

Search history

Search FT=(GEOELECTRIC~ AND PCB~ AND DETECTION~) (Results 0)

1:

Search geoelectric exploration (Results 0)

2:

Search geoelectric (Results 503)

3:

Search 3 and exploration (Results 125)

4:

Search 4 and PCB (Results 0)

5:

Search 4 and waste (Results 3)

6:

Search [SP]: method and apparatus for rapid tomographic measurements of the electrical conductivity distribution of a sample a method and apparatus for the rapid tomographic measurement of conductivity distribution in a sample in which current excitations or voltage excitation is applied to the sample via electrodes or the like and potential differences or magnetic field strengths association with those excitation fields are measured and analyzed, e.g. by a fourier analysis. (Results 85)

Search 7 and subsoil (Results 3)

8:

Search electrical AND resistivity AND tomography (Results 1246)

9:

Search 9 and subsoil (Results 11)

10:

Search 10 and waste (Results 6)

11:

Search 9 and PCB (Results 54)

12:

Search 9 (Results 1246)

13:

Search 9 and exploration (Results 180)

14:

Search 14 and waste (Results 34)

15:

Search 15 and subsoil (Results 2)

16:

Search 15 (Results 34)

17:

Title: METHOD AND APPARATUS FOR THE DETECTION OF NEUTRINOS AND USE OF NEUTRINO DETECTOR

Abstract: Source: US4968475A Neutrinos are detected by allowing them to scatter on nuclei contained in a detector and by detecting the recoil of the nuclei. Because the probability of a neutrino being scattered is very low the probability is very high that a neutrino will only cause recoil of a single nucleus. On the other hand background radiation is likely to cause the recoil of a large number of electrons and/or nuclei so that neutrino scattering can be detected by distinguishing between the recoil of a single nucleus and the simultaneous recoil of a plurality of electrons/nuclei. In one form of the detector the nuclei are present as minute superconducting metal grains which are held in the superconducting state. At low temperatures the grains have a very low specific heat and the scattering of a neutrino will cause a single grain to heat up and change from the superconducting to the normal conducting state. This change will result in a perturbation of an applied magnetic field, as a result of the Meissner effect, and the perturbation of the magnetic field can be detected, for example as an e.m.f. induced in a detector loop. Several different superconducting arrangements are described. A semiconductor arrangement for detecting nuclear recoil is also described. The neutrino detector can be used, among other things, for monitoring reactor activity and for prospecting for subterranean deposits of radioactive elements, minerals found in association with these elements, and oil and gas.

Classifications:

International (IPC 8-9): G01T1/16 G01T3/00 (Advanced/Invention);
G01T1/00 G01T3/00 (Core/Invention)

International (IPC 1-7): G01T1/16 G01T3/00 G21C17/00

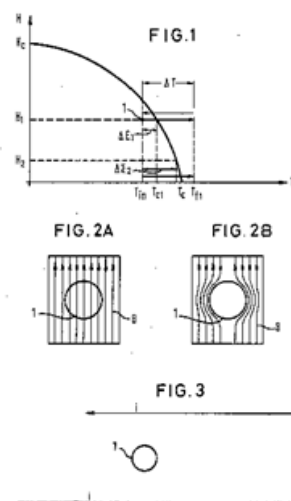
CPC: Y10S376/913 G01T1/1606

European: G01T1/16F

US: 376/153 376/913

PatBase - US4968475_A

U.S. Patent Nov. 6, 1990 Sheet 1 of 7 4,968,475



Family:

Publication number	Publication date	Application number	Application date
DE3280399 D1	19920527	DE19823280399	19820809
EP0102398 A2	19840314	EP19820107203	19820809
EP0102398 A3	19860319	EP19820107203	19820809
EP0102398 B1	19920422	EP19820107203	19820809
JP59048671 A2	19840319	JP19830144858	19830808
US4968475 A	19901106	US19860821862	19860121

Priority:

EP19820107203 19820809 US19820427100 19820929

Probable Assignee: DRUKIER ANDRZEJ KAMIL

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Inventor(s): (std): ANDORETSUTSUE KAMIRU DOURUKEA ; DRUKIER ANDRZEJ KAMIL ; STODOLSKY LEO ; DRUKIER ANDRZEJ K ; REO SHIYUTOODORUSUKII

Inventor(s): STODOLSKY LEO W 8000 MUENCHEN 60 DE ; DRUKIER ANDRZEJ KAMIL KOEBENHAVN DK

Designated states: DE FR GB

Title: APPARATUS AND METHOD FOR IMAGING OBJECTS WITH WAVEFIELDS

Abstract: Source: US2002131551A This invention describes a method for increasing the speed of the parabolic marching method by about a factor of 256. This increase in speed can be used to accomplish a number of important objectives. Firstly, the speed can be used to collect data to form true 3-D images or 3-D assembled from 2-D slices. Speed allows larger images to be made. Secondly, the frequency of operation can be increased to 5 MHz to match the operating frequency of reflection **tomography**. This allows the improved imaging of speed of sound which in turn is used to correct errors in focusing delays in reflection **tomography** imaging. This allows reflection **tomography** to reach or closely approach its theoretical spatial resolution of $\frac{1}{2}$ to $\frac{3}{4}$ wave lengths. A third benefit of increasing the operating frequency of inverse scattering to 5 MHz is the improved out of topographic plane spatial resolution. This improves the ability to detect small lesions. It also allow the use of small transducers and narrower beams so that slices can be made closer to the chest wall.

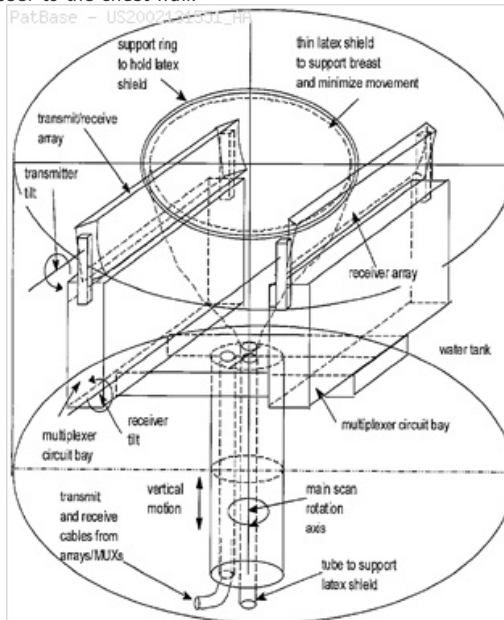
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International (IPC 1-7): A61B6/04 A61B6/63 A61B8/00 A61B8/14 G01N23/00 G01N23/04 G01N23/201 G01V1/00 G06T5/00 **CPC:** Y10S378/901 G01S15/8909 A61B8/485 G06T2211/428 A61B5/05 A61B5/0507 A61B5/0536 A61B8/00 A61B8/463 A61B8/4281 G06T11/006 A61B5/4312 A61B5/7257 A61B8/0825 A61B8/14 A61B8/15 A61B8/406 A61B8/4483 G01H3/125 G01N22/00 G01N23/2055 G01S13/103 G01S13/89 G01S15/04 G01S15/88 G01S15/89 G01S15/8913 G01S15/8929 G01S15/8938 G01S15/895 G01S15/8977 G01S15/96 G01V1/003 G06T2211/408 G06T2211/424 G06T11/001 A61B8/4209

European: A61B5/05 A61B5/05M A61B5/43F2 A61B5/72K10B A61B8/00 A61B8/08F A61B8/14 A61B8/15 A61B8/40D A61B8/42B A61B8/44R A61B8/46B4 G01H3/12B G01N22/00 G01N23/205C G01S13/89 G01S15/89D1 G01S15/89D1B G01S15/89D1G G01S15/89D2B G01S15/89D3 G01S15/89D6 G01V1/00B G06T11/00C G06T11/00T3 K61B5/05 K61B5/053H K61B8/08F K61B8/42F2 S01S13/10D S01S15/04 S01S15/88 S01S15/89 S01S15/89D1B S01S15/89D6 S01S15/96 S01S7/285F S06T211/408 S06T211/424 S06T211/428

US: 181/101 364/413.13 364/413.14 364/421 378/18 378/37 378/37S 378/4 378/62 378/62P 378/8 378/87 378/90 378/901 378/96 378/98 378/99 600/309 600/407 600/407P 600/407S 600/425 600/437 600/437P 600/442 600/443 600/448 600/459 600/459P 702/1

**Family:**

Publication number	Publication date	Application number	Application date
AU199741694 A1	19980414	AU19970041694	19970828
US2002131551 AA	20020919	US20010024035	20011217
US2004034307 AA	20040219	US20030615569	20030707
US2006084859 AA	20060420	US20050223084	20050909
US2006287596 AA	20061221	US20060436989	20060517
US2006293597 AA	20061228	US20060437001	20060517
US2007282200 AA	20071206	US20050222541	20050909
US5588032 A	19961224	US19920961768	19921014
US6005916 A	19991221	US19970972101	19971117
US6587540 BA	20030701	US19990471106	19991221
US6636584 BB	20031021	US20010024035	20011217
US7570742 BB	20090804	US20030615569	20030707
US7684846 BB	20100323	US20050222541	20050909
US7841982 BB	20101130	US20050223084	20050909
WO9812667 A2	19980326	WO1997US15226	19970828
WO9812667 A3	19980625	WO1997US15226	19970828

Priority:

US19920961768	19921014	US19950486971	19950622	US19970972101	19971231
US19970972101	19971117	US19990471106	19991221	US19960706205	19960829
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US20060436989	20060517	US20030615569	20030707	US20060437001	20060517
US20010024035	20011217				

Probable Assignee: TECHNISCAN INC

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Inventor(s): CHRISTENSEN DOUGLAS ; JOHNSON STEVEN ; BERGGREN MICHAEL ; BORUP DAVID ; BORUP DAVID

Agent(s): THORPE NORTH AND WESTERN LLP ; GARRON M HOBSON

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG UZ VN ZW

Title: METHODS AND SYSTEMS FOR SIMULATION-ENHANCED FRACTURE DETECTIONS IN SEDIMENTARY BASINS

Abstract: Source: US2002013687A A three-dimensional, geologic basin simulator for predicting natural resource location and characteristics is disclosed. The simulator integrates seismic inversion techniques with other data to predict fracture location and characteristics. The invention's 3-D finite element basin reaction, transport, mechanical simulator includes a rock rheology that integrates continuous deformation (poroelastic/viscoplastic) with fracture, fault, gouge, and pressure solution. Mechanical processes are used to coevolve deformation with multi-phase flow, petroleum generation, mineral reactions, and heat transfer to predict the location and producibility of fracture sweetspots. The simulator uses these physico-chemical predictions to integrate well log, surface, and core data with the otherwise incomplete seismic data. The simulator delineates the effects of regional tectonics, petroleum-derived overpressure, and salt tectonics and constructs maps of high-grading zones of fracture producibility.

Classifications:

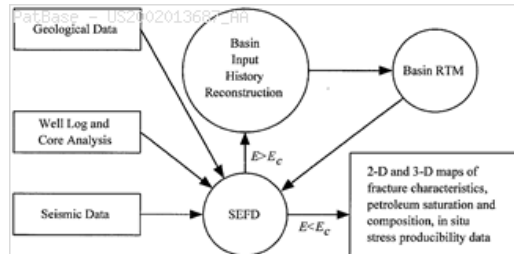
International (IPC 8-9): G01V1/28 G01V11/00 (Advanced/Invention); G01V11/00 (Core/Invention)

International (IPC 1-7): G01V1/28 G06F17/10 G06G7/48

CPC: G01V2210/661 E21B41/0064 G01V1/282 G01V11/00 Y02C10/14

European: E21B41/00M2C G01V1/28B G01V11/00 Y02C10/14

US: 703/10 703/10P 703/2



Family:

Publication number	Publication date	Application number	Application date
AU2001251019 AA	20011008	AU20010251019	20010327
AU200151019 A1	20011008	AU20010051019	20010327
AU200151019 A5	20011008	AU20010051019	20010327
AU2002239619 AA	20020618	AU20020239619	20011207
US2002013687 AA	20020131	US20010818752	20010327
US2002120429 AA	20020829	US20010017829	20011207
WO0173476 A1	20011004	WO2001US09760	20010327
WO0247011 A1	20020613	WO2001US48589	20011207

Priority:

US20000192190P 20000327 US20000254433P 20001208 WO2001US09760 20010327
US20010818752 20010327 US20010017829 20011207 WO2001US48589 20011207

Probable Assignee: ORTOLEVA PETER J

Assignee(s): (std): ORTOLEVA PETER J ; PETER J ORTOLEVA

Inventor(s): (std): ORTOLEVA PETER J

Inventor(s): PETER J ORTOLEVA

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

Title: Nonlinear electroseismic **exploration**

Abstract: Source: US2002181326A A method for seismic **exploration** using nonlinear conversions between electromagnetic and seismic energy, with particular attention to the electromagnetic source waveform used. According to the invention, seismic returns from a source waveform are correlated with a reference waveform, with both waveforms custom designed to minimize both correlation side lobes and interference from linear electroseismic effects. A waveform element is selected which may be sequenced by a binary or similar digital code embodying the desired custom design to generate an input sweep with the needed depth penetration and noise suppression. Correlation of the seismic response with the reference waveform in a data processing step mathematically aggregates the seismic response from the input sweep into a single wavelet. Preferred binary digital codes include prescribed variations of maximal length shift-register sequences. Also, an apparatus for generating the desired waveforms.

Classifications:

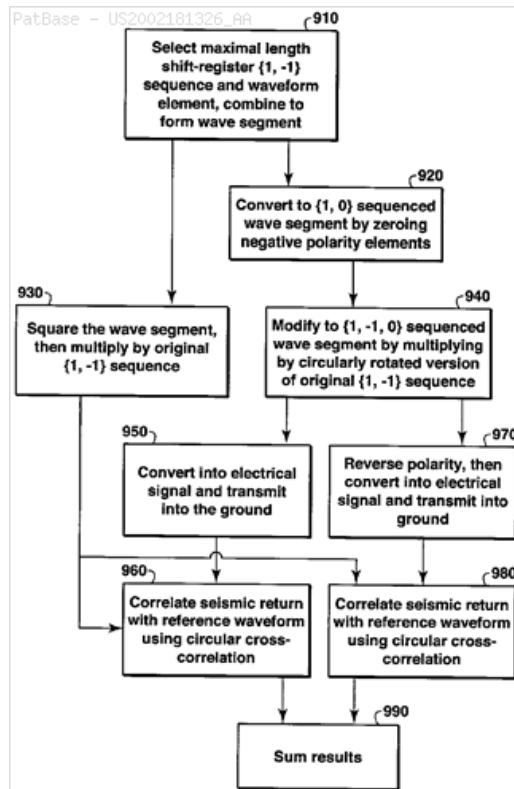
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International (IPC 1-7): G01V1/00 G01V1/40 G01V11/00 G01V3/00 G01V3/02 G01V3/38 H03B21/01

CPC: G01V11/007 G01V1/003 G01V1/02 G01V3/082

European: G01V1/00B G01V1/02 G01V11/00C G01V3/08C

US: 181/106 181/122 324/323 324/354 324/359 367/14 367/14P 702/14



Family:

Publication number	Publication date	Application number	Application date
AU2002258958 AA	20021118	AU20020258958	20020423
AU2002258958 BB	20070614	AU20020258958	20020423
AU2002258958 BH	20070712	AU20020258958	20020423
BRPI0209418 A	20050201	BR2002PI09418	20020423
CA2446278 AA	20031103	CA20022446278	20020423
CN1254694 C	20060503	CN20028011122	20020423
CN1556932 A	20041222	CN20028011122	20020423
EA005193 B1	20041230	EA20030001205	20020423
EA200301205 A1	20040429	EA20030001205	20020423
EP1393095 A1	20040303	EP20020728937	20020423
MY126229 A	20060929	MY20020001562	20020429
NO20034882 A	20031217	NO20030004882	20031031
NO20034882 A0	20031031	NO20030004882	20031031
US2002181326 AA	20021205	US20020127277	20020422
US6664788 BB	20031216	US20020127277	20020422
USRE41829 E	20101019	US20040912769	20040805
WO20091020 A1	20021114	WO2002US12815	20020423
WO20091020 C1	20040129	WO2002US12815	20020423

Priority:

US20010288059P 20010502 US20020127277 20020422 WO2002US12815 20020423
US20040912769 20040805

Probable Assignee: EXXONMOBIL UPSTREAM RESEARCH CO

Assignee(s): (std): EXXONMOBIL UPSTREAM RESEARCH COMPANY ; EXXONMOBILE UPSTREAM RES CO ; EXXONMOBILE UPSTREAM RES COMPA ; THOMPSON ARTHUR H ; EXXONMOBILE UPSTREAM RESEARCH CO ; EXXONMOBIL UPSTREAM RES CO

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Inventor(s): THOMPSON ARTHUR H DAVIS CLINT A HALSEY THOMAS C HO ; ARTHUR H THOMPSON ; CLINT A DAVIS ; ROBERT A RASCHKE ; SCOTT C HORNBOSTEL ; THOMAS C HALSEY

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

LTD; BORDEN LADNER GERVAIS 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
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SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Title: Borehole induction coil transmitter

Abstract: Source: US6489772B A borehole induction coil transmitter which is a part of a cross-borehole electromagnetic field system that is used for underground imaging applications. The transmitter consists of four major parts: 1) a wound ferrite or mu-metal core, 2) an array of tuning capacitors, 3) a current driver circuit board, and 4) a flux monitor. The core is wound with several hundred turns of wire and connected in series with the capacitor array, to produce a tuned coil. This tuned coil uses internal circuitry to generate sinusoidal signals that are transmitted through the earth to a receiver coil in another borehole. The transmitter can operate at frequencies from 1-200 kHz and supplies sufficient power to permit the field system to operate in boreholes separated by up to 400 meters.

Classifications:

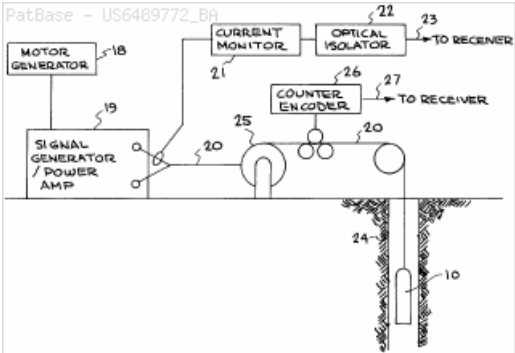
International (IPC 8-9): G01V3/28 (Advanced/Invention);
G01V3/18 (Core/Invention)

International (IPC 1-7): G01V3/18

CPC: G01V3/28

European: G01V3/28

US: 324/339



Family:

Publication number	Publication date	Application number	Application date
US6489772 BA	20021203	US19950376725	19950123

Priority:

US19950376725 19950123

Probable Assignee: LAWRENCE LIVERMORE NATIONAL SECURITY LLC

Assignee(s): (std): UNIV CALIFORNIA

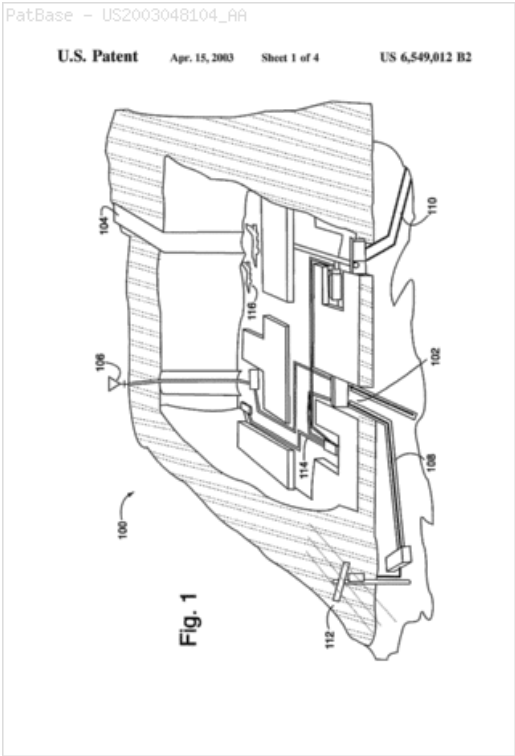
Assignee(s): US DEPARTMENT OF ENERGY ; US DEPARTMENT OF ENERGY PO BOX ; LAWRENCE LIVERMORE NATIONAL SECURITY LLC ; THE REGENTS OF THE UNIVERSITY OF CALIFORNIA ; UNIV

Inventor(s): (std): WILT MICHAEL J ; HOLLADAY GALE

Title: Radio system for characterizing and outlining underground industrial developments and facilities

Abstract: Source: US2003048104A Most mines and underground facilities employ standardized construction techniques and materials. Such also cannot avoid having some above ground openings to receive utilities, fresh air, supplies, etc. Those or other surface openings are also universally used to discharge ground water, **wastes**, and other materials. Typical underground facilities have abundant **electrical** wiring and power demands, both of which can be detected at the surface. Levees with leakage pathways also form **electrical** conductors. When properly illuminated with remotely generated electromagnetic (EM) radiation, many of these features will "glow" or reradiate the radio energy in an electronic signature unique to the underground facility. Synchronized EM-gradiometer transponders are situated nearby on the ground surface to collect and analyze the "glow". Alternative transmitting devices further includes ways to generate the illumination, and computers for characterizing the return signatures.

Classifications:
International (IPC 8-9): G01V3/12 (Advanced/Invention);
G01S13/88 (Advanced/Non-invention);
G01V3/12 (Core/Invention);
G01S13/00 (Core/Non-invention)
International (IPC 1-7): G01S13/00 G01V3/08 G01V3/10 G01V3/12
G01V3/17 G01V3/38
CPC: G01S13/885 G01V3/12
European: G01V3/12 S01S13/88D
US: 324/329 324/334 324/337 324/344 342/459



Family:

Publication number	Publication date	Application number	Application date
US2003048104 AA	20030313	US20010904902	20010712
US6549012 BB	20030415	US20010904902	20010712

Priority:
US20010296401P 20010607 US20010904902 20010712
Probable Assignee: STOLARCZYK LARRY G
Assignee(s): (std): STOLARCZYK LARRY G
Assignee(s): AIR FORCE UNITED STATES
Inventor(s): (std): STOLARCZYK LARRY G

Title: FLEXIBLE IMAGER AND DIGITAL IMAGING METHOD

Abstract: Source: US2004016886A A flexible imager, for imaging a subject illuminated by incident radiation, includes a flexible substrate, a photosensor array disposed on the flexible substrate, and a scintillator. The scintillator is disposed so as to receive and absorb the incident radiation, is configured to convert the incident radiation to optical photons, and is optically coupled to the photosensor array. The photosensor array is configured to receive the optical photons and to generate an **electrical** signal corresponding to the optical photons. A digital imaging method for imaging subject includes conforming flexible digital imager to subject, the subject being positioned between flexible digital imager and a radiation source. The method further includes activating radiation source to expose the subject to radiation and collecting an image with the flexible digital imager.

Classifications:

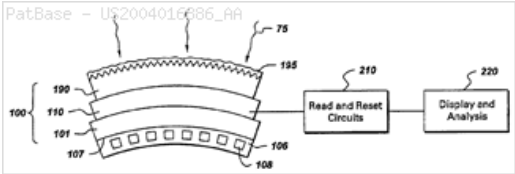
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International (IPC 1-7): A61B6/03 G01N23/04 G01T1/161 G01T1/20 G01T1/24 G01T1/29 G03B42/02 H01L27/14 H01L27/146 H04N5/32

CPC: G01T1/2018 H01L27/14601

European: G01T1/20P H01L27/146A

US: 250/363.02 250/363.020S 250/370.11 250/370.110P



Family:

Publication number	Publication date	Application number	Application date
DE10333821 A1	20040212	DE20031033821	20030724
JP2004064087 A2	20040226	JP20030278693	20030724
JP4524082 B2	20100811	JP20030278693	20030724
US2004016886 AA	20040129	US20020064549	20020725
US7078702 BB	20060718	US20020064549	20020725

Priority:

US20020064549 20020725

Probable Assignee: GENERAL ELECTRIC CO

Assignee(s): (std): GEN ELECTRIC

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

Inventor(s): (std): BUENO CLIFFORD ; HUANG JIUNN RU JEFFREY ; RINGERMACHER HARRY ISRAEL ; PFOH ARMIN HORST

Agent(s): PENNY A; PATRICK K

Title: METHOD AND APPARATUS FOR RAPID TOMOGRAPHIC MEASUREMENTS OF THE **ELECTRICAL** CONDUCTIVITY DISTRIBUTION OF A SAMPLE

Abstract: Source: US2004201380A A method and apparatus for the rapid tomographic measurement of conductivity distribution in a sample in which current excitations or voltage excitation is applied to the sample via electrodes or the like and potential differences or magnetic field strengths association with those excitation fields are measured and analyzed, e.g. by a Fourier analysis.

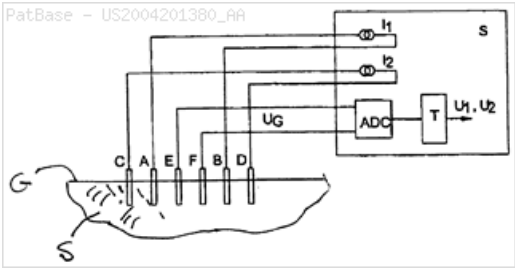
Classifications:

International (IPC 8-9): G01N27/20 G01V3/06 (Advanced/Invention);
G01N27/20 G01V3/02 (Core/Invention)
International (IPC 1-7): G01N27/20 G01N33/24 G01V3/04 G01V3/06
G01V3/12 G01V3/4 G01V3/8

CPC: G01V3/06

European: G01N27/20 G01V3/06

US: 324/303 324/318 324/334 324/357 600/407 600/547



Family:

Publication number	Publication date	Application number	Application date
AT404890 E	20080815	AT20030017321T	20030731
DE10238824 A1	20040311	DE20021038824	20020823
DE50310307 D1	20080925	DE20035010307	20030731
EP1391751 A2	20040225	EP20030017321	20030731
EP1391751 A3	20040407	EP20030017321	20030731
EP1391751 B1	20080813	EP20030017321	20030731
US2004201380 AA	20041014	US20030647095	20030822
US6943553 BB	20050913	US20030647095	20030822

Priority:

DE20021038824 20020823

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Agent(s): DUBNO HERBERT; HERBERT

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Title: Nonlinear electroseismic **exploration.**

Abstract: Source: OA13135A [Source: Claim 1] *** WARNING: OCR DATA – DESCRIPTION AND CLAIMS MAY OVERLAP *** Please email the Publication Number to Patbase@rws.com of any affected text for review *** WE CLAIM: <L3135- -34- 1. A method for electroseismic prospecting of a subterranean formation, said method comprising the steps of: (a) selecting a source waveform and a reference waveform, said source and reference waveforms being selected (i) to reduce amplitudes of side lobes produced by correlation of the square of the source waveform with the reference waveform, and (ii) to reduce interference between said correlation and a correlation of the source waveform with the reference waveform; (b) generating the source waveform as an **electrical** signal and transmitting it into the subterranean formation; (c) detecting and recording seismic signals resulting from conversion of the **electrical** energy into seismic energy in the subterranean formation; and (d) correlating the recorded seismic signals with the reference waveform.

2. The method of claim 1, wherein said source waveform and said reference waveform are constructed from a single element, said element consisting of a single full cycle of a preselected periodic waveform, said elements being pieced together with polarities sequentially specified by a preselected digital code, said periodic waveform having a frequency predetermined to give desired depth penetration of said subterranean formation. 3. The method of claim 2, wherein the waveform element is a single cycle of a 60 Hz sinusoid. 4. The method of claim 2, wherein the waveform element is constructed from selected phases of a three-phase power supply to have a desired frequency less than or equal to 60 Hz. 5. The method of claim 2, wherein said digital code is a maximal length shift-register {1,-1} sequence with the resulting source waveform modified to a {1,0} sequence by zeroing the negative polarity elements; said reference waveform is the square of the source waveform before the negative polarity elements are zeroed, said squared wave then undergoing polarity reversal of segments corresponding to "-1" terms in said maximal length shift-register sequence; and said correlation is circular correlation. 6. The method of claim 5, wherein said interference reduction is accomplished by constructing a second source waveform by reversing the polarity of the source waveform selected in step (a), repeating steps (b) - (d) with said second source waveform, and then adding together the correlated seismic signals resulting from the two source waveforms. 7. The method of claim 5, wherein said interference reduction is accomplished by replacing some pre-selected "1" terms in said {1,0} source wave coding sequence with "-1" terms, said replacement being designed to substantially maximize the time separation between said correlation of the source waveform and said correlation of the square of the source waveform. 8. The method of claim 7, wherein which "1" terms to replace with -1 are determined by multiplying said {1,0} sequence by a circularly rotated version of said maximal length shift-register {1,-1} sequence, thereby generating the desired {1,-1,0} code. 9. The method of claim 5, wherein the degree of said maximal length shift-register sequence is sufficiently large to reduce said side lobe amplitudes to a predetermined level. 10. The method of claim 5, wherein said transmitting of said source waveform into said subterranean formation is repeated a sufficient number of times to reduce loss of information due to said circular correlation to a predetermined level. 11. The method of claim 7, wherein said interference reduction is further accomplished by constructing a second source waveform by reversing the polarity of the source waveform selected in step (a), repeating steps (b) - (d) with said second source waveform, and then adding together the correlated seismic signals resulting from the two source waveforms. 12. The method of claim 1, wherein said reference waveform is bandpass filtered to conform to the expected frequency content of said recorded seismic signals. 13. The method of claim 1, further comprising the following additional step: (e) ordering the seismic signals from the subterranean formation by amplitude, and interpreting any substantially larger amplitudes to represent hydrocarbons. 14. A method for electroseismic prospecting of a subterranean formation, said method comprising the steps of: (a) selecting a periodic waveform; (b) generating said waveform as an **electrical** signal and transmitting it into said subterranean formation at a preselected frequency; (c) detecting and recording seismic signals resulting from conversion of the **electrical** energy into seismic energy in said subterranean formation; (d) Fourier transforming said seismic signals from the time domain to the frequency domain; (e) collecting the transformed data at twice the signal frequency, and extracting amplitude and phase information; (f) repeating steps (b) - (e) for a plurality of different signal frequencies; and (g) inverse Fourier transforming the extracted amplitude and phase information of step (e) back to the time domain. 15. An **electrical** signal for use in electroseismic prospecting of a subterranean formation, said signal having a waveform constructed from a single element, said element consisting of a single full cycle of a preselected periodic waveform, said periodic waveform having a frequency predetermined to give desired depth penetration of said subterranean formation, said elements being pieced together with polarities sequentially specified by a preselected digital code, said digital code being chosen to substantially minimize side lobes resulting from correlation of the square of the signal waveform with a reference waveform, said reference waveform also being chosen to substantially minimize said side lobes, said digital code and said reference waveform also being chosen to reduce interference with said correlation from a correlation of the signal waveform with said reference waveform. 16. The **electrical** signal of claim 15, wherein said waveform element is a single cycle of a 60 Hz sinusoid. 17. The **electrical** signal of claim 15, wherein said waveform element is constructed from selected phases of a three-phase power supply to have a desired frequency less than or equal to 60 Hz. 18. The **electrical** signal of claim 15, wherein said digital code is a maximal length shift-register {1,-1} sequence with the resulting signal waveform modified such that the negative polarity elements are zeroed, said reference waveform is the square of the signal waveform before the negative polarity elements are zeroed, said squared wave then undergoing polarity reversal of squared elements corresponding to "-1" terms in said maximal length shift register sequence to yield said reference waveform, and said correlation is circular correlation. 19. The **electrical** signal of claim 15, wherein said digital code is a {1,-1,0} sequence derived from a maximal length shift-register {1,-1} sequence by first modifying said {1,-1} sequence to replace all "M" terms with 0, then modifying the resulting {1,0} sequence to replace some preselected "1" terms with -1, said replacement of "1" terms with -1 being determined so as to reduce said interference by substantially maximizing the resulting time separation between the correlations of the signal waveform and of the square of the signal waveform with said reference waveform, said reference waveform being constructed by repeating said element the same number of cycles as in said signal waveform, then squaring the resulting waveform, then reversing the polarity of those squared elements corresponding to "-1" terms in said {1,-1} sequence; and said correlation is circular correlation. 20. The **electrical** signal of claim 19, wherein the replacement of "1" terms with -1 is accomplished by multiplying said {1,-1,0} sequence term-by-term by a circularly rotated version of said {1,-1} maximal length shift-register sequence. 21. The **electrical** signal of claim 18, wherein the degree of said maximal length shift-register sequence is sufficiently large to reduce said side lobe amplitudes to a predetermined level, and said reference waveform is modified by subtracting any low frequency components, including DC. 22. An electric signal generator for generating waveforms for use as source signals to be injected into the ground in electroseismic prospecting for hydrocarbons, comprising: (a) a signal generator adapted to take AC input and convert it to a preselected output waveform suitable for electroseismic prospecting, said generator having a plurality of switches to shape said output waveform and at least one transformer to control the voltage of said output waveform; (b) a controller means having a computer and being connected to and controlling said switches and being connected to and monitoring said AC input, said computer being programmable to cause said switches to select phase and voltage levels from said AC input to produce said preselected output waveform and a corresponding reference waveform; and (c) an interface means connected to said controller means and having terminals for connection to a seismic data acquisition system, said interface means adapted to (1) synchronize the start of seismic data acquisition with the start of the waveform generated by said signal generator, and (2) send said reference waveform to the seismic data acquisition system for use in data processing. 23. An electric signal generator for generating waveforms for use as source signals to be injected into the ground in electroseismic prospecting for hydrocarbons, said generator having a positive output terminal, a negative output terminal and a common output terminal, comprising: (a) three transformers, each having a primary winding and a secondary winding, said primary windings having terminals for connection to, respectively, the three phases of a three-phase AC power source, said secondary windings each having two ends and a center tap; (b) six controllable switching means, each switching means having one input and two output terminals, each switching means being connected at its input terminal to a different end of the three secondary windings, one output terminal of each switching means being connected together and to said positive generator output terminal, the other output terminal of each switching means being connected together and to said negative generator output terminal, and said common output terminal of the generator being connected to the center taps of the three secondary windings; (c) a controller means connected to each of the six switching means, said controller means having computer means sending signal voltages to each of said switching means causing each output terminal of said switching means to be connected or not to the input terminal of said switching means according to said signal generated by said computing means, said computing means being programmable to define a desired waveform and a processing reference waveform, said controller means being also connected to said primary winding terminals with said computing means

monitoring such input information to select phase and voltage levels needed to produce the desired waveform; and (d) an interface means connected to said controller means and having terminals for connection to a seismic data acquisition system, said interface e 1 3135 -40- means adapted to (1) synchronize the start of seismic data acquisition with the start of the waveform generated by said signal generator, and (2) send said processing reference waveform to the seismic data acquisition system for use in later data processing. 24. A method for electroseismic delineation of a subterranean petroleum-bearing formation comprising the steps of: (a) selecting a source waveform and a reference waveform, said source and reference waveforms being selected (i) to reduce amplitudes of side lobes produced by correlation of the square of the source waveform with the reference waveform, and (ii) to reduce interference between said correlation and a correlation of the source waveform with the reference waveform; (b) generating the source waveform as an **electrical** signal and transmitting it through at least two electrodes into the subterranean formation; (c) detecting with one or more seismic receivers and recording seismic signals resulting from conversion of the **electrical** energy into seismic energy in the subterranean formation; and (d) correlating the recorded seismic signals with the reference waveform. 25. The method of claim 24, wherein at least one electrode is located in a borehole penetrating the surface in the vicinity of said subterranean formation. 26. The method of claim 24, wherein at least one of said seismic receivers is located in a borehole penetrating the surface in the vicinity of said subterranean formation. 27. The method of claim 24, wherein at least one electrode and at least one seismic receiver are located in a single borehole penetrating the surface in the vicinity of said subterranean formation. I O I 00 • -41- 28. The method of claim 24, wherein at least one electrode is located in one borehole and at least one receiver is located in a second borehole, both boreholes penetrating the surface in the vicinity of said subterranean formation. 29. A method of producing hydrocarbons from a subterranean formation comprising steps of: (a) selecting a source waveform and a reference waveform, said source and reference waveforms being selected (i) to reduce amplitudes of side lobes produced by correlation of the square of the source waveform with the reference waveform, and (ii) to reduce interference between said correlation and a correlation of the source waveform with the reference waveform; (b) generating the source waveform as an **electrical** signal and transmitting it into the subterranean formation; (c) detecting and recording seismic signals resulting from conversion of the **electrical** energy into seismic energy in the subterranean formation; (d) correlating the recorded seismic signals with the reference waveform; (e) using the information from step (d) to assess the commercial hydrocarbon potential of the subterranean formation; and (f) producing any hydrocarbons identified in step (e).

Classifications:

International (IPC 8-9): G01V3/02 G01V3/38

H03B21/01 (Advanced/Invention);

G01V1/00 (Core/Invention)

CPC: G01V3/082

European: G01V3/08C

1 3135 .

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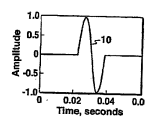


FIG. 1A

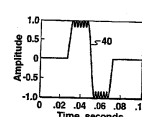


FIG. 2A

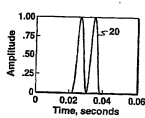


FIG. 1B

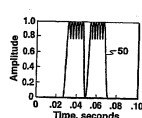


FIG. 2B

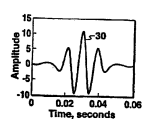


FIG. 1C

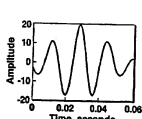


FIG. 2C

Family:

Publication number	Publication date	Application number	Application date
OA13135 A	20061213	OA20031000280	20020423

Priority:

US20010288058P 20010502

Probable Assignee: EXXONMOBIL UPSTREAM RES CO

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Assignee(s): EXXONMOBIL UPSTREAM RESEARCH COMPANY

Inventor(s): (std): DAVIS CLINT A ; HALSEY THOMAS C ; HORNBOSTEL SCOTT C ; RASCHKE ROBERT A ; THOMPSON ARTHUR H

Inventor(s): ARTHUR H THOMPSON ; CLINT A DAVIS ; ROBERT A RASCHKE ; SCOTT C HORNBOSTEL ; THOMAS C HALSEY

Title: RADIATION ARRANGEMENT

Abstract: The invention relates in general level to radiation transference techniques as applied for utilisation of material handling. The invention relates to a radiation source arrangement comprising a path of radiation transference, or an improved path of radiation transference, which path comprises a turbine scanner or an improved turbine scanner. The invention also concerns a target material suitable for vaporization and/or ablation. The invention concerns an improved turbine scanner. The invention concerns also to a vacuum vaporization/ablation arrangement that has a radiation source arrangement according to invention. The invention concerns also a target material unit, to be used in coating and/or manufacturing target material.

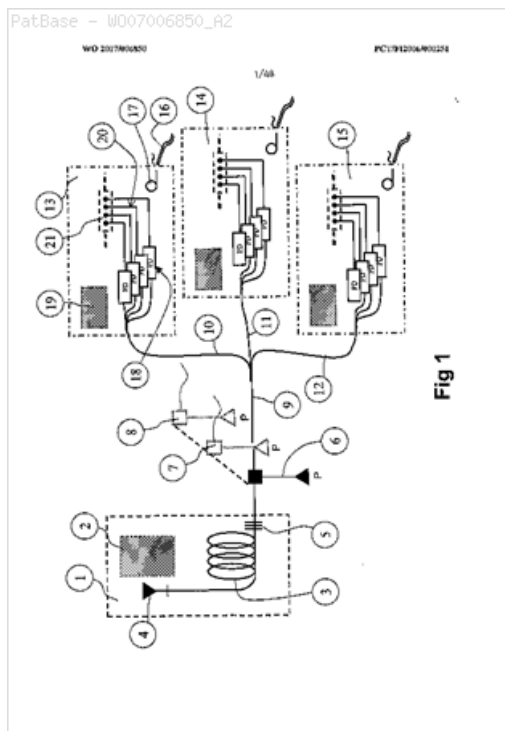
Classifications:

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B23K26/00 B23K26/08 C23C14/28 G02B26/10
G02B26/12 (Core/Invention)

International (IPC 1-7): B23K26/06 B23K26/36 C23C14/28

CPC: B23K26/324 G02B26/123 B23K26/0604 B23K26/0608
B23K26/34 B23K2201/34 G02B5/09 G02B26/121 H01L2924/0002
B23K26/0624 B23K26/082 B23K26/0821 B23K26/32 B23K26/40
B23K2203/16 B23K2203/30 B23K2203/42 B23K2203/52
B23K2203/50

European: B23K26/06A B23K26/06A2 B23K26/06B4B B23K26/08B
B23K26/08B2 B23K26/34 B23K26/40A B23K26/40B11
B23K26/40B7H G02B26/12B G02B26/12D G02B5/09 L23K201/34



Family:

Publication number	Publication date	Application number	Application date
EP1910013 A2	20080416	EP20060778481	20060713
IN03586KN2008 A	20090220	IN2008KN03586	20080902
IN03669KN2008 A	20090417	IN2008KN03669	20080908
IN03743KN2008 A	20090220	IN2008KN03743	20080912
IN03744KN2008 A	20090220	IN2008KN03744	20080912
WO07006850 A2	20070118	WO2006FI00251	20060713
WO07006850 A3	20070518	WO2006FI00251	20060713

Priority:

FI20050000747	20050713	FI20060000182	20060223	WO2007FI00045	20070223
WO2006FI00251	20060713	FI20060000358	20060412	WO2007FI00046	20070223
WO2007FI00048	20070223	WO2007FI00049	20070223		

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Inventor(s): MAKITALO JUHA ; MYLLYMAEKI VESA ; YLATALO SAMPO

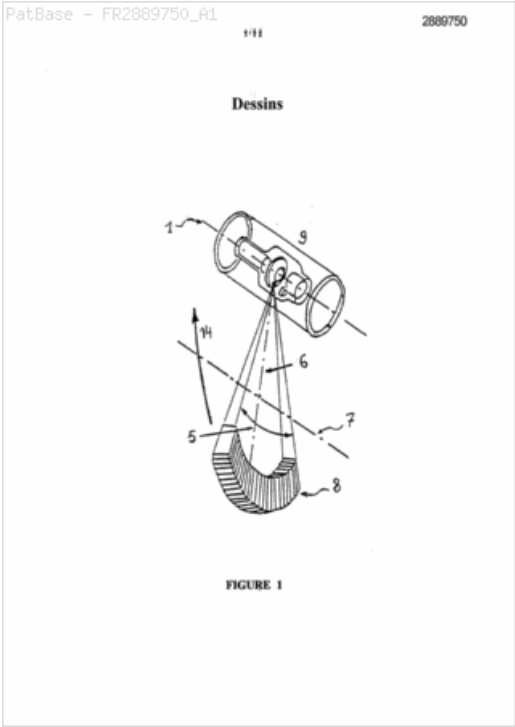
Agent(s): KONKONEN TOMI MATTI JUHANI

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW 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 MG MK ML MN MR MW MX 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 SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: VOLUMETRIC, MULTI-CUT AND MULTI-SOURCE STEREO-TOMODENSITOMETRIC IMAGING DEVICE FOR E.G. INSPECTING AIRCRAFT FUSELAGE, HAS SEMICONDUCTOR AND/OR SUPERCONDUCTOR BI-DIMENSIONAL DETECTORS THAT ARE ASSOCIATED TO FORM MATRICES OF RAW IMAGE DATA

Abstract: The device has semiconductor and/or superconductor bi-dimensional detectors (19) adapted to receive rays after traversing an object. The detectors are associated into an assembly at an X-ray tube in order to simultaneously form several bi-dimensional matrices of raw image data. The formed matrices are stored in digital form authorizing the display on the screen as well as the three dimensional treatment of the image and two dimensional treatment in different planes of the four dimensional space of new universal set of spatiotemporal distribution. An independent claim is also included for an imaging method.

Classifications:
International (IPC 8-9): G03B42/02 (Advanced/Invention);
G03B42/02 (Core/Invention)
CPC: A61B6/027 G01T1/249 A61B6/4014 A61B6/032 A61B6/482
G06T11/006
European: A61B6/03B A61B6/40B2 G01T1/24 G06T11/00T3
K61B6/48D



Family:

Publication number	Publication date	Application number	Application date
FR2889750 A1	20070216	FR20050008513	20050811

Priority:
FR20050008513 20050811

Probable Assignee:	MWANZA CHABUNDA CHRISTOPHE
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Assignee(s):	CHRISTOPHE MWANZA CHABUNDA
Inventor(s): (std):	MWANZA CHABUNDA CHRISTOPHE
Inventor(s):	CHRISTOPHE MWANZA CHABUNDA
Agent(s):	CHRISTOPHE MWANZA CHABUNDA

Title: APPARATUS FOR DETECTING CONTAMINANTS IN A LIQUID AND A SYSTEM FOR USE THEREOF

Abstract: Source: US2012114089A Disclosed herein are apparatus and methods for detecting and quantifying contaminants in aqueous solutions. In one embodiment, an apparatus for the detection of contaminants within a liquid comprises a sensor and a controller. The sensor comprises a film and a transducer configured such that, during use, a first surface of the transducer is in fluid communication with a liquid, and the film is disposed between the first surface and the liquid. The film can be a polymeric material capable of hindering the transport of a non-desired species therethrough. The controller is in operational communication with the transducer, and is configured to determine the concentration of contaminants within the liquid.

Classifications:

International (IPC 8-9): G01N27/22 G01N27/26 G01N33/18 G21C17/022 B01D17/12 B60R21/00 C12M1/34 E21B47/10 G01D21/02 G01F G01F23/00 G01F23/22 G01F23/24 G01F23/26 G01F23/284 G01N G01N1/10 G01N27/00 G01N27/02 G01N27/06 G01N27/08 G01N27/12 G01N29/02 G01N29/24 G01N30/26 G01N30/96 G01N33/00 G01N33/22 G01N33/28 G01N33/483 G01N33/487 G01R27/00 G01R27/22 G01R33/385 G01V3/00 G06K19/07 G06K19/077 G06K7/10 G21C17/00 G21C17/02 H03K17/955 H04B5/00 H04Q9/00 H05K1/16 (Advanced/Invention); H04Q9/00 (Advanced/Non-invention); G01N1/10 G01N27/06 G01N27/22 G01N27/26 G01N30/00 G01N33/18 G01R27/22 G21C17/02 (Core/Invention)

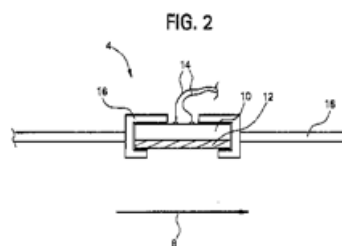
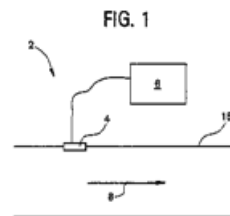
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European: G01N27/08 G01N27/22 G01N27/26 G01N27/333 G01N33/18 G21C17/022 S21Y2/202 S21Y2/302 S21Y4/30

US: 1/1 324/655 324/693 340/10.1 340/856.3 376/247 376/247P 376/259 376/259S 422/82.01 422/82.010S 702/23 73/290R 73/61.43 73/61.44 73/61.61 73/64.53

PatBase - US2012114089_AA

Patent Application Publication May 30, 2012 Sheet 1 of 16 US 2012/0114089 A1



Family:

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WO14104964 A1	20140703	WO2013SE51589	20131220
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Priority:

JP20150244700	20151216	US20060560476	20061116	US20080325653	20081201
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Probable Assignee: GEN ELECTRIC

Assignee(s): (std): GEN ELECTRIC COMANY ; GENERAL ELECTRICITY CO ; POTYRAILO RADISLAV ALEXANDROVICH ; TAMAKI RYO ; SURMAN CHERYL MARGARET ; ELLSON NICHOLAS JOSEP ; GE HEALTHCARE BIO SCIENCES AB ; GEN ELECTRIC ; GENERAL ELECTRIC CO ; MONK DAVID JAMES

Assignee(s): GO STEVEN ; GENERAL ELECTRIC COMANY ; DIERINGER JON ALBERT ; GENERAL ELECTRIC COMPANY ; GENERAL ELECTRIC CO GE ; MORRIS WILLIAM GUY ; PLATT WILLIAM CHESTER ; POTYRAILO RADISLAV A

Inventor(s): (std): DIERINGER JON ALBERT ; ELLSON NICHOLAS JOSEP ; GO STEVEN ; IGOR TOKAREV ; LEE YONGJAE ; MONK DAVID JAMES ; MORRIS WILLIAM GUY ; NAGRAJ NANDINI ; PLATT WILLIAM CHESTER ; POTYRAILO RADISLAV A ; POTYRAILO RADISLAV ALEXANDER ; POTYRAILO RADISLAV ALEXANDROVI ; POTYRAILO RADISLAV ALEXANDROVICH ; RADISLAV ALEXANDROVICH POTYRAILO ; BURNS ANDREW ARTHUR PAUL ; COTERO VICTORIA EUGENIA ; S GAO ; SURMAN CHERYL MARGARET ; TAMAKI RYO ; TOKAREV IGOR

Inventor(s): DAVID JAMES MONK ; RYO TAMAKI

Agent(s): PHILLIPS ORMONDE FITZPATRICK; CRAIG WILSON AND CO; BORDEN LADNER GERVAIS LLP; ILLINGWORTH LAW WILLIAM ILLINGWORTH; LEE BRENDA; CAVILL ROSS DAVID; FOSTER CHRISTOPHER MICHAEL; IR MIGNI MYRIASANDRA SH MIP MSEL; IR MIGNI MYRIASANDRA MIP MSEL; KRANSELL AND WENNBORG KB BOX 27834 115 93 STOCKHOLM SE; ANDREW J; EILEEN B; MEUNIER CARLIN AND CURFMAN LLC; ANN M; JEAN K; FLETCHER YODER PC; JOHN P; DOMBROWSKI JOANNA M ET AL; WINTER CATHERINE J ET AL; GE HEALTHCARE BIO SCIENCES AB ET AL; PUNDSACK SCOTT R ET AL

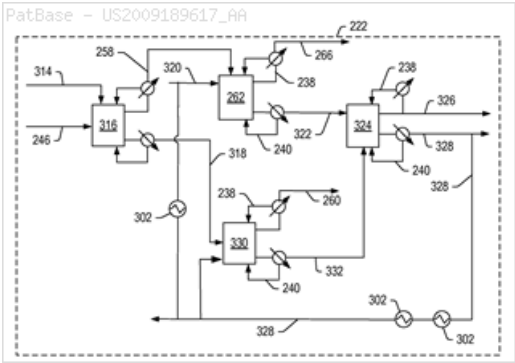
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Title: CONTINUOUS SUBSURFACE HEATER TEMPERATURE MEASUREMENT

Abstract: Source: US2009189617A A method for assessing one or more temperatures of an electrically powered subsurface heater includes accessing an impedance profile of the electrically powered subsurface heater while the heater is being operated in the subsurface. The impedance profile is analyzed with a frequency domain algorithm to assess one or more temperatures of the heater.

Classifications:

International (IPC 8-9): G01R27/00 (Advanced/Invention);
G01R27/00 (Core/Invention)
CPC: H01F29/04 E21B43/24 H01F27/38 H01J37/32926 H01J37/32935
Y10T29/49083 E21B36/04 E21B43/30
European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38
US: 324/649 324/649P



Family:

Publication number	Publication date	Application number	Application date
US2009189617 AA	20090730	US20080250303	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250303 20081013

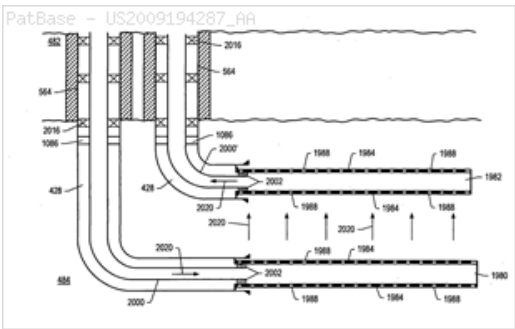
Probable Assignee: SHELL OIL CO
Assignee(s): (std): BURNS DAVID ; SANDBERG CHESTER LEDLIE
Assignee(s): SHELL OIL CO
Inventor(s): (std): BURNS DAVID ; SANDBERG CHESTER LEDLIE
Agent(s): SHELL OIL COMPANY; SHELL OIL CO

Title: INDUCTION HEATERS USED TO HEAT SUBSURFACE FORMATIONS

Abstract: Source: US2009194287A A heating system for a subsurface formation includes an elongated **electrical** conductor located in the subsurface formation. The **electrical** conductor extends between at least a first **electrical** contact and a second **electrical** contact. A ferromagnetic conductor at least partially surrounds and at least partially extends lengthwise around the **electrical** conductor. The **electrical** conductor, when energized with time-varying **electrical** current, induces sufficient **electrical** current flow in the ferromagnetic conductor such that the ferromagnetic conductor resistively heats to a temperature of at least about 300 degrees centigrade

Classifications:

International (IPC 8-9): E21B36/00 E21B36/04
E21B43/24 (Advanced/Invention);
E21B36/00 E21B43/16 (Core/Invention)
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926
H01J37/32935 E21B36/04 E21B43/30
European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38
US: 166/302 166/52 166/52S 166/60 166/60S 392/301



Title: METHODS FOR FORMING LONG SUBSURFACE HEATERS

Abstract: Source: US2009194524A A method for forming a longitudinal subsurface heater includes longitudinally welding an **electrically** conductive sheath of an insulated conductor heater along at least one longitudinal strip of metal. The longitudinal strip is formed into a tubular around the insulated conductor heater with the insulated conductor heater welded along the inside surface of the tubular.

Classifications:

International (IPC 8-9): H05B3/03 H05B3/44 (Advanced/Invention);

H05B3/00 (Advanced/Non-invention);

H05B3/02 H05B3/42 (Core/Invention)

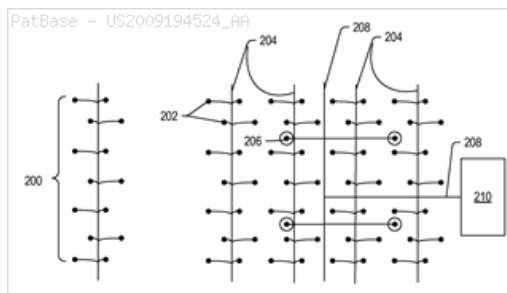
CPC: H01F29/04 E21B43/24 H01F27/38 H01J37/32926 H01J37/32935

Y10T29/49083 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4

T01F27/38

US: 219/541 219/542 219/544 219/546 219/548 29/611 29/611S



Family:

Publication number	Publication date	Application number	Application date
US2009194524 AA	20090806	US20080250346	20081013
US8536497 BB	20130917	US20080250346	20081013

Priority:

US20070999839P 20071019

US20080046329P 20080418

US20080250346 20081013

Probable Assignee:

SHELL OIL CO

Assignee(s): (std):

KIM DONG SUB ; SHELL OIL CO

Inventor(s): (std):

KIM DONG SUB

Agent(s):

SHELL OIL COMPANY; SHELL OIL CO

Title: MULTI-STEP HEATER DEPLOYMENT IN A SUBSURFACE FORMATION

Abstract: Source: US2009194286A A method for installing a horizontal or inclined subsurface heater includes placing a heating section of a heater in a horizontal or inclined section of a wellbore with an installation tool. The tool is uncoupled from the heating section. A lead in section is mechanically and electrically coupled to the heating section of the heater. The lead-in section is located in an angled or vertical section of the wellbore.

Classifications:

International (IPC 8-9): E21B23/00 E21B36/00 E21B36/04

E21B43/24 (Advanced/Invention);

E21B23/00 E21B36/00 E21B43/16 (Core/Invention)

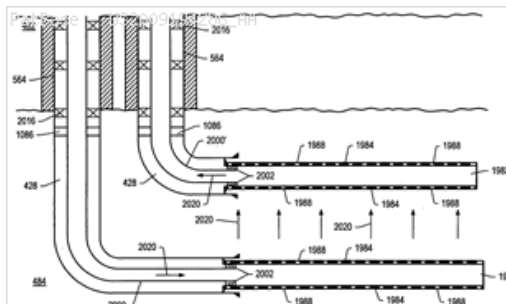
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926

H01J37/32935 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4

T01F27/38

US: 166/302 166/378 166/381 166/381S 166/50 166/55.1 166/60



Title: RANGING METHODS FOR DEVELOPING WELLBORES IN SUBSURFACE FORMATIONS

Abstract: Source: US2009194333A A method for forming two or more wellbores in a subsurface formation includes forming a first wellbore in the formation. A second wellbore is directionally drilled in a selected relationship relative to the first wellbore. At least one magnetic field is provided in the second wellbore using one or more magnets in the second wellbore located on a drilling string used to drill the second wellbore. At least one magnetic field is sensed in the first wellbore using at least two sensors in the first wellbore as the magnetic field passes by the at least two sensors while the second wellbore is being drilled. A position of the second wellbore is continuously assessed relative to the first wellbore using the sensed magnetic field. The direction of drilling of the second wellbore is adjusted so that the second wellbore remains in the selected relationship relative to the first wellbore.

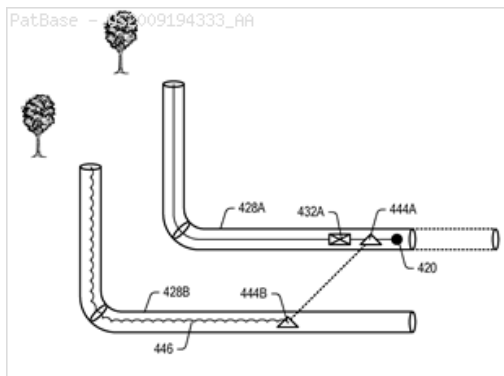
Classifications:

International (IPC 8-9): E21B47/02 E21B7/04 (Advanced/Invention);
E21B47/02 E21B7/04 (Core/Invention)

CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926
H01J37/32935 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38

US: 175/45 175/45P 175/61 175/62

**Family:**

Publication number	Publication date	Application number	Application date
US2009194333 AA	20090806	US20080250273	20081013
US8011451 BB	20110906	US20080250273	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250273 20081013

Probable Assignee:

SHELL OIL CO

Assignee(s): (std):

MACDONALD DUNCAN ; SHELL OIL CO

Assignee(s):

SHELL OIL COMPANY

Inventor(s): (std):

MACDONALD DUNCAN

Agent(s):

SHELL OIL COMPANY; SHELL OIL CO

Abstract: Source: US2009194269A A heating system for a subsurface formation is described. The heating system includes three substantially u-shaped heaters with first end portions of the heaters being electrically coupled to a single, three-phase wye transformer and second end portions of the heaters being electrically coupled to each other and/or to ground. The three heaters may enter the formation through a first common wellbore and exit the formation through a second common wellbore so that the magnetic fields of the three heaters at least partially cancel out in the common wellbores.

US: 166/302 166/302S 166/50 166/60 166/60P



Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250352 20081013

Probable Assignee:

SHELL OIL CO

Assignee(s): (std):

SHELL OIL CO ; VINEGAR HAROLD J

Assignee(s):

SHELL OIL COMPANY

Inventor(s): (std):

VINEGAR HAROLD J

Agent(s):

SHELL OIL COMPANY; SHELL OIL CO

Title: METHODS FOR FORMING WELLBORES IN HEATED FORMATIONS

Abstract: Source: US2009194329A A method for forming a wellbore in a heated formation includes flowing liquid cooling fluid to a bottom hole assembly in a wellbore in a heated formation. At least a portion of the liquid cooling fluid is vaporized at or near a region to be cooled. Vaporizing the liquid cooling fluid absorbs heat from the region to be cooled.

Classifications:

International (IPC 8-9): E21B21/12 E21B36/00

E21B7/00 (Advanced/Invention);

E21B36/00 E21B7/00 (Core/Invention)

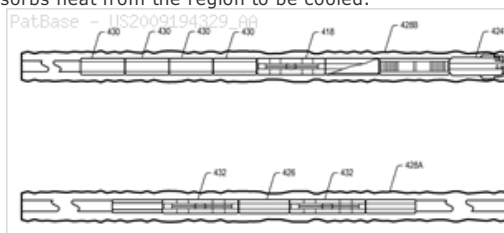
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H01J37/32935 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4

T01F27/38

US: 175/17 175/17P 175/209 175/65



Family:

Publication number	Publication date	Application number	Application date
US2009194329 AA	20090806	US20080250288	20081013
US8272455 BB	20120925	US20080250288	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250288 20081013

Probable Assignee: SHELL OIL CO

Assignee(s): (std): GUIMERANS ROSALVINA RAMONA ; MANSURE ARTHUR JAMES ; SHELL OIL CO

Assignee(s): SHELL OIL COMPANY

Inventor(s): (std): GUIMERANS ROSALVINA RAMONA ; MANSURE ARTHUR JAMES

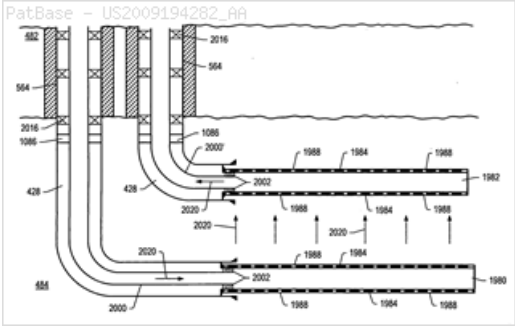
Agent(s): SHELL OIL COMPANY; SHELL OIL CO

Title: IN SITU OXIDATION OF SUBSURFACE FORMATIONS

Abstract: Source: US2009194282A Methods and systems for treating a hydrocarbon containing formation described herein include providing heat to a first portion of the formation from a plurality of heaters in the first portion, producing produced through one or more production wells in a second portion of the formation, reducing or turning off heat provided to the first portion after a selected time, providing an oxidizing fluid through one or more of the heater wells in the first portion, providing heat to the first portion and the second portion through oxidation of at least some hydrocarbons in the first portion, and producing fluids through at least one of the production wells in the second portion. The produced fluids may include at least some oxidized hydrocarbons produced in the first portion.

Classifications:

International (IPC 8-9): E21B43/00 E21B43/16 E21B43/24 E21B43/243 E21B43/25 (Advanced/Invention); E21B43/00 E21B43/16 E21B43/25 (Core/Invention)
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926 H01J37/32935 E21B36/04 E21B43/30
European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4 T01F27/38
US: 166/258 166/260 166/261 166/263 166/263S 166/272.1 166/272.100S 166/272.3 166/272.6 166/272.7 166/272.700P



Family:

Publication number	Publication date	Application number	Application date
US2009194282 AA	20090806	US20080250370	20081013
US7866386 BB	20110111	US20080250370	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250370 20081013

Probable Assignee: SHELL OIL CO

Assignee(s): (std): BEER GARY LEE ; LI BUSHENG ; MO WEIJIAN ; SHEN CHONGHUI ; SHELL OIL CO

Assignee(s): SHELL OIL COMPANY

Inventor(s): (std): BEER GARY LEE ; LI BUSHENG ; MO WEIJIAN ; SHEN CHONGHUI

Agent(s): SHELL OIL COMPANY; SHELL OIL CO

Title: IRREGULAR SPACING OF HEAT SOURCES FOR TREATING HYDROCARBON CONTAINING FORMATIONS

Abstract: Source: US2009200031A A method for treating a hydrocarbon containing formation includes providing heat input to a first section of the formation from one or more heat sources located in the first section. Fluids are produced from the first section through a production well located at or near the center of the first section. The heat sources are configured such that the average heat input per volume of formation in the first section increases with distance from the production well.

Classifications:

International (IPC 8-9): E21B36/00 E21B36/04

E21B43/24 (Advanced/Invention);

E21B36/00 E21B43/16 (Core/Invention)

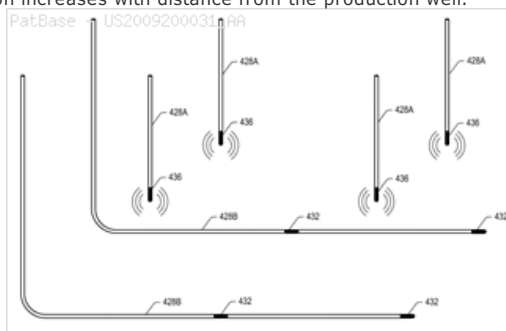
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926

H01J37/32935 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4

T01F27/38

US: 166/272.1 166/279 166/302



Family:

Publication number	Publication date	Application number	Application date
US2009200031 AA	20090813	US20080250364	20081013
US8196658 BB	20120612	US20080250364	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250364 20081013

Probable Assignee: SHELL OIL CO

Assignee(s): (std): MILLER DAVID SCOTT ; SHELL OIL CO ; UWECHUE UZO PHILIP

Assignee(s): SHELL OIL COMPANY

Inventor(s): (std): MILLER DAVID SCOTT ; UWECHUE UZO PHILIP

Agent(s): SHELL OIL COMPANY; SHELL OIL CO

Title: HEATING SUBSURFACE FORMATIONS BY OXIDIZING FUEL ON A FUEL CARRIER

Abstract: Source: US2009200023A A method of heating a portion of a subsurface formation includes drawing fuel on a fuel carrier through an opening formed in the formation. Oxidant is supplied to the fuel at one or more locations in the opening. The fuel is combusted with the oxidant to provide heat to the formation.

Classifications:

International (IPC 8-9): E21B36/00 E21B36/02 E21B43/24

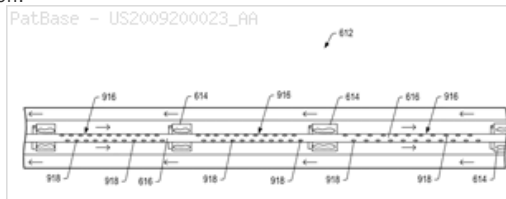
E21B43/243 (Advanced/Invention);

E21B36/00 E21B43/16 (Core/Invention)

CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926
H01J37/32935 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38

US: 166/256 166/256S 166/257 166/260 166/302 166/58 166/58S



Family:

Publication number	Publication date	Application number	Application date
US2009200023 AA	20090813	US20080250393	20081013
US8276661 BB	20121002	US20080250393	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250393 20081013

Probable Assignee: SHELL OIL CO

Assignee(s): (std): COSTELLO MICHAEL ; VINEGAR HAROLD J ; SHELL OIL CO

Assignee(s): SHELL OIL COMPANY

Inventor(s): (std): COSTELLO MICHAEL ; VINEGAR HAROLD J

Agent(s): SHELL OIL COMPANY; SHELL OIL CO

Title: HIGH TEMPERATURE METHODS FOR FORMING OXIDIZER FUEL

Abstract: Source: US2009200025A A method of treating a formation fluid includes providing formation fluid from a subsurface in situ heat treatment process. The formation fluid is separated to produce a liquid stream and a first gas stream. The first gas stream includes carbon dioxide, hydrogen sulfide, hydrocarbons, hydrogen or mixtures thereof. Molecular oxygen is separated from air to form a molecular oxygen stream comprising molecular oxygen. The first gas stream is combined with the molecular oxygen stream to form a combined stream comprising molecular oxygen and the first gas stream. The combined stream is provided to one or more downhole burners.

Classifications:

International (IPC 8-9): E21B36/02 E21B43/24 E21B43/34

E21B43/40 (Advanced/Invention);

E21B36/00 E21B43/16 E21B43/34 (Core/Invention)

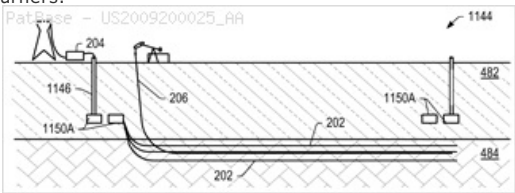
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926

H01J37/32935 E21B36/04 E21B43/30

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T01F27/38

US: 166/265 166/267 166/302 166/59 166/59S 166/75.12



Family:

Publication number	Publication date	Application number	Application date
US2009200025 AA	20090813	US20080250360	20081013
US7866388 BB	20110111	US20080250360	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250360 20081013

Probable Assignee:

SHELL OIL CO

Assignee(s): (std):

BRAVO JOSE LUIS ; SHELL OIL CO

Assignee(s):

SHELL OIL COMPANY

Inventor(s): (std):

BRAVO JOSE LUIS

Agent(s):

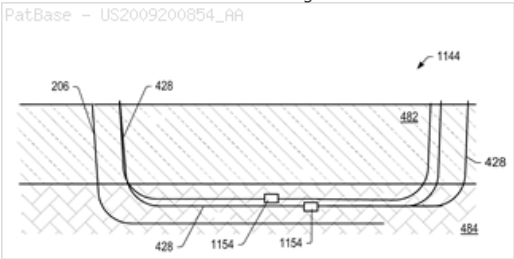
SHELL OIL COMPANY; SHELL OIL CO

Title: SOLUTION MINING AND IN SITU TREATMENT OF NAHCOLITE BEDS

Abstract: Source: US2009200854A A method for treating a nahcolite containing subsurface formation includes solution mining a first nahcolite bed above a hydrocarbon containing layer using a plurality of first solution mining wells. A second nahcolite bed is solution mined below the hydrocarbon containing layer using a plurality of second solution mining wells. At least one of the first solution mining wells is converted into a production well. The hydrocarbon containing layer is heated using a plurality of heaters. Formation fluid is produced from at least one converted first solution mining well.

Classifications:

International (IPC 8-9): E21B36/00 E21B43/241 E21B43/28
E21C41/16 E21C41/24 (Advanced/Invention);
E21B36/00 E21B43/00 E21B43/16 E21C41/00 (Core/Invention)
CPC: Y10T29/49083 H01F29/04 E21B43/24 H01F27/38 H01J37/32926
H01J37/32935 E21B36/04 E21B43/30
European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38
US: 166/272.6 166/272.600S 299/4 299/5 299/5P



Family:

Publication number	Publication date	Application number	Application date
US2009200854 AA	20090813	US20080250373	20081013
US8240774 BB	20120814	US20080250373	20081013

Priority:

US20070999839P 20071019 US20080046329P 20080418 US20080250373 20081013

Probable Assignee:

SHELL OIL CO

Assignee(s): (std):

SHELL OIL CO ; VINEGAR HAROLD J

Assignee(s):

SHELL OIL COMPANY

Inventor(s): (std):

VINEGAR HAROLD J

Agent(s):

SHELL OIL COMPANY; SHELL OIL CO

Title: VARIABLE VOLTAGE LOAD TAP CHANGING TRANSFORMER

Abstract: Source: US2009200290A Power supply systems for subsurface heaters are described herein. The power supply system includes a variable voltage, load tap changing transformer. Systems and methods for supplying **electrical** power to subsurface heaters using the variable voltage transformers are also described herein.

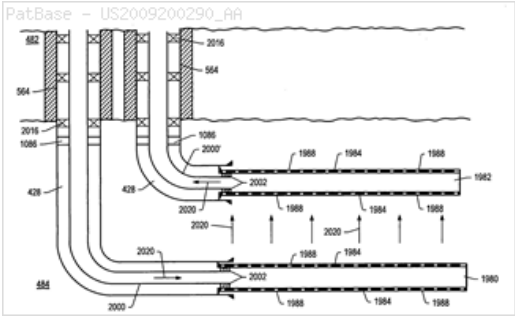
Classifications:

International (ipc 8-9): H05B3/02 (Advanced/Invention);
H05B3/02 (Core/Invention)

CPC: H01F29/04 E21B43/24 H01F27/38 H01J37/32926 H01J37/32935
Y10T29/49083 E21B36/04 E21B43/30

European: E21B43/24 H01F29/04 H01J37/32S2 H01J37/32S4
T01F27/38

US: 219/488



Title: IRREVERSIBLE ELECTROPORATION TO CREATE TISSUE SCAFFOLDS

Abstract: Source: US2009269317A The present invention provides engineered tissue scaffolds, engineered tissues, and methods of using them. The scaffolds and tissues are derived from natural tissues and are created using non-thermal irreversible electroporation (IRE). Use of IRE allows for ablation of cells of the tissue to be treated, but allows vascular and neural structures to remain essentially unharmed. Use of IRE thus permits preparation of thick tissue scaffolds and tissues due to the presence of vasculature within the scaffolds. The engineered tissues can be used in methods of treating subjects, such as those in need of tissue replacement or augmentation.

Classifications:

International (IPC 8-9): A61B17/00 A61B18/00 A61B18/04 A61B18/12 A61B18/14 A61B18/18 A61B19/00 A61B34/10 A61B5/05 A61B5/055 A61B8/00 A61K35/12 A61L27/36 A61L27/38 A61M25/00 A61M31/00 A61M37/00 A61N1/00 A61N1/04 A61N1/05 A61N1/06 A61N1/18 A61N1/30 A61N1/32 A61N5/00 C12N13/00 C12N5/00 C12N5/02 C12N5/08 G06F17/50 (Advanced/Invention); A61B18/00 A61N1/04 A61N1/05 G06F19/00 (Advanced/Non-invention); A61B18/18 A61K35/12 A61L27/00 A61N1/05 C12N13/00 C12N5/02 C12N5/08 (Core/Invention)

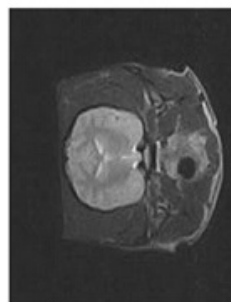
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PatBase - US2009269317_AA

Patent Application Publication Oct. 29, 2009 Sheet 1 of 7 US 2009/0269317 A1

**Figure 1A****Family:**

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Priority:

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Probable Assignee: VIRGINIA TECH INTELL PROP

Assignee(s): (std): DAVALOS RAFAEL ; ARENA CHRISTOPHER B ; CALDWELL JOHN ; CALLAS PETER ; DAVALOS RAFAEL V ; GARCIA PAULO A ; NEAL II ROBERT E ; GOLDBERG S NAHUM ; VIRGINIA TECH INTELLECTUAL PROPERTIES INC ; VIRGINIA TECH INTELL PROP ; ROBERTSON JOHN L ; NEAL ROBERT E ; ROSSMEISL JOHN H ; ANGIODYNAMICS INC ; RYLANDER MARISSA N ; SANO MICHAEL B

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Inventor(s): (std): ARENA CHRISTOPHER B ; CALDWELL JOHN ; CALLAS PETER ; DAVALOS RAFAEL ; DAVALOS RAFAEL V ; GARCIA PAULO A ; GOLDBERG S NAHUM ; LEE YONG WOO ; NEAL II ROBERT ; NEAL II ROBERT E ; NEAL ROBERT ; NEAL ROBERT E ; ROBERTSON JOHN L ; ROSSMEISL JOHN H ; RYLANDER MARISSA N ; SANO MICHAEL B ; SINGLE GORDON

Inventor(s): RAFAEL V DAVALOS ; GOLDBERG S

Agent(s): WRAYS; DAVIES COLLISON CAVE PTY LTD; SMART AND BIGGAR; MUELLER FOTTNER STEINECKE; SLOBOSHANIN SERGEJ; LATIMER MAYBERRY AND MATTHEWS IP LAW LLP; LATIMER AND MAYBERRY IP LAW LLP; NEW RIVER VALLEY INTELLECTUAL PROPERTY LAW; NEW RIVER VALLEY IP LAW; MICHELE L; NEW RIVER VALLEY IP LAW PC; LATIMER MATTHEW T; MAYBERRY MICHELE L; MAYBERRY MICHELE; ONEIL JEROME

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

Title: METHODS AND APPARATUS FOR REMOVAL AND CONTROL OF MATERIAL IN LASER DRILLING OF A BOREHOLE

Abstract: Source: US2010044102A There is provided a system, apparatus and methods for removal of material for the path of a laser beam during laser drilling of a borehole and for removal of displaced borehole material from the borehole during laser drilling. In particular, there are provided paths, dynamics and parameters of fluid flows, and apparatus for obtaining such, for use in conjunction with a laser bottom hole assembly.

Classifications:

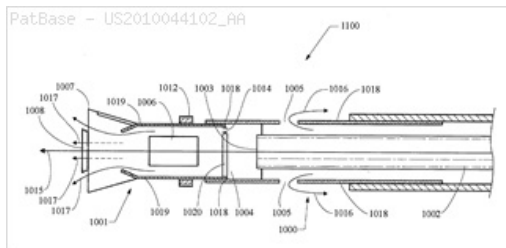
International (IPC 8-9): B01J19/12 B08B7/00 B08B9/02 B08B9/023

B08B9/027 B08B9/055 B23K26/00 B23K26/04 B23K26/06 B23K26/064 B23K26/073 B23K26/08 B23K26/10 B23K26/12 B23K26/122 B23K26/14 B23K26/16 B23K26/24 B23K26/352 B23K26/36 B23K26/38 B23K26/382 B23K26/40 B23K26/402 B23P11/00 B63B17/00 B63B35/28 B63C11/40 B63C11/44 B63C11/48 B63G8/00 B63G8/08 B65H55/00 B65H59/00 E01C23/08 E01C23/12 E02B17/00 E02D17/00 E21B10/00 E21B10/50 E21B10/54 E21B10/60 E21B17/00 E21B17/20 E21B19/00 E21B19/22 E21B21/00 E21B21/08 E21B21/10 E21B21/14 E21B21/16 E21B23/00 E21B23/14 E21B29/00 E21B29/02 E21B29/06 E21B33/00 E21B33/06 E21B33/064 E21B33/12 E21B33/13 E21B37/00 E21B4/02 E21B4/04 E21B41/00 E21B41/04 E21B43/00 E21B43/11 E21B43/114 E21B43/119 E21B43/24 E21B43/26 E21B43/267 E21B44/00 E21B47/00 E21B47/113 E21B47/12 E21B49/00 E21B7/00 E21B7/14 E21B7/15 E21B7/16 E21C35/00 E21C37/16 E21C37/18 E21C41/00 E21D9/10 F21V15/01 F21V15/06 F21V29/00 F21V8/00 G01J1/04 G01M11/00 G01M5/00 G02B6/08 G02B27/14 G02B27/20 G02B6/02 G02B6/26 G02B6/28 G02B6/32 G02B6/36 G02B6/38 G02B6/42 G02B6/44 H01J27/24 H01J40/14 H01L21/00 H01L31/00 H01S3/00 H01S3/04 H01S3/067 H01S3/08 H01S3/094 H01S3/0941 H01S3/109 H01S3/16 H01S3/30 H01S5/024 H01S5/40 H02G1/08 H04B10/079 (Advanced/Invention); B08B7/00 B23K103/00 B63B19/00 B63B21/00 B63B35/00 E02B17/00 E21B15/00 E21B23/00 E21B43/00 E21B43/116 E21B43/16 E21B49/00 E21B7/04 E21B7/15 G02B6/32 G02B6/36 G02B6/38 G02B6/42 G02B6/50 (Advanced/Non-invention); B65H55/00 E21B17/00 E21B7/00 E21B7/14 G02B6/44 (Core/Invention)

CPC: E21B4/18 E21B17/203 E21B21/12 E21B21/16 H01L31/03046 Y02E10/544 H04B10/807 H01L2924/01015 H01L2924/01047 H01L2924/00014 B63B35/28 E21C37/18 E21D9/1073 G02B6/4413 B23K26/0626 B23K37/0288 E02B2017/0095 B23K26/24 B23K26/36 G02B6/4402 E01C23/08 E21B4/02 E21C25/00 E21D9/08 E01C23/12 E21B44/00 E21B33/076 E21B36/04 E21B37/00 E21B37/08 F17D5/00 B08B9/04 B08B9/0436 B08B7/0071 B08B9/023 B08B9/027 B23K26/0093 B23K26/0648 B23K26/10 E21B4/04 E21B2023/008 H01L31/0201 H01L31/022433 H01L31/0508 H01L31/054 E02B2017/0052 E21B19/002 B08B9/02 B08B9/055 G02B6/502 G02B6/3814 B23K26/064 B23K26/142 B23K26/40 B63G2008/007 B63G8/001 E21B41/04 B23K26/1462 E01C23/127 G01M5/0025 G01M5/0033 G01M5/0091 G01M11/35 Y02E10/52 G02B6/4415 G02B6/443 G02B6/4436 G02B6/4492 B23K2203/52 E21B33/064 E21B33/063 B23K26/12 B23K26/14 B63B17/00 B63B19/00 B63B21/00 B63B35/00 E02D17/00 B08B7/0042 B23K26/0652 B23K26/127 B23K2203/10 B23K26/0732 B23K26/0736 H01S3/04 G02B6/44 E21C25/64 E21C27/24 H01S3/0675 H01S3/094003 H01S3/094042 H01S3/1608 H01S3/1616 B08B9/043 E21B43/00 E21B43/01 G21C17/017 E21B17/00 G02B6/02395 B23K26/0096 B23K26/04 B23K26/1464 E21B29/02 H01S3/0064 G02B6/4427 G02B2006/4297 E21B43/119 B23K26/00 E21B43/26 G02B6/3813 G02B6/3818 B23K26/146 B23K26/382 H01S3/0071 B23K26/16 B23K2201/04 B23K26/282 B23K26/38 B60P1/5423 B66C23/36 E21B41/00 B23K26/106 H01S5/02423 G02B23/2492 H01S3/005 G02B26/0875 G02B6/32 G02B6/3624 G02B6/4296 E21B33/1204 E21B33/13 H01L2924/00011 B23K26/1224 B23K26/402 B23K2203/30 E21B43/162 E21B49/00 H01S3/06733 H01S3/1603 H01S3/0941 H01S3/094007 G02B6/2817 G02B6/3871 G02B6/3897 H01S3/08 G02B6/3604 E21B7/14 H01S3/302 H01S3/094046 H01S3/09415 H01S3/06708 H01S3/109 E21B29/06 E21B43/2405 B23K26/06 H01S3/094015 H01S3/094092 H01S3/094096 H01S3/1693 H01S3/1695 H01S3/2383 E21B7/15 E21B10/60 G02B6/4458 E21B21/00 E21B21/08 E21B21/103 E21B29/00 E21B43/11

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US: 1/1 114/26 114/312 114/313 114/337 134/1.1 166/242.2 166/250.1 166/280.1 166/288 166/297 166/304 166/361 166/376 166/384 166/385 166/55.1 166/55.2 166/65.1 166/65.100S 166/66 166/77.1 166/77.2 175/107 175/11 175/15 175/15P 175/16 175/162 175/16P 175/16S 175/40 175/424 175/57 175/65 175/65S 175/92 175/92S 219/121.61 219/121.67 219/121.670S 219/121.7 219/121.72 219/121.720P 219/121.84 219/60R 219/61 242/159 242/159S 250/215 250/227.11 250/492.1 250/492.100P 254/134.3FT 254/134.3R 254/134.4 29/428 29/428S 299/14 299/29 359/226.2 362/259 362/317 362/553 362/553S 372/14 372/4 372/9 385/100 385/102 385/104 385/109 385/109P 385/111 385/12 385/13 385/134 385/26 385/88 385/89 385/92 385/93 385/94



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Probable Assignee: FORO ENERGY INC

Assignee(s): (std): MOXLEY JOEL F ; LAND MARK S ; KOBlick YESHAYA ; GRUBB DARYL L ; GRAY WILLIAM C ; MCKAY RYAN P ; KOLACHALAM SHARATH K ; MAKKI SIAMAK ; JONES ALBERTUS REBECCA ; FRAZE JASON D ; FORO ENERGY INC ; LINYAEV EUGENE J ; MARSHALL SCOTT A ; MESNARD DAVID R ; HAVLINEK KENNETH L ; KOLACHALAM SHARARTH ; FAIRCLOTH BRIAN O ; FAIRCLOTH BRIAN O ; DEWITT RON A ; DEWITT RONALD A ; FORD ENERGY INC ; FAIRDOTH BRIAN O ; FORO EHNERDZHI INK ; LINYAEV EUGENCE J ; KOLACHALAM SHARARTH K ; NEHLSSEN JAMES P ; RINZLER CHARLES C ; ZEDIKER MARK S ; UNDERWOOD LANCE D ; SCHROIT SAM N ; NORTON RYAN J ; VOLKMAR JOHN F ; ALLEN ERIK C ; CHEVRON USA INC ; DE WITT RONALD A ; DEUTCH PAUL D

Assignee(s): DEUTSCH PAUL D ; YEARWOOD JOHN ; ZIMMERMAN TOM ; ELY JOHN L ; ENERGY UNITED STATES DEPARTMENT OF ; KELLERMANN FRED C

Inventor(s): (std): ALLEN ERIK C ; BRIAN O FAIRCLOTH ; CHARLES C RINZLER ; DE WITT RONALD A ; DEUTCH PAUL D ; DEWITT RON A ; DEWITT RONALD A ; FAIRCLOTH BRIAN O ; FAIRCLOTH BRIAN O ; FEHRKLOT BRAJAN O ; FRAZE JASON D ; GRAY WILLIAM C ; GRUBB DARYL L ; JOEL F MOXLEY ; JONES ALBERTUS REBECCA ; KOBlick YESHAYA ; KOBlik JESHAYA ; KOLACHALAM SHARARTH ; KOLACHALAM SHARATH K ; LAND MARK S ; LEHND MARK S ; LINYAEV EUGENCE J ; LINYAEV EUGENE J ; MARK S LAND ; MARK S ZEDIKER ; MARSHALL SCOTT A ; MCKAY RYAN P ; MOKSLI DZHOEL F ; MOXLEY JOEL F ; RINZLER CHARL Z K ; RINZLER CHARLES C ; SCHROIT SAM N ; UNDERWOOD LANCE D ; VOLKMAR JOHN F ; YESHAYA KOBlick ; ZEDIKER MARK S ; ZIMMERMAN TOM ; YEARWOOD JOHN ; NORTON RYAN J ; MESNARD DAVID R ; MAKKI SIAMAK ; KOLACHALAM SHARARTH K ; KELLERMANN FRED C ; HAVLINEK KENNETH L ; FAIRDOTH BRIAN O ; ELY JOHN L ; NEHLSSEN JAMES P ; ELY JOHN ; GRUBB DARYL

Inventor(s): DEUTSCH PAUL D ; MARK SZEDIKER ; JOEL FMOXLEY ; ERIK C ALLEN ; CHARLES CRINZLER ; BRIAN OFAIRCLOTH

Agent(s): SPRUSON AND FERGUSON; CASSAN MACLEAN; BUNGARTZ KLAUS PETER; TERSTEEGEN FELIX; SABA AND CO TMP; ITOH SHIGERU; BRINKS HOFER GILSON AND LIONE; FORO ENERGY/BHGL; FORO ENERGY BHGL; GLEN; GLEN P; STEPTOE AND JOHNSON LLP; STEPTOE AND JOHNSON; BRIAN; STEPTOE AND JOHNSON LLC; BELVIS LAW LLC; BELVIS GLEN P; FREEMAN JOHN C; BELVIS GLEN P ET AL

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

Title: COMPACT ENDOCAVITY DIAGNOSTIC PROBES FOR NUCLEAR RADIATION DETECTION

Abstract: Source: US2011286576A This invention relates to the field of radiation imaging. In particular, the invention relates to an apparatus and a method for imaging tissue or an inanimate object using a novel probe that has an integrated solid-state semiconductor detector and complete readout electronics circuitry.

Classifications:

International (IPC 8-9): A61B17/94 A61B6/00

G01T1/00 (Advanced/Invention)

CPC: H01L27/14618 H01L27/14661 A61B6/4208 A61B1/051

A61B6/06 A61B6/425 A61B6/4291 A61B6/4417 A61B6/48

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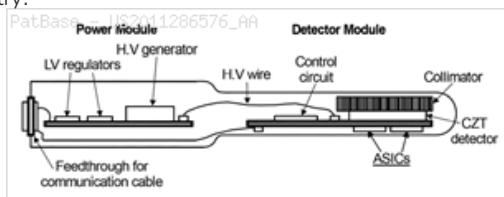
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A61B8/44N G01T1/161 G21K1/02B K61B8/08 K61B8/08R K61B8/08S

US: 250/370.09 378/62 378/62P



Family:

Publication number	Publication date	Application number	Application date
US2011286576 AA	20111124	US20110077627	20110331
US8816292 BB	20140826	US20110077627	20110331

Priority:

US20100320157P 20100401 US20110077627 20110331

Probable Assignee: HYBRIDYNE IMAGING TECHNOLOGIES INC

Assignee(s): (std): BOLOTNIKOV ALEKSEY ; BROOKHAVEN SCIENCE ASS LLC ; CUI YONGGANG ; HYBRIDYNE IMAGING TECHNOLOGIES INC ; JAMES RALPH

Assignee(s): BROOKHAVEN SCIENCE ASSOCIATES LLC

Inventor(s): (std): BOLOTNIKOV ALEKSEY ; CUI YONGGANG ; JAMES RALPH

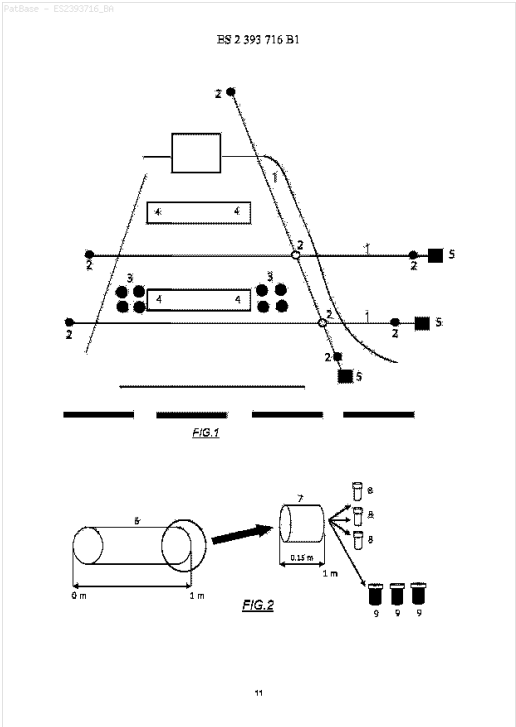
Agent(s): CHARLES N; FOX ROTHSCHILD LLP

Title: METODO PARA DETECTAR Y EVALUAR SUELOS CONTAMINADOS POR HIDROCARBUROS EN ESTACIONES DE SERVICIO Y UNIDADES DE SUMINISTRO FUERA DE SERVICIO METHOD FOR DETECTING AND EVALUATING HYDROCARBON CONTAMINATED SOIL SERVICE STATIONS AND SUPPLY UNITS OUT OF SERVICE (Machine translation)

Abstract: Source: ES2393716A Metodo para la deteccion y evaluacion de la contaminacion en el subsuelo por hidrocarburos derivados del petroleo en estaciones de servicio y unidades de suministro que comprende la utilizacion de una combinacion de tecnicas, tomografia electrica 2D, muestreo especifico para determinacion de compuestos organicos volatiles y semi-volatiles en el subsuelo y tecnicas geoquimicas que permiten una localizacion y cuantificacion fiable de la plumas de contaminacion y localizacion de tanques enterrados.

Machine translation: Method for detection and assessment of pollution in the subsurface petroleum hydrocarbons in service stations and supply units comprising the use of a combination of techniques, 2D **electrical tomography**, specific sampling for determination of volatile organic compounds and semi-volatiles in the subsurface and geochemical techniques that allow reliable localization and quantification of pollution plumes and locations of buried tanks.

Classifications:
International (IPC 8-9): G01V3/02 (Advanced/Invention)
CPC: G01V3/02



Family:

Publication number	Publication date	Application number	Application date
ES2393716 AA	20121227	ES20120031094	20120712
ES2393716 BA	20130820	ES20120031094	20120712

Priority:

ES20120031094 20120712

Probable Assignee: UNIV CARTAGENA POLITECNICA

Assignee(s): (std): UNIV CARTAGENA POLITECNICA ; UNIV POLITECNICA DE CARTAGENA

Assignee(s): UNIVERSIDAD POLITECNICA DE CARTAGENA

Inventor(s): (std): FAZ CANO ANGEL ; MARTINEZ PAGAN PEDRO ; ROSALES ARANDA ROSA MARIA

Inventor(s): ANGEL FAZ CANO ; PEDRO MARTINEZ PAGAN ; ROSA MARIA ROSALES ARANDA

Agent(s): TEMINO IGNACIO

Title: SEISMIC SURVEY DESIGN USING FULL WAVEFIELD INVERSION

Abstract: Source: US2016097870A Method for selecting an acquisition geometry for a seismic survey based on ability to resolve an a priori velocity model. Two or more candidate acquisition geometries are selected (301, 302), differing in areal coverage and cost to perform. Then compute a synthetic seismic dataset for each geometry using a detailed geometrical reference model of the subsurface (301). Invert the synthetic seismic datasets preferably using simultaneous source FWI, and preferably with Volume of Investigation constraints, to determine model updates (303, 304). Quantitatively assess the value of the additional traces in a fuller dataset relative to a subset (306), using one or more statistics based on the accuracy of the updated models, such as improved match to the reference model, better fit of seismic data, or rate of change in improvement with iterations. Inversions may be cascaded for further efficiency (314).

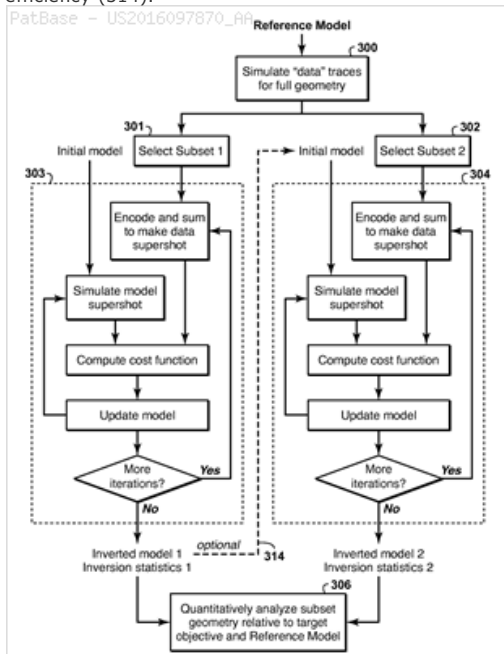
Classifications:

International (IPC 8-9): G01V1/28 (Advanced/Invention)

CPC: G01V1/282 G01V2210/667 G01V2210/679 G01V1/003

G01V1/3808 G01V2200/14 G01V2210/614 G01V2210/67

US: 703/2

**Family:**

Publication number	Publication date	Application number	Application date
US2016097870 AA	20160407	US20150797654	20150713

Priority:

US20140059541P 20141003 US20150797654 20150713

Probable Assignee: DOWNEY NATHAN

Assignee(s): (std): DOWNEY NATHAN ; KROHN CHRISTINE E ; ROUTH PARTHA S

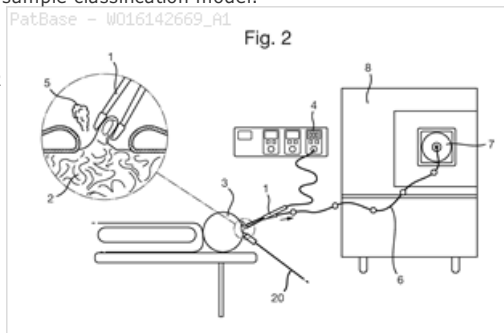
Inventor(s): (std): DOWNEY NATHAN ; KROHN CHRISTINE E ; ROUTH PARTHA S

Title: AMBIENT IONIZATION MASS SPECTROMETRY IMAGING PLATFORM FOR DIRECT MAPPING FROM BULK TISSUE

Abstract: A method of ion imaging is disclosed that includes automatically sampling a plurality of different locations on a sample (20) using a first device (21) which is arranged and adapted to generate aerosol, smoke or vapour from the sample (20). Mass spectral data and/or ion mobility data corresponding to each location is obtained and the obtained mass spectral data and/or ion mobility data is used to construct, train or improve a sample classification model.

Classifications:

International (IPC 8-9): A61B10/00 A61B10/02 A61B17/00
A61B18/00 A61B18/14 A61B18/18 A61B90/00 G01N1/02 G01N1/22
G01N27/62 G01N3/00 G01N33/02 G01N33/48 G01N33/68 G01N33/92
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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: MICROMASS LTD

Assignee(s): (std): MICROMASS LTD ; MICROMASS UK LTD

Assignee(s): KARANCSI TAMAS ; O BRIEN STEPHEN ; JONES EMRYS ; PRINGLE STEVEN DEREK ; HESS ANTHONY ; RICHARDSON KEITH ; TAKATS ZOLTAN ; SIMON DANIEL ; TRIVETT IAN ; SZALAY DANIEL ; BALOG JULIA ; CHUA ALVIN ; GODORHAZY LAJOS ; HENDERSON MATT

Inventor(s): (std): BALOG JULIA ; GOEDOERHAZY LAJOS ; JONES EMRYS ; KARANCSI TAMAS ; KINROSS JAMES ; LANGRIDGE JAMES IAN ; MORRIS MICHAEL RAYMOND ; NICHOLSON JEREMY K ; O BRIEN STEPHEN ; PRINGLE STEVEN DEREK ; RICHARDSON KEITH ; SIMON DANIEL ; SZALAY DANIEL ; TAKATS ZOLTAN ; TRIVETT IAN ; HESS ANTHONY ; HENDERSON MATT ; GODORHAZY LAJOS ; CHUA ALVIN ; BOLT FRANCES

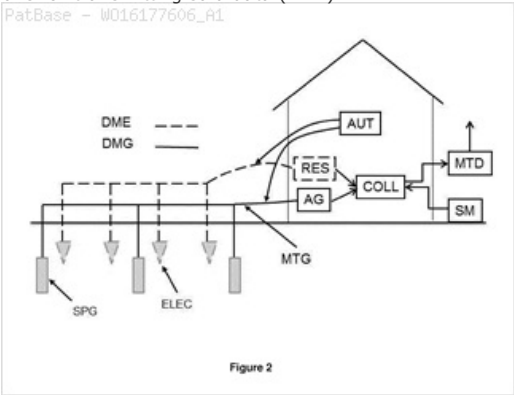
Agent(s): RIDOUT AND MAYBEE LLP; JEFFREY PHILIP MICHAEL; CHIVA ANDREW PETER

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

Title: FACILITY FOR MONITORING GEOLOGICAL GAS STORAGE SITES

Abstract: A facility for monitoring a geological storage site for storing a gas, such as CO2 or methane, comprises, in combination, at least one geochemical measurement device (DMG), comprising a plurality of gas sampling probes (SPG) connected to a gas analyser (AG), an **electrical** measurement device (DME) comprising a plurality of electrodes (ELEC) and a **resistivity** metre (RES), and a meteorological station (SM). The geochemical and **electrical** measurement devices are controlled by a logic controller (AUT). The geochemical and **electrical** measurement devices and the meteorological station are connected to a data collector (COLL) that is itself connected to means for transmitting said data (MTD).

Classifications:
International (IPC 8-9): B65G5/00 E21B41/00
E21B47/10 (Advanced/Invention)
CPC: E21B41/0064 E21B47/10 Y02C10/14



Family:

Publication number	Publication date	Application number	Application date
CA2983775 AA	20171023	CA20162983775	20160426
FR3035917 A1	20161111	FR20150053999	20150505
WO16177606 A1	20161110	WO2016EP59316	20160426

Priority:

FR20150053999 20150505 WO2016EP59316 20160426

Probable Assignee: IFP ENERGIES NOW

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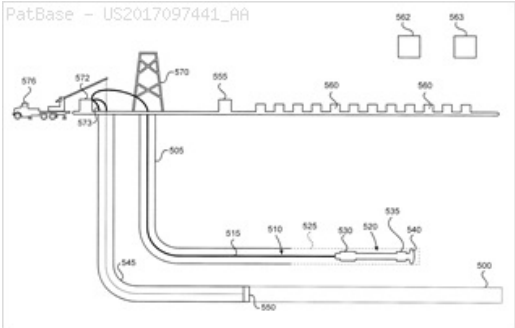
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX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

Title: SYSTEM AND METHOD FOR PERFORMING DISTANT GEOPHYSICAL SURVEY

Abstract: Source: US2017097441A A downhole drilling tool is adapted to be placed in a borehole formed in the earth. The downhole drilling tool has mounted thereto at least one of a transmitter for generating and a receiver for sensing at least one component of an electromagnetic field within a distant earth region. The tool also has a device configured to acquire subsurface data from the at least one component of the electromagnetic field; and a device configured to calculate a **resistivity** distribution of the distant earth region from the subsurface data. A geophysical survey is performed with a downhole drilling tool by transmitting at least one component of an electromagnetic field through the distant earth region; acquiring subsurface data from the at least one component of the electromagnetic field; and calculating a **resistivity** distribution of the distant earth region from the subsurface data.

Classifications:

International (IPC 8-9): E21B47/12 E21B49/00 E21B7/04 G01V3/26 G01V3/38 (Advanced/Invention)
CPC: G01V3/26 E21B49/00 E21B7/04 E21B47/122
US: 175/50



Family:

Publication number	Publication date	Application number	Application date
CA2944674 AA	20170406	CA20162944674	20161006
US2017097441 AA	20170406	US20160287262	20161006

Priority:

US20150237832P 20151006 US20150244403P 20151021 US20160287262 20161006

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