a 5j after shaking for 8 hours and filtered. The Paa of the Lz sum phase as well as the g6, normally 1: 7240 was reduced with an aqueous solution at room temperature, he was thoroughly washed with water! 80 degrees C. 1 minutes and i1. 12o 11C IIC 150 1170 degrees C., 24 @ C L20 at 9 ? and each temperature of the gas in the 20 hours of heat treatment at. In the same manner as in Example 1, ?-catalyst device for about 20 filled with CC0-Tr1O, air containing ppm experiment by changing the O flow rate. Reaction temperature is 50 ?, 100 ?, 150 ?, the contact time of the N-jh-kai and CO conversion rate relationship with 5 to 7 shown in Fig. The reaction temperature is 45 degrees C. Fig. 5 result ? yang with heat treatment temperature of 80 degrees C., 15G-C, and 200 degrees C., activity is not high by pull-low raw r f f decreases, the reaction temperature range of the present invention is how to i ! ! 1 yen to be heat-treated at a temperature, it can be seen that no effect Next, Fig. 6 in the case of a reaction temperature of 150 degrees C. shows the results of the case of the untreated eyes, is the most active is high (150 degrees C, 200 degrees and the in-cylinder temperature for the (processing activity is reduced almost temperature at 240 degrees C., intermittently stops responding. " That is, the present invention according to the ISO method / Bu in the heat treatment at 0.99 degrees C. - will improve the activity is not seen. Further, in the exhaust gas by this degree of reactive S 140. degrees C., at room temperature for circulating the water many ? format a heat exchanger is used only 80 degrees C. does not decrease, it could not be released into the room, The reaction of the mineral I11 711 100 degrees C in the case of PAG-e: 5, 150 ?, 150 ? the sample heat-treated at a very high-activity. Further, the trend is the reaction temperature at 70 degrees C. as 120. degrees C., did not change at all. Example 41 thickness x 14m, take measures at L3a, and each of the 2Tr + ribbon is filled in the same manner as in example 1 50ppm 7) OO j' d7 air containing Cl Fah spades, but with a degree 250 degrees C. or less reaction f N ? is going to convert the ?, it could not be. 500 degrees C., since the reaction it was 150 degrees C., 40G, "C" C was heat-treated at 500 degrees C. on the active sample 3 "c, was measured for 150 ?, 500 ? is the same as that of course in the case of 400 degrees C., 500 degrees C, process temperature is high, or activity is lowered, S of the sample soil" C was not almost react with 1 evening In Example 5 Example 1 of a 1-B sample in the same manner as in catalyst 800f to the Ilu Wire diameter 0.3 #39;, 20: wire mesh ? Metsushiyu (20 X 20 cps), an epoxy-based adhesive is applied to the 41 y # on the catalyst in the middle of a vibration) adhesive those allowed by o and 80 Lt2o, excluding the atmosphere and heated to 75 degrees C., 2ml / 4III was flowed at IO Ratio Co3-wave 2-containing gas at the same time mixed, CO ppm present as release to the atmosphere, was allowed is 2ppm contains CO was only One week continuously was carried out the operation is released from 2 to v (side 4 ppm! O is included is very good ? being excited active stability. Example 6 diameter 93mm, height 75 mm, wall thickness 0.27 - opening portion (1) is a square, the cordierite-based honeycomb 29--alumina about 20 to adhere the ? LJ-Dtpa Cazac 6 ss 4 2.2% C10, 111Hc was immersed for 24 hours in a solution after s1, H2, 37c1. A marine_melodie_formatisequentiel>Second. aqueous solution of 1000CC that include ID KIT was immersed in an aqueous solution temperature, after 30 minutes the temperature was raised to 1 @ c K reduction was terminated. Adhesion amount of the 25?). It was. 3 months wrinkles ? honeycomb catalyst at 160 degrees C. 24 hours in a hot air after used in the reaction. Air containing CO was 55 ppm, to 80 degrees C., 7111, t51 C11 / L ratio l1k arranged in series in the honeycomb-gas through Release 4j to 2 OOO-? ppi mm Dare even after the lapse of 60 hours from 2 to i, 41) plf. On the other hand 160 ? r process) Li--a N-strained facilities to use, and the same amount v cam 12 required air to an alkenyl group and an ?. Moreover, 10, after the start of the reaction time 1m20.816s " to CO conversion rate was reduced to 501. LI BRIEF DESCRIPTION OF THE DRAWINGS Fig. 1 is the heat treatment temperature and the Pa-alumina catalyst CO oxidation ability, the relationship between force and, obtained by these catalysts in the evaluation of Figure 2 is a flow system for half-reaction apparatus further example, YES at the Qt3, for example, N, (j + 4 N2v, 5 gas cylinder, the mixing unit, 6 is a reactor, the preheating section 7 by running over the cooling unit 9, 8 is the air flow meter, 10 is CO concentration measuring device, it is a catalyst. The third 511 reducing the Pd-O formalin\cs6\alumina catalyst stability, in the case of Fig. 4 hydrogen reduction stability. Fig. 7 fifth to 80 to 300 degrees C, heat treatment? The (1-silica-alumina tactile respectively 45 ?, 100 ?, 150 ?, CO oxidation ability for. Kanebo Co., Ltd. Takashi Mizuguchi applicant--Attorney Attorney! Jy: 1 (c) SAD ('cooperation support page: 6) the reaction tower 21, a boat (prescription) an ?-end-I + # 18 ??? (sec) 6 #39;) force get worse 71 .theta.1 man Akira (1) attachment cost (Machine translation)

Abstract: Source: JP50039689A **Machine translation:** 1, the name of the invention claim 1 low-[Source: Ii! 2, active-touch-@Ry-making method porous inorganic carrier 0@ tuna Lli, Huh was allowed supported surrounding h or salt-hayao PIV temperature than 200 degrees centigrade in the presence of oxygen, a reduction after allowed by a heat treatment at 100 to 180 degrees centigrade and TII garnishes tactile-fashion. The method of making a low-temperature activity 5

Classifications:
International (IPC 8-9): B01D53/34 B01D53/94 B01J23/40 B01J23/56 (Advanced/Invention); B01D53/34 B01D53/94 B01J23/40 B01J23/54 (Core/Invention)
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Family:

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JP50039689 A2	19750411	JP19730091456	19730815

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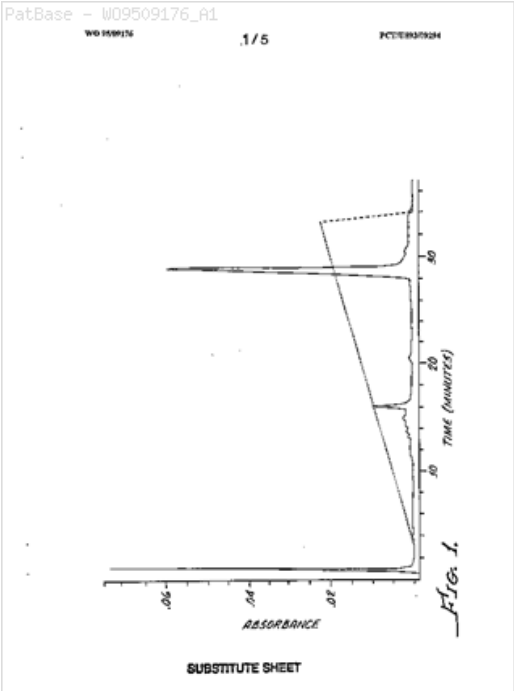
31) Family number: 8508851 (WO9509176A1)

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Title: BIOPOLYMER SYNTHESIS UTILIZING SURFACE ACTIVATED, ORGANIC POLYMERS

Abstract: Disclosed herein are surface activated, organic polymers useful for biopolymer synthesis. Most preferably, aminated polypropylene is used for the synthesis of oligonucleotides thereto, and these devices are most preferably utilized for genetic analysis of patient samples.

Classifications:
International (IPC 8-9): C07H21/00 C07K1/04 C08F8/00 C08F8/32 C12Q1/68 C12Q1/6827 C12Q1/6834 (Advanced/Invention); C07H21/00 C07K1/00 C08F8/00 C12Q1/68 (Core/Invention)
International (IPC 1-7): C07H21/00 C07H3/00 C07K1/04 C08F8/30 C08F8/32 C08J3/28 C08J7/12 C12Q1/68 G01N33/68
CPC: C08F8/30 C07H21/00 C08F8/32 C12Q1/6827 C12Q1/6834 C07K1/04 C12Q1/68
European: C07H21/00 C08F8/00 C08F8/32 C12Q1/68B10 C12Q1/68B6



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AU199352944 A1	19950418	AU19930052944	19930928
AU671688 B2	19960905	AU19930052944	19930928
CA2167589 AA	19960118	CA19932167589	19930928
DE69328693 D1	20000621	DE19936028693	19930928
DE69328693 T2	20000831	DE19936028693T	19930928
EP0721458 A1	19960717	EP19930923172	19930928

EP0721458 B1	20000517	EP19930923172	19930928
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Probable Assignee: BECKMAN COULTER INC

Assignee(s): (std): BECKMAN COULTER INC ; BECKMAN INSTRUMENTS INC

Assignee(s): COASSIN PETER J ; MATSON ROBERT S ; RAMPAL JANG B

Inventor(s): (std): COASSIN J ; COASSIN PETER J ; MATSON ROBERT S ; MATSON S ; RAMPAL JANG B ; RAMPAL B

Inventor(s): ROBERT S MATSON ; PETER J COASSIN ; JANG B RAMPAL

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; MACRAE AND CO

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