

Nicolas Vargas

Search history

Search 1: STAC=(crop*) (Results 170163)
Search 2: 1 and ((sensor w10 hierarc*) w10 (time or seconds)) (Results 0)
Search 3: 1 and ((sensor w20 hierarc*) w20 (time or seconds)) (Results 0)
Search 4: 1 and ((sensor* w20 hierarc*) w20 (time or seconds)) (Results 0)
Search 5: 1 and ((sensor* w10 (time or seconds)) w10 hierarc*) (Results 0)
Search 6: crop* and ((sensor* w10 (time or seconds)) w10 hierarc*) (Results 72)
Search 7: 6 and pd<20160212 (Results 0)
Search 8: crop* and ((sensor* w20 (time or seconds)) w20 hierarc*) (Results 74)
Search 9: 6 and pd<20160212 (Results 0)
Search 10: crop* and ((sensor* w10 (time or seconds)) w10 hierarc*) (Results 72)
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Search 13: 12 and (agricultur* or agronom*) (Results 3)
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Search 15: SFT=(crop* and hierarch* and agricult* and (sensor w10 (time or seconds))) (Results 182)
Search 16: SFT=(crop* and hierarch* and agricult* and (sensor w10 (time or seconds))) and PD<20160212 (Results 50)
Search 17: 16 and soil (Results 27)
Search 18: SFT=(crop* and agricult* and ((sensor w10 (time or seconds)) w10 sequentially)) and PD<20160212 (Results 1)
Search 19: SFT=(crop* and agricult* and (sensor w10 sequentially)) and PD<20160212 (Results 42)
Search 20: 19 and soil (Results 22)

1) Family number: 57481022 (US2016283791A)

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Title: METHOD, SYSTEM, AND MEDIUM HAVING STORED THEREON INSTRUCTIONS THAT CAUSE A PROCESSOR TO EXECUTE A METHOD FOR OBTAINING IMAGE INFORMATION OF AN ORGANISM COMPRISING A SET OF OPTICAL DATA

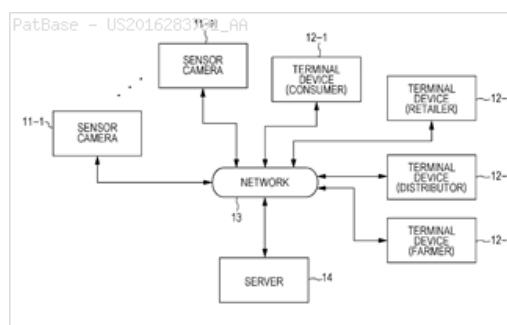
Abstract: The present disclosure relates to methods and systems for obtaining image information of an organism including a set of optical data; calculating a growth index based on the set of optical data; and calculating an anticipated harvest time based on the growth index, where the image information includes at least one of: (a) visible image data obtained from an image sensor and non-visible image data obtained from the image sensor, and (b) a set of image data from at least two image capture devices, where the at least two image capture devices capture the set of image data from at least two positions.

Classifications:

International (IPC 8-9): A01G7/00 G01C11/02 G01C21/00 G01J3/36 G01J3/51 G01N21/25 G01N21/27 G01N21/31 G01N21/35 G01N21/3563 G01N21/359 G01N33/00 G01N33/02 G06F17/00 G06K9/00 G06Q30/00 G06Q50/02 G06T7/00 H04N13/02 H04N5/33 (Advanced/Invention)

CPC: G01N21/251 G01N21/314 G01N21/359 G01N2021/0118 G01N2021/1797 G01N2021/3155 G01N2021/8466 G06Q30/00 G01N21/255 G01J3/36 G01J3/513 G01J2003/2826 G01N33/0098 G01N21/25 H04N5/332 G06T7/0004 G06T2207/30128 G06K9/00657 A01G7/00 G06Q50/02 H04N13/204 G01J3/51 G01C11/02

US: 382/110



Family:

Publication number	Publication date	Application number	Application date
AU2014245679 AA	20150820	AU20140245679	20140317
AU2014245679 BB	20170413	AU20140245679	20140317
BR112015024105 A2	20170718	BR20151124105	20140317
CN105308436 A	20160203	CN201480016948	20140317
EP2979079 A1	20160203	EP20140719877	20140317
IN05710CN2015 A	20160701	IN2015CN05710	20150918
JP2014183788 A2	20141002	JP20130062017	20130325
JP2016185156 A2	20161027	JP20160116252	20160610
JP5950166 B2	20160713	JP20130062017	20130325
JP6187639 B2	20170830	JP20160116252	20160610
KR20160018450 A	20160217	KR20157021071	20140317
RU2015139842 A	20170323	RU20150139842	20140317
RU2659883 C2	20180704	RU20150139842	20140317
TW201437626 A	20141001	TW20140102014	20140120
TWI615605 B	20180221	TW20140102014	20140120

US2016283791 AA	20160929	US20140777549	20140317
WO14156039 A1	20141002	WO2014JP01497	20140317

Priority:

JP20130062017 20130325 WO2014JP01497 20140317 JP20160116252 20160610

Probable Assignee: SONY CORP

Assignee(s): (std): SONI KORPOREJSHN ; SONY CORP

Inventor(s): (std): MORIO OGURA ; HIROFUMI SUMI ; SUMI KHIROFUMI ; JUE BOWEN ; SUMI HIROBUMI ; OGURA MORIO ; SUMI HIROFUMI

Agent(s): GRIFFITH HACK; MFG PATENTANWALTE MEYER WILDHAGEN MEGGLE FREUND GERHARD PARTG MBB; INAMOTO YOSHIO; OOO SOYUZPATENT; INAMOTO YOSHIO 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 KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 56726044 (US2014165890A)

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Title: SEEDING MACHINE FOR PLANTING MULTIPLE SEED VARIETIES AND METHOD OF CALIBRATING SAME

Abstract: A seeding machine, such as a row **crop** planter, is described which is adapted to switch between two or more seed varieties as the machine traverses a field. The control system uses a programmed quantity of seed representing a number of seeds in the seed meter that need to be substantially consumed once the flow of a first seed variety is stopped before introducing a second seed variety to minimize seed mixing. The seed quantity can be determined by a calibration process or published from the manufacturer or third parties. The seed quantity can also be part of a seeding prescription that includes assignment of where each seed variety is to be planted in a field. The seed quantity and the distance traveled to empty the meter can be used to optimize the planting operation including the machine direction which can also be part of the prescription.

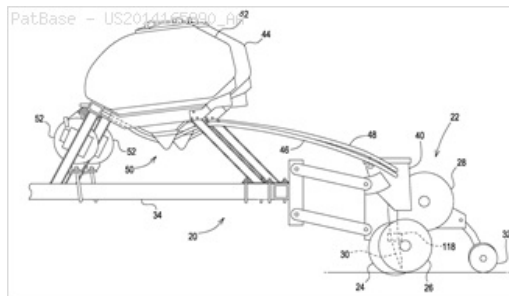
Classifications:

International (IPC 8-9): A01B79/00 A01C21/00 A01C7/04 A01C7/06 A01C7/10 A01C9/00 (Advanced/Invention)

CPC: A01C7/046 A01C7/107 A01C21/005 A01C7/04 A01C7/10

A01C21/00 A01B79/005

US: 1/1 111/14 111/170



Family:

Publication number	Publication date	Application number	Application date
AR093950 AA	20150701	AR2013P104663	20131212
BR112015011284 A2	20170711	BR20151111284	20131212
DE602013026718 D1	20171019	DE201360026718T	20131212
EP2931018 A1	20151021	EP20130862942	20131212
EP2931018 A4	20160803	EP20130862942	20131212
EP2931018 B1	20170913	EP20130862942	20131212
US2014165890 AA	20140619	US20120714980	20121214
US9179594 BB	20151110	US20120714980	20121214
WO14093575 A1	20140619	WO2013US74563	20131212

Priority:

US20120714980 20121214 EP20130862942 20131212 WO2013US74563 20131212

Probable Assignee: DEERE AND CO

Assignee(s): (std): DEERE AND CO

Assignee(s): DEERE AND CO MOLINE

Inventor(s): (std): CHARLES T GRAHAM ; GRAHAM CHARLES T

Inventor(s): GRAHAM CHARLES T COLORADO SPRINGS

Agent(s): REICHERT CHRISTIAN; GRAHAM CHARLES T

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

3) Family number: 57268077 (WO14129966A1)

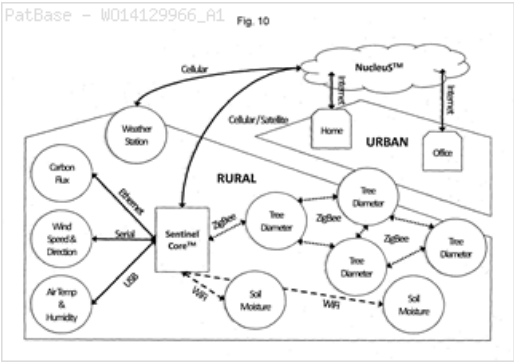
© PatBase

Title: DATA LOGGER AND SENTINEL PLATFORM FOR SENSOR NETWORK

Abstract: A data logger that comprises a central processing unit for signal processing, a memory device connected to the central processing unit for storing the data, an electronic circuit connected to both the central processing unit and the memory device, and a power supply further connected to the electronic circuit for providing electricity to the data logger. The electronic circuit comprises an universal interface for connecting different types of sensors via various communication modes. A Sentinel Platform comprises the data logger, a base station having a microcontroller connected to the data logger for data processing, and a data storage device connected to the data logger, the microcontroller or both for data storage.

Classifications:

International (IPC 8-9): G06F15/16 G06F17/40 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
WO14129966 A1	20140828	WO2014SG00004	20140110

Priority:

US20130769008P 20130225

Probable Assignee: BIOMACHINES PTE LTD

Assignee(s): (std): BIOMACHINES PTE LTD

Inventor(s): (std): YONG KEEN MUN KELVIN ; YEO HWEA JIE SVEN ; TAN ENG HWA ; WEI YANGSHENG VINCENT

Agent(s): SYNERGY IP PTE LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE 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

4) Family number: 23484146 (WO03089916A1)

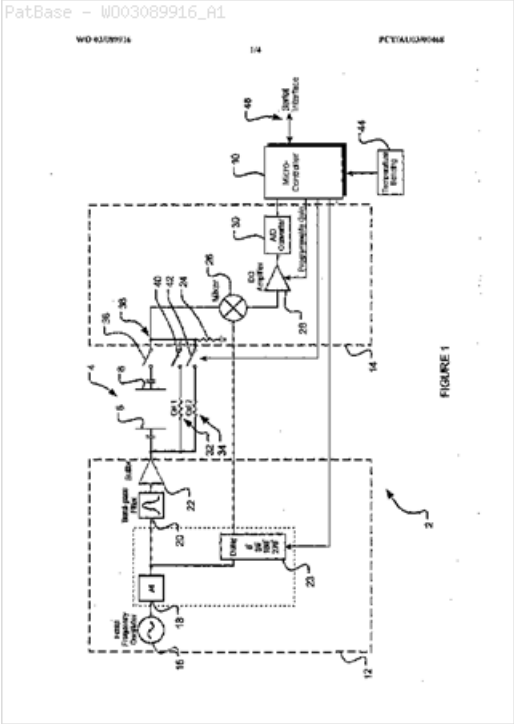
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Title: A SENSOR

Abstract: A sensor for sensing at least one parameter of a medium including sensing electrodes (6, 8) arranged to form a capacitor, each electrode having an insulating film (9) such that when the sensor is located in the medium each electrode is electrically insulated from the medium. The sensor also includes means for applying a measurement signal to the capacitor to obtain at an output a sensed signal, and means for processing the sensed signal to derive the at least one parameter of the medium. A capacitance value which is attributable to the insulating film is used to process the sensed signal. In a typical application the sensor is used for measuring moisture content and/or salinity of a **soil** medium.

Classifications:

International (ipc 8-9): G01N27/22 G01N33/24
G01R27/26 (Advanced/Invention);
G01N27/22 G01N33/24 G01R27/26 (Core/Invention)
International (ipc 1-7): G01N27/22 G01N33/24 G01R27/26
CPC: G01N27/223 G01N27/228 G01N33/246
European: G01N27/22C G01N33/24H S01N27/22F



Family:

Publication number	Publication date	Application number	Application date
AU180502 A0	20020530	AU2002PS01805	20020419
AU2002001805 A0	20020530	AU2002PS01805	20020419
AU2003218901 AA	20031103	AU20030218901	20030417
WO03089916 A1	20031030	WO2003AU00468	20030417

Priority:

AU2002PS01805 20020419 AU20030218901 20030417 WO2003AU00468 20030417

Probable Assignee: AGRILINK HOLDINGS PTY LTD

Assignee(s): (std): AGRILINK HOLDINGS PTY LTD ; CAVE RICHARD JOHN ; WILSON NEIL MCLAY

Inventor(s): (std): CAVE RICHARD JOHN ; WILSON NEIL MCLAY

Inventor(s): NEIL MCLAY WILSON ; RICHARD JOHN CAVE

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 NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

5) Family number: 55665230 (DE102012212516B4)

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Title: KALIBRIERUNG EINES OPTISCHEN SENSORS ZUR FERNERKUNDUNG

Abstract: Source: DE102012212516B4 [DE] Die Erfindung betrifft ein Verfahren und eine Anordnung zur Kalibrierung eines optischen Sensors (6) zur Fernerkundung einer Planetenoberflaeche, wobei der optische Sensor (6) waehrend einer Fernerkundung eines Kalibrierungsfeldes (4) an der Planetenoberflaeche Sensordaten fuer die Kalibrierung erzeugt, wobei das Kalibrierungsfeld (4) eine Mehrzahl von Kalibrierungskoepern (31; 61) aufweist, deren Hoehenpositionen in Bezug auf die Planetenoberflaeche mittels einer Bewegungseinrichtung eingestellt werden oder eingestellt worden sind, und wobei die Hoehenpositionen der Kalibrierungskoeper (31; 61) bei der Auswertung der von dem optischen Sensor (6) erzeugten Sensordaten zum Zwecke der Kalibrierung des optischen Sensors (6) beruecksichtigt wird.

Classifications:

International (IPC 8-9): G01B11/00 G01C11/00 G01S13/89

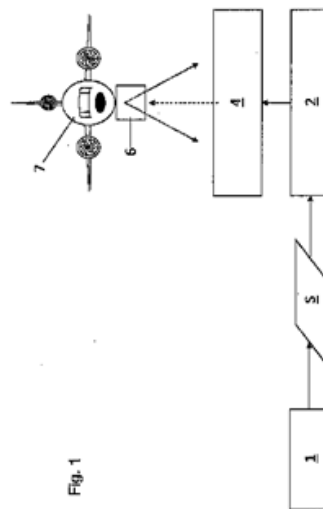
G01S17/89 G01S19/41 G03B37/00 (Advanced/Invention)

CPC: G01B11/00 G01B11/24 G01C11/34

PatBase - DE102012212516_A1

DE 10 2012 212 516 A1 2014.01.23

Anhängende Zeichnungen



Family:

Publication number	Publication date	Application number	Application date
DE102012212516 A1	20140123	DE201210212516	20120717
DE102012212516 B4	20140213	DE201210212516	20120717

Priority:

DE201210212516 20120717

Probable Assignee: DEUTSCH ZENTR LUFT AND RAUMFAHRT

Assignee(s): (std): DEUTSCH ZENTR LUFT AND RAUMFAHRT

Assignee(s): DEUTSCHES ZENTRUM F LUFT U RAUMFAHRT EV

Inventor(s): (std): BOERNER ANKO ; BORG ERIK ; PROF DR REULKE RALF

6) Family number: 15435370 (WO0138946A1)

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Title: IRRIGATION CONTROLLER SYSTEM AND METHOD

Abstract: A system and method for controlling the irrigation process responsive to a measured plant water content. There are three basic aspects to the invention: An irrigation control system using infrared remote sensing (5); an irrigation controller (4) with means for processing signals from infrared remote sensors (5) and other sensors (14), and for generating irrigation control signals responsive to the information received from the various sensors, including the remote sensors. The valve (12) is controlled from controller (4). The controller (4) controls the secondary valves (13), the fertilizer valve (22) and the fertilizer pumps (23). The irrigation control system uses data readings from IR sensors in two frequency bands.

Classifications:

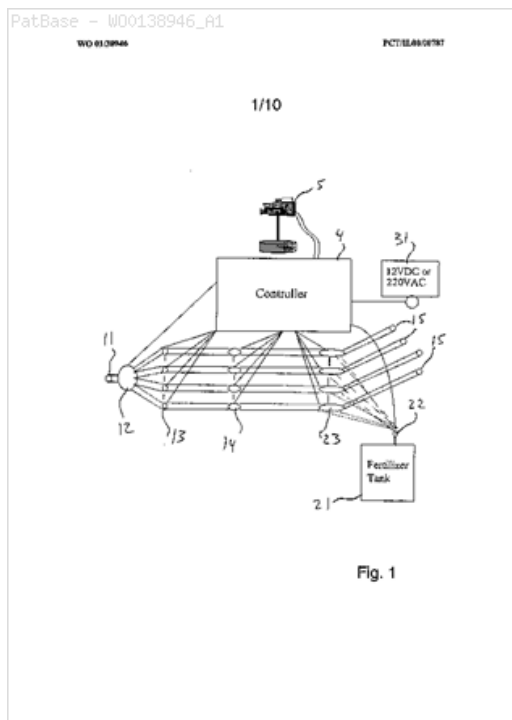
International (IPC 8-9): A01G25/16 G05D11/00 (Advanced/Invention);

A01G25/16 (Core/Invention)

International (IPC 1-7): A01G A01G27/00 G05D11/00

CPC: Y02A40/238 A01G25/167

European: A01G25/16D



Family:

Publication number	Publication date	Application number	Application date
AU200117273 A1	20010604	AU20010017273	20001126
AU200117273 A5	20010604	AU20010017273D	20001126
IL133165 A0	20010319	IL19990133165	19991126
WO0138946 A1	20010531	WO2000IL00787	20001126

Priority:

IL19990133165 19991126 WO2000IL00787 20001126

Probable Assignee: ZVI BARZILAY

Assignee(s): (std): BARZILAI ZVI ; SHARON YEHOShUA

Assignee(s): YEHOShUA SHARON ; ZVI BARZILAI ; ZVI BARZILAY

Inventor(s): (std): SHARON YEHOShUA ; BARZILAI ZVI

Inventor(s): ZVI BARZILAI ; YEHOShUA SHARON

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 CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

7) Family number: 11898413 (US5412219A)

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Title: Method for determining surface coverage by materials exhibiting different fluorescent properties

Abstract: An improved method for detecting, measuring, and distinguishing **crop** residue, live vegetation, and mineral **soil**. By measuring fluorescence in multiple bands, live and dead vegetation are distinguished. The surface of the ground is illuminated with ultraviolet radiation, inducing fluorescence in certain molecules. The emitted fluorescent emission induced by the ultraviolet radiation is measured by means of a fluorescence detector, consisting of a photodetector or video camera and filters. The spectral content of the emitted fluorescent emission is characterized at each point sampled, and the proportion of the sampled area covered by residue or vegetation is calculated.

Classifications:

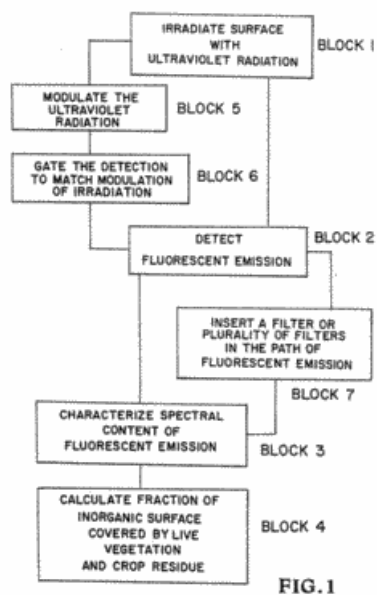
International (IPC 8-9): G01N21/64 (Advanced/Invention)

International (IPC 1-7): G01N21/64

CPC: G01N21/64 G01N2021/1797 G01N2021/6417

European: G01N21/64 S01N21/17Y3 S01N21/64G

US: 250/253 250/461.1 250/461.2

**Family:**

Publication number	Publication date	Application number	Application date
US5412219 A	19950502	US19930155605	19931122

Priority:

US19930155605 19931122

Probable Assignee: US ARMY**Assignee(s):** (std): US ARMY

Assignee(s): THE UNITED STATES OF AMERICA AS REPRESENTED BY THE ADMINISTRATOR OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION ; ADMINSTRATOR OF NATIONAL AERONAUTICS AND SPACE ADM ; AERONAUTICS AND SPACE ADMINSTRATION US ADMINSTRATO ; AERONAUTICS AND SPACE ADMINSTRATION US GOV ADMINST ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE

Inventor(s): (std): CHAPPELLE EMMETT W ; DAUGHTRY CRAIG S T ; MCMURTREY III JAMES E

8) Family number: 32087430 (US2005156066A)

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Title: IRRIGATION UNIT INCLUDING A POWER GENERATOR

Abstract: An irrigation unit (20) for irrigating an area (12) with a fluid (19) from a fluid source (18) includes a housing (200), a nozzle (220), an electronic component (221), and a power generator (230). The nozzle (220) is directly or indirectly secured to the housing (200) and the nozzle (220) is in fluid communication with the fluid source (18) so that fluid (19) from the fluid source (18) is transferred to the nozzle (220). The electronic component (221) is directly or indirectly secured to the housing (200). The power generator (230) generates electrical energy that is transferred to the electronic component (221). The power generator (230) directly transfers at least a portion of the electrical energy to the electronic component (221) of the irrigation unit (20). The electronic component (221) can be a power storage unit (222) for storing electrical energy for use by the irrigation unit (20).

Classifications:

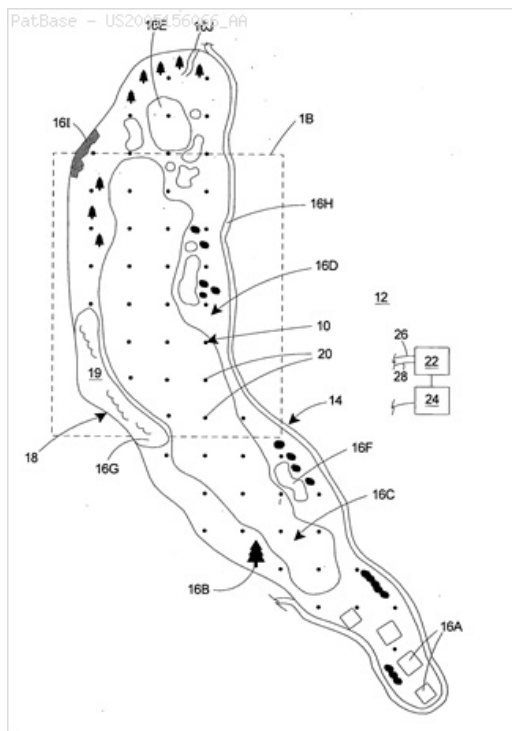
International (IPC 8-9): A01G25/00 A01G25/09 A01G25/092
 A01G25/16 A01G27/00 B05B1/28 B05B15/00 B05B15/04 B05B17/00
 B05B17/04 B05B3/00 B05B3/18 F17D5/02 G05B11/01 G05B19/18
 G05D7/00 G06F19/00 (Advanced/Invention);
 A01G25/00 A01G25/16 A01G27/00 B05B1/28 B05B15/00 B05B15/04
 B05B17/00 B05B17/04 B05B3/00 G05B11/01 G05B19/18 G05D7/00
 G06F19/00 (Core/Invention)

International (IPC 1-7): A01G25/00 B05B15/00 B05B3/00

CPC: B05B1/14 B05B3/14 Y10T137/0452 Y10T137/189 A01G25/16

European: A01G25/16 B05B3/14 L05B1/14

US: 137/15.11 137/78.3 15/250.01 15/256.5 239/1 239/104 239/106
 239/11 239/112 239/113 239/114 239/115 239/123 239/165 239/201
 239/203 239/207 239/225.1 239/227 239/242 239/243 239/255
 239/263 239/263.1 239/289 239/63 239/64 239/67 239/68 239/69
 239/70 239/71 239/723 239/73 700/11 700/12 700/14 700/19
 700/284 700/56 700/61 702/5



Family:

Publication number	Publication date	Application number	Application date
US2005156066 AA	20050721	US20040762134	20040120
US2005156067 AA	20050721	US20050038444	20050118
US2005156068 AA	20050721	US20050038763	20050118
US2006091245 AA	20060504	US20040978864	20041030
US2006102734 AA	20060518	US20040977916	20041030
US2006102739 AA	20060518	US20040977915	20041030
US2006131441 AA	20060622	US20040021757	20041222
US2006131442 AA	20060622	US20040021773	20041222
US7097113 BB	20060829	US20040762134	20040120
US7191955 BB	20070320	US20040021757	20041222
US7349763 BB	20080325	US20040977915	20041030
US7458521 BB	20081202	US20040978864	20041030
US7617992 BB	20091117	US20040977916	20041030
US7708206 BB	20100504	US20040021773	20041222
US7822511 BB	20101026	US20050038763	20050118
US8443822 BB	20130521	US20050038444	20050118
WO05069988 A2	20050804	WO2005US02173	20050119
WO05069988 A3	20060119	WO2005US02173	20050119

Priority:

US20040762134 20040120	US20040977915 20041030	US20040978864 20041030
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US20040021757 20041222	US20040021757 20041222	US20040021773 20041222
US20050038444 20050118	US20050038763 20050118	

Probable Assignee: IVANS NORMAN

Assignee(s): (std): IVANS NORMAN

Inventor(s): (std): IVANS NORMAN

Agent(s): LAW OFFICE OF STEVEN G ROEDER; THE LAW OFFICE OF STEVEN G ROEDER; TH LAW OFFICE OF STEVEN G ROEDER; STEVEN G; JAMES P; BRODER JAMES P; ROEDER STEVEN G; ROEDER AND BRODER LLP

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

9) Family number: 52100437 (US2015153227A)

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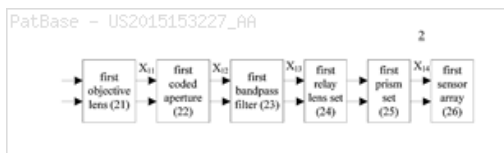
Title: COMPRESSIVE SENSING-BASED MULTISPECTRAL VIDEO IMAGER WITH DOUBLE CHANNELS AND IMAGING METHOD

Abstract: A compressive sensing-based multispectral video imager comprises a beamsplitter, a first light channel, a second light channel, and an image reconstruction processor; the beamsplitter is configured to divide the beam of an underlying image into a first light beam and a second light beam; the first light beam enters the first light channel, processed and sampled in the first light channel, to obtain a first mixing spectral image which is transferred to the image reconstruction processor; the second light beam enters the second light channel, processed and sampled in the second light channel, to obtain a second mixing spectral image which is transferred to the image reconstruction processor; the image reconstruction processor is configured to reconstruct the underlying spectral image based on the first mixing spectral image and the second mixing spectral image by using non-linear optimization method.

Classifications:

International (IPC 8-9): G01J3/02 G01J3/04 G01J3/28 H04N5/225

H04N5/232 (Advanced/Invention)
CPC: G01J3/2823 G01J2003/2826 G01J3/027 H04N5/2254
H04N5/23229
US: 702/189



Family:

Publication number	Publication date	Application number	Application date
CN102706450 A	20121003	CN201210193244	20120613
CN102706450 B	20140312	CN201210193244	20120613
US2015153227 AA	20150604	US20130407782	20130609
US9851252 BB	20171226	US20130407782	20130609
WO13185589 A1	20131219	WO2013CN077067	20130609

Priority:

CN201210193244 20120613 WO2013CN077067 20130609

Probable Assignee: XIDIAN UNIV

Assignee(s): (std): UNIV XIDIAN ; XIDIAN UNIV

Assignee(s): XIDIAN UNIVERSITY

Inventor(s): (std): LIU DANHUA ; WANG LIZHI ; GAO DAHUA ; SHI GUANGMING ; LI GUO ; LIU YANG ; YANG LIU ; LIZHI WANG ; DAHUA GAO ; DANHUA LIU ; GUANGMING SHI ; GUO LI

Agent(s): WORKMAN NYDEGGER; NTD UNIVATION INTELLECTUAL PROPERTY AGENCY LTD

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

10) Family number: 41457494 (US2010014096A)

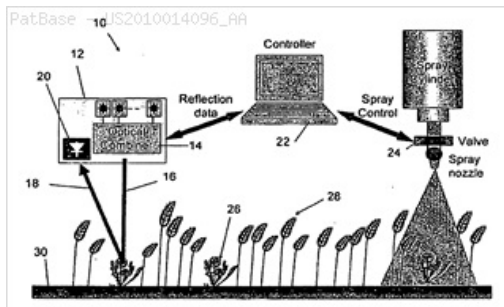
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Title: OPTICAL SENSING SYSTEM AND OPTICAL DEVICES THEREFOR

Abstract: A sensing system comprises a light source having three or more distinct wavelengths for illuminating a plurality of distinct areas in a field of view, a sensor for measuring the reflectance of the distinct areas at each of the distinct wavelengths, and an identifier for identifying at least one object in the field of view from the measured reflectance at each of the wavelengths.

Classifications:

International (IPC 8-9): A01M21/00 A01M21/04 A01M7/00 A1M21/04 A1M7/00 B07C5/342 G01B9/02 G01J3/42 G01N21/25 G01N21/35 G01N21/39 G01N21/55 G1N21/39 (Advanced/Invention); A01M21/00 (Advanced/Non-invention); A01M21/00 A01M7/00 G01B9/02 G01N21/25 G01N21/31 G01N21/55 (Core/Invention); A01M G01N (Subclass/Invention)
CPC: A01M21/00 G01N21/255 G01N2021/1797 G01N2021/8466 G01N2201/0691 G01N2201/0696
European: A01M21/00 G01N21/25C S01N201/069B S01N201/069P S01N21/17Y3 S01N21/84N
US: 356/445 356/445S 356/448 356/484 356/484P



Family:

Publication number	Publication date	Application number	Application date
AT551597 E	20120415	AT20070784717T	20070801
AU2007281027 AA	20080207	AU20070281027	20070801
AU2007281027 BB	20130207	AU20070281027	20070801
CA2659522 AA	20090130	CA20072659522	20070801
CA2659522 C	20170829	CA20072659522	20070801
DE602007021640 D1	20120524	DE200760021640T	20070801
DK2052236 T3	20120716	DK20070784717T	20070801
EP2052236 A1	20090429	EP20070784717	20070801
EP2052236 A4	20090819	EP20070784717	20070801
EP2052236 B1	20120328	EP20070784717	20070801
ES2395062 T3	20130207	ES20070784717T	20070801
US2010014096 AA	20100121	US20070375933	20070801
US8179533 BB	20120515	US20070375933	20070801
WO08014553 A1	20080207	WO2007AU01075	20070801
ZA200901433 A	20100526	ZA20090001433	20070801

Priority:

AU20060904147 20060801 AU20070281027 20070801 EP20070784717 20070801
WO2007AU01075 20070801

Probable Assignee: PHOTONIC DETECTION SYSTEMS PTY LTD

Assignee(s): (std): ALAMEH KAMAL ; PHOTONIC DETECTION SYSTEMS PTY ; PHOTONIC DETECTION SYSTEMS PTY LTD ; WEED CONTROL AUSTRALIA LTD

Assignee(s): PHOTONIC DETECTION SYSTEMS PTY LTD SUBIACO

Inventor(s): (std): ALAMEH KAMAL

Inventor(s): ALAMEH KAMAL JOONDALUP ; KAMAL ALAMEH

Agent(s): GRIFFITH HACK; MBM INTELLECTUAL PROPERTY LAW LLP; ANDRAE WESTENDORP PATENTANWAELTE PARTNERSCHAFT; MARSHALL CAROLINE; URIZAR JOSE ANTONIO; GRAYBEAL JACKSON LLP; JOSHUA

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

11) Family number: 60398495 (DE102014103965A1)

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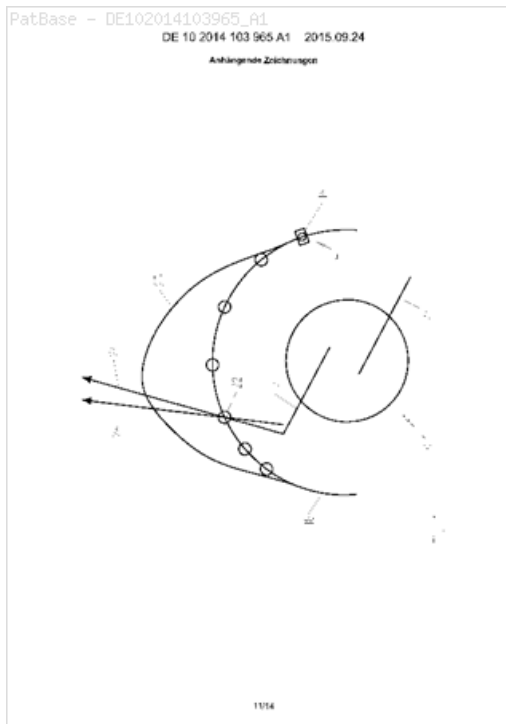
Title: STREUVORRICHTUNG UND VERFAHREN ZUM ERFASSEN VON STREUPARTIKELN IM STREUFAECHER EINER ENTSPRECHENDEN STREUVORRICHTUNG SPREADING DEVICE AND METHOD FOR DETECTING scattering particles IM STREUFAECHER AN APPROPRIATE spreading device (Machine translation)

Abstract: Source: DE102014103965A1 [DE] Die Erfindung stellt in einem Aspekt eine Streuvorrichtung mit wenigstens einer Streuscheibe zum Abschleudern von der Streuscheibe zugeführten Streupartikeln, insbesondere Dünger, in einem Streufächer über einen Abwurfwinkelbereich, mit einer Mehrzahl von Sensorelementen zum Erfassen der abgeschleuderten Streupartikeln, dadurch gekennzeichnet, dass wenigstens zwei Sensorelemente relativ zum Mittelpunkt der Streuscheibe in radialer Richtung beabstandet zueinander angeordnet sind. In weiteren Aspekten werden Verfahren zum Erfassen von Streupartikeln im Streufächer einer entsprechenden Streuvorrichtung bereitgestellt, wobei eine Flugrichtung und/oder ein korrigierter Abwurfwinkel bestimmt werden. **Machine translation:** The invention provides in one aspect a scattering device with at least one diffuser for spinning off of the lens supplied scattering particles, particularly fertilizer, in a Streufächer about a launch angle range, characterized by a plurality of sensor elements for detecting the spun-off scattering particles, characterized in that at least two sensor elements spaced relative to the center of the lens in the radial direction are arranged to each other. In further aspects, methods are provided in Streufächer a corresponding spreading device for detecting scattering particles, wherein a direction of flight and / or a corrected ejection angles are determined.

Classifications:

International (IPC 8-9): A01C17/00 (Advanced/Invention)

CPC: A01C17/008 A01C21/005



Family:

Publication number	Publication date	Application number	Application date
DE102014103965 A1	20150924	DE201410103965	20140324

Priority:

DE201410103965 20140324

Probable Assignee: AMAZONEN WERKE DREYER H
Assignee(s): (std): AMAZONEN WERKE DREYER H
Assignee(s): AMAZONEN WERKE H DREYER GMBH AND CO KG
Inventor(s): (std): WESSELS THOMAS

12) Family number: 43731651 (RU2369065C)

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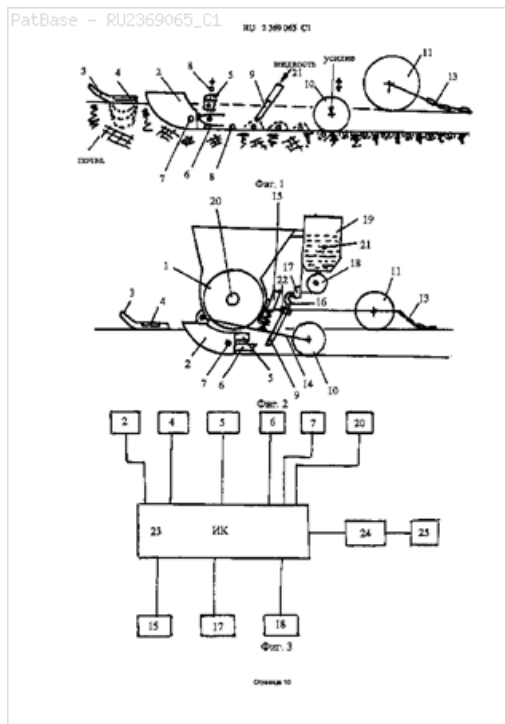
Title: METHOD AND DEVICE FOR TILLED **CROPS** SOWING

Abstract: FIELD: **agriculture**. SUBSTANCE: method and device for sowing tilled **crops** involves the following operations. The **soil** humidity at the depth of up to 10 cm is defined before making drill furrows. The drill furrow is made and the seeds are sown into it with simultaneous measurement of the **soil** humidity at the seed sowing depth and **soil** temperature in the furrow. In case the **soil** humidity measured twice before and during sowing is less than the optimal one, a solution of activated liquid for bringing the **soil** into the condition ensuring maximal field germination of seeds is introduced to the drill furrow. Afterwards the seeds are compacted in the furrow with the adjusted force of 350-700 g/cm² and are simultaneously covered. Then the **soil** above the furrow is compacted with the pressure not exceeding 35-50 g/cm². The smaller pressure is chosen in case the **soil** humidity is more than the optimal one. **Soil** smoothing over the furrow follows. The device for the method implementation comprises a clod sweep, a coulter, a seed pipeline, a nozzle to introduce activated liquid portions to the **soil**, a drilling unit with a cell disc, a compacting wheel, a compacting roller and a smoothing harrow. The clod sweep is mounted before the coulter on an independent suspension member and a **soil** humidity capacitive **sensor** is set in its casing. The coulter is **sequentially** followed by the nozzle to introduce the activated liquid portions to the **soil** and the compacting

wheel on the independent spring-loaded suspension member combined with the spring tension controller. The wheel tyre is matching the furrow profile. The nozzle is connected to the electric valve and electric pump for the activated liquid tank with the help of a pipe passing through a toroidal magnet. Additionally the drilling disc is fitted by a rotation sensor, the seed pipeline - by a combined seed sowing capacitive sensor, the coulter - by a temperature measuring sensor. The sensor of **soil** humidity in terms of its ohmic resistance is jointed to the coulter end face under the seed pipeline. All sensors, the spring tension controller, electric valve and electric pump are connected to an integrated chip to specify optimal **soil** humidity and generate managing signals for the spring tension controller, electric valve and electric pump. EFFECT: invention allows for the increase of the seed field germination and uniformity of the seed distribution in the furrow as well as for the reduction of the liquid introduced to the furrow. 3 cl, 3 dwg, 1 tbl

Classifications:

International (IPC 8-9): A01C7/00 A01C7/04 (Advanced/Invention);
A01C7/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
RU2008100804 A	20090720	RU20080100804	20080109
RU2369065 C1	20091010	RU20080100804	20080109

Priority:

RU20080100804 20080109

Probable Assignee: G NAUCHNOE UCHREZHDENIE VRNII

Assignee(s): (std): G NAUCHNOE UCHREZHDENIE VRNII ; STATE SCIENTIFIC INSTITUTION

Assignee(s): GOSUDARSTVENNOE NAUCHNOE UCHREZHDENIE VSEROSSIJSKIY NAUCHNO ISSLEDOVATEL SKIJ INST MEKHANIZATSII SEL SKOGO KHOZJAJSTVA GNU VIM ROSSEL KHOZAKADEMII ; GOSUDARSTVENNOE NAUCHNOE UCHREZHDENIE VSEROSSIJSKIY NAUCHNO ISSLEDOVATEL SKIJ INSTITUT MEKHANIZATSII SEL SKOGO KHOZJAJSTVA GNU VIM ROSSEL KHOZAKADEMII

Inventor(s): (std): ALDOKHIN VALERIY GEORGIEVICH ; GONCHAROV NIKOLAJ TIMOFEEVICH ; KHOROSHENKOV VJACHESLAV KUZ MICH ; LICHMAN GENNADIY IVANOVICH ; MARCHENKO NIKOLAJ MIKHAILOVICH ; MIKHEEV VLADIMIR VASIL EVICH

Inventor(s): MIKHEEV VLADIMIR VASIL'EVICH ; KHOROSHENKOV VJACHESLAV KUZ'MICH

13) Family number: 54554660 (US2013217598A)

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Title: MICROPROCESSOR-CONTROLLED MICROFLUIDIC PLATFORM FOR PATHOGEN, TOXIN, BIOMARKER, AND CHEMICAL DETECTION WITH REMOVABLE UPDATABLE SENSOR ARRAY FOR FOOD AND WATER SAFETY, MEDICAL, AND LABORATORY APPLICATIONS

Abstract: The invention provides a platform technology with rich ability to flexibly perform, create, deploy, maintain, and update a wide range of panels, assay, array, and/or sequence of tests for a wide range of substances and pathogens. The invention provides a unifying framework for widely-ranging miniature sensor implementation, fluidic/gas interfacing, electrical interfaces and optical interfaces, and further by collocating, allowing the integration a large number highly-selective sensors and chemical sensors-together as needed with appropriately selected supplemental sensors (for example temperature, pH, selective ions, etc.), into a common readily-manufacturable framework. The diverse sensor arrays give rise to statistical enhancing through novel statistical processing approaches. The invention is deployable and useable in a wide range of situations previously unavailable, and addresses many otherwise problematic aspects of field testing for food safety, water safety, epidemic outbreaks, routine diagnosis, and disease monitoring.

Classifications:

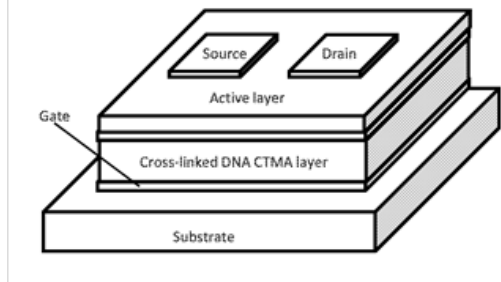
International (IPC 8-9): B01L9/00 G01N15/06 G01N21/01

G01N27/30 G01N33/00 G01N33/48 G01N33/50

G01N33/543 (Advanced/Invention)

CPC: G01N33/54373

US: 422/68.1 422/82.01 422/82.05 435/287.2 435/287.9 506/16 506/18 506/19

**Family:**

Publication number	Publication date	Application number	Application date
US2013217598 AA	20130822	US20130761142	20130206
US10274487 BB	20190430	US20130761142	20130206
WO13119719 A1	20130815	WO2013US25002	20130206

Priority:

US20120595651P 20120206	US20120595681P 20120206	US20120596016P 20120207
US20120595973P 20120207	US20120595692P 20120207	US20120614229P 20120322
US20120614253P 20120322	US20130761142 20130206	

Probable Assignee: NRI R AND D PATENT LICENSING LLC**Assignee(s):** (std): LUDWIG LESTER F ; NRI R AND D PATENT LICENSING LLC ; TIPGUNLAKANT POONCHARAS**Assignee(s):** LUDWIG LESTER ; PBLM ADVT LLC**Inventor(s):** (std): TIPGUNLAKANT POONCHARAS ; LUDWIG LESTER F**Agent(s):** PROCOPIO CORY HARGREAVES AND SAVITCH LLP; XIAO JEAN 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 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 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

14) Family number: 61543675 (US2017205337A)

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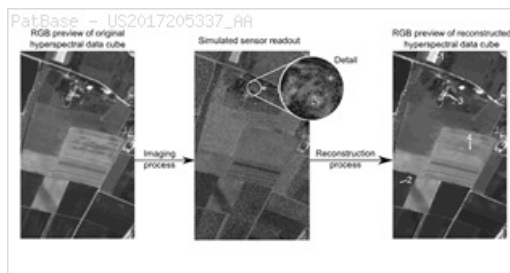
Title: COMPACT MULTIFUNCTIONAL SYSTEM FOR IMAGING SPECTROSCOPY

Abstract: A method for obtaining spectral imaging data comprises at least the steps of receiving a sample set of data generated by sampling a spectral property of an image of an object in a spatial basis, wherein the sampling of the spectral property of the image of the object comprises providing a Spectral Filter Array (SFA) by arranging a plurality of SFA elements together to form a surface; configuring each SFA element of the plurality of SFA elements to filter one or more spectral bandwidths centered each at specific wavelengths corresponding to that SFA element, whereby all of the plurality of SFA elements taken together cover a determined spectral range; and setting the specific wavelengths of each SFA element of the plurality of SFA elements on the surface such to obtain a uniform and aperiodic spatial distribution of all of the plurality of SFA elements across the surface. The sampling of the spectral property of the image of the object further comprises providing an image sensor configured to record at each pixel the light filtered by one of the plurality of SFA elements or a subset of the plurality of SFA elements thereby producing one intensity value of light filtered by the one of the plurality of elements or the subset of the plurality of SFA elements per pixel; forming the image of the object on the SFA through a lens or group of lenses; and recording for all of the pixels of the image sensor the spectrally filtered intensity values thereby obtaining a 2-dimensional array of the intensity values corresponding to the image of the object. The method for obtaining spectral imaging data further comprises the step of reconstructing a full 3 dimensional spectral data cube of the imaged object from the sampled 2-dimensional array.

Classifications:

International (IPC 8-9): G01J3/02 G01J3/28 G01J3/36 G01J3/51 G01N21/31 G06K9/00 G06T17/05 H04N13/02 H04N13/214 H04N5/225 H04N5/232 H04N5/33 (Advanced/Invention)

CPC: G01N21/31 G06K9/00657 G06T17/05 G06K2009/00644 H04N13/214 G01J3/0229 G01J3/027 G01J3/2823 G01J2003/2826 G06K9/0063

US: 348/43**Family:**

Publication number	Publication date	Application number	Application date
EP3172698 A1	20170531	EP20150767257	20150724
JP2017526910 T2	20170914	JP20170503852T	20150724
US2017205337 AA	20170720	US20150326511	20150724
US10274420 BB	20190430	US20150326511	20150724
WO16012980 A1	20160128	WO2015IB55614	20150724

Priority:

WO2014IB63366 20140724	WO2015IB55614 20150724
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Probable Assignee: ECOLE POLYTECH

Assignee(s): (std): ECOLE POLYTECH ; ECOLE POLYTECHNIQUE FED DE LAUSANNE EPFL ; ECOLE POLYTECHNIQUE FED LAUSANNE EPFL ; ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE EPFL

Assignee(s): ECOLE POLYTECHNIQUE FEDERAL DE LAUSANNE EPFL**Inventor(s):** (std): AKHTMAN YOSEF ; CONSTANTIN DRAGOS**Agent(s):** WEIHS BRUNO KONRAD; ANDRE ROLAND SA; SCHIBLI NIKOLAUS; WEIHS BRUNO

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

15) Family number: 51904832 (DE102011005400B4)

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Title: Anordnung und Verfahren zur Abschaetzung des Fuellgrades beim ueberladen landwirtschaftlichen Ernteguts von einer Erntemaschine auf ein Transportfahrzeug

Abstract: Source: DE102011005400B4 [DE] Anordnung zur Abschaetzung des Fuellgrades beim ueberladen landwirtschaftlichen Ernteguts von einer Erntemaschine (10) auf ein Transportfahrzeug (12), mit: einer ueberladeeinrichtung (40) der Erntemaschine (10), die eingerichtet und betreibbar ist, einer vorgegebenen Beladestrategie folgend sukzessive unterschiedliche Beladepunkte (P1 bis P10) eines Ladebehaelters (18) des Transportfahrzeugs mit Erntegut zu beaufschlagen, einem Durchsatzsensor (118) zur Erfassung des jeweiligen Durchsatzes der Erntemaschine (10), und einer Rechneereinrichtung (112), die signaluebertragend mit dem Durchsatzsensor (118) verbunden und programmiert ist, anhand der bei der Befuellung des Ladebehaelters (18) entsprechend der Beladestrategie sukzessive angesteuerten Beladepunkte (P1-P10) und der Signale des Durchsatzsensors (118) nacheinander jeweils nur fuer die Mittelpunkte eines virtuellen, ueber den Ladebehaelter (18) gelegten, aus Zellen (Z) aufgebauten Gitters (138) unter Verwendung von Modellen fuer das Fliessverhalten des Ernteguts in die der jeweils befuellten Zelle benachbarte Zellen (Z) des Gitters (138), die nicht den Beladepunkten (P1-P10) entsprechen und des Fuellstands der der jeweils befuellten Zelle (Z) benachbarten Zellen (Z) den aktuellen Fuellstand mit Erntegut zu berechnen.

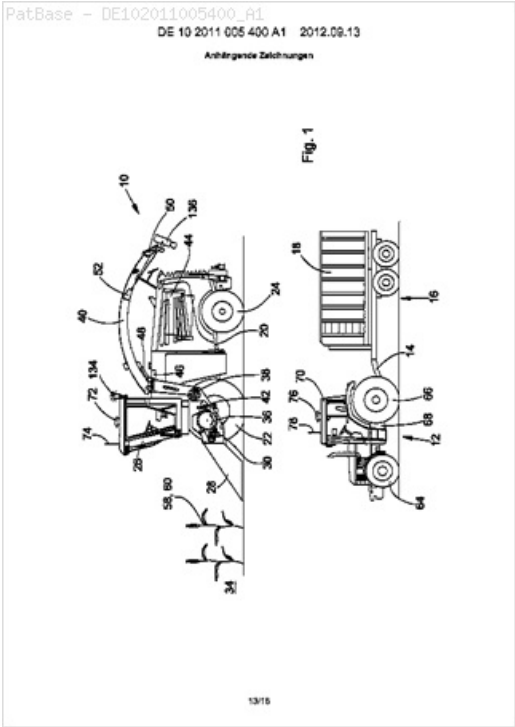
Classifications:

International (IPC 8-9): A01D41/127 A01F12/60 A01F15/08 (Advanced/Invention)

International (IPC 1-7): A01D43/073 A01D43/08

CPC: A01D43/087

European: A01D43/08D2



Family:

Publication number	Publication date	Application number	Application date
BE1020086 AD	20130402	BE20120000111	20120228
DE102011005400 A1	20120913	DE201110005400	20110311
DE102011005400 B4	20150528	DE201110005400	20110311

Priority:

DE201110005400 20110311

Probable Assignee: DEERE AND CO

Assignee(s): (std): DEERE AND CO

Assignee(s): DEERE AND COMPANY

Inventor(s): (std): BECK VOLKER ; ZAMETZER JOHANNES ; BECK FOLKER

16) Family number: 28138837 (US2001054903A)

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Title: METHOD AND APPARATUS FOR MEASURING PARAMETERS OF MATERIAL

Abstract: A method and apparatus for measuring at least one parameter of material are disclosed herein. The method includes generating multiple frequency signals having frequencies selectable by control signals, combining the multiple frequency signals into a combined frequency signal having multiple frequency components, and applying the combined frequency signal as an excitation signal to a sensing element. The frequency response of the material is determined at each of the multiple frequencies using output signals from the sensing element, and a frequency analysis is performed to determine the parameters of the material. The sensing element may include a capaciflector sensor located non-intrusively along the surface of a conveyor. However, other sensing elements such as capacitive, resistive and inductive elements may be used. The parameters being measured may include mass flow rate and moisture content. The apparatus includes a frequency generating circuit for generating a frequency signal having multiple frequency components, a sensing circuit which applies the frequency signal as an excitation signal to a sensing element, a signal conditioning circuit which determines the frequency response of the material at the multiple frequencies based upon output signals from the sensing element, and a signal processing circuit for performing a frequency analysis. The apparatus may be used to measure parameters of material

being moved by a vehicle-mounted conveyor. A pink or white noise generator may be used for the frequency generating circuit.

Classifications:

International (IPC 8-9): G01F1/64 G01F1/76

G01N27/22 (Advanced/Invention);

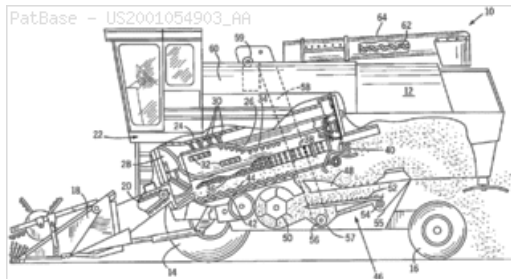
G01F1/56 G01F1/76 G01N27/22 (Core/Invention)

International (IPC 1-7): A01D75/18 A01F12/16 A01F21/00 G01R27/26

CPC: A01D41/1272 A01D41/1277 G01N27/223 G01F1/64 G01F1/76

European: G01F1/64 G01F1/76 G01N27/22C

US: 324/663 324/664 324/664P 324/667 324/667P 324/688 324/689 460/7



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

18) Family number: 31366846 (US2004231575A)

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Title: SYSTEMS AND METHODS FOR FLUID DISPENSING

Abstract: Systems and methods are disclosed for dispensing fluids. The systems can include a sensor operable to detect when an object passes a first location as the object moves to a second location. The systems can also include a fluid dispenser operable to dispense fluid at the second location. In addition, the systems can include a control unit in communication with the sensor and the fluid dispenser. The control unit can receive information from the sensor that the object has passed the first location and to control the fluid dispenser to dispense fluid at the second location at a predetermined time after the object passes the first location.

Classifications:

International (IPC 8-9): A01C23/00 A01C7/06 A01C7/10 B05B17/00 B67B7/00 B67D5/08 B67D5/14 B67D7/08

B67D7/14 (Advanced/Invention);

A01C23/00 A01C7/00 A01C7/08 B05B17/00 B67B7/00

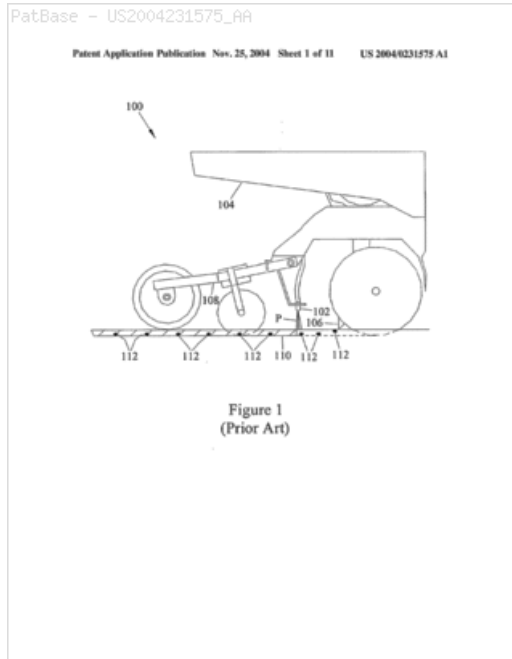
B67D7/08 (Core/Invention)

International (IPC 1-7): A01C23/00 A01C7/00 A01C9/00

CPC: Y10S111/90 Y10S111/904 A01C1/06 A01C7/105 A01C7/06

European: A01C23/00 A01C7/06 A01C7/10B1

US: 111/118 111/127 111/900 111/904 222/1 222/14 222/56 222/57 239/1



Family:

Publication number	Publication date	Application number	Application date
US2004231575 AA	20041125	US20040831079	20040423
US2008202398 AA	20080828	US20080150772	20080501
US7370589 BB	20080513	US20040831079	20040423
US8074585 BB	20111213	US20080150772	20080501

Priority:

US20030465047P 20030424 US20040831079 20040423 US20080150772 20080501

Probable Assignee: OF TENNESSEE RESEARCH FOUNDATION UNIV

Assignee(s): (std): HANCOCK JOHN H ; MOODY FRED H ; NEWMAN MELVIN A ; UNIV TENNESSEE RES FOUNDATION ; WILKERSON JOHN B

Assignee(s): UNIVERSITY OF TENNESSEE RESEARCH FOUNDATION ; OF TENNESSEE RESEARCH FOUNDATION UNIV ; TENNESSEE RESEARCH FOUNDATION UNIV ; THE UNIVERSITY OF TENNESSEE RESEARCH FOUNDATION

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Agent(s): JENKINS WILSON TAYLOR AND HUNT P A; JENKINS WILSON TAYLOR AND HUNT PA

19) Family number: 60397879 (US2015271876A)

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Title: SYSTEMS AND METHODS FOR WARMING PLANTS

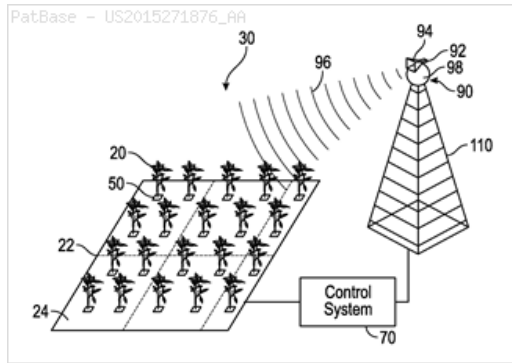
Abstract: A plant warming system includes a sensor configured to acquire temperature data representative of a temperature of a plant, a heating system including an antenna configured to direct microwaves toward the plant, and a control system configured to control operation of the heating system based on the temperature data.

Classifications:

International (IPC 8-9): H05B1/02 H05B6/64 (Advanced/Invention)

CPC: H05B6/645 H05B6/80

US: 219/702



Family:

Publication number	Publication date	Application number	Application date
US2015271876 AA	20150924	US20140223682	20140324

Priority:

US20140223682 20140324

Probable Assignee: ELWHA LLC

Assignee(s): (std): ELWHA LLC

Inventor(s): (std): TEGREENE CLARENCE T ; BOWERS JEFFREY A ; WOOD JR LOWELL L ; HYDE RODERICK A ; MYHRVOLD NATHAN P ; WHITMER CHARLES ; KARE JORDIN T ; SMITH DAVID R ; TUCKERMAN DAVID B ; KUNDTZ NATHAN ; PENDRY JOHN B ; HANNIGAN RUSSELL J

20) Family number: 34249894 (US2007046936A)

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Title: COLOR MEASUREMENT USING COMPACT DEVICE

Abstract: Color measurement using compact devices is described herein. A color measurement device can include a diffraction grating that receives light reflected from a surface whose color is being measured. The diffraction grating is responsive to a control signal to split selected components from the reflected light and to admit the components in sequence to a sensor. The components can correspond to a selected wavelength or frequency of the reflected light. The sensor measures the energy or power level of each of the admitted components. The device can support determining a spectral representation of the color of the surface by generating output signals representing the various energy or power levels of each component of the light reflected from the surface.

Classifications:

International (IPC 8-9): G01J3/28 G02B5/18 (Advanced/Invention);

G01J3/28 G02B5/18 (Core/Invention)

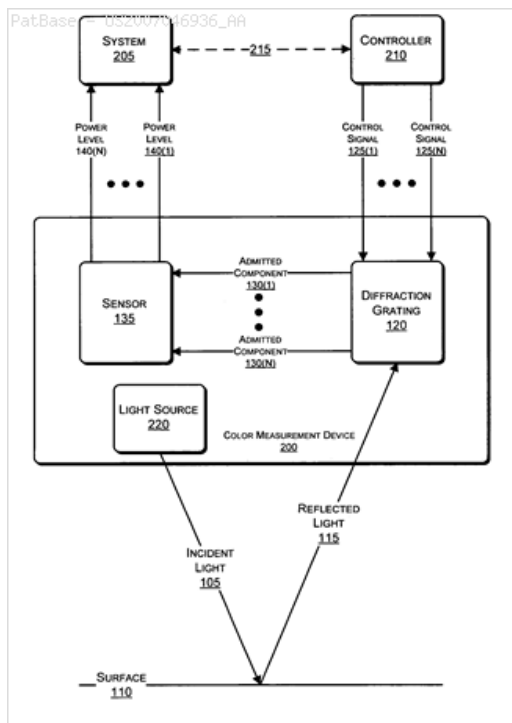
CPC: G01J3/18 G01J3/02 G01J3/06 G01J3/502 G01J2003/064

G02B5/1828 G01J3/0256 G01J3/0272

European: G01J3/02 G01J3/02C G01J3/02H G01J3/06 G01J3/18

G01J3/50C S01J3/06D S02B5/18F

US: 356/326 356/328 356/328P 356/402 356/425 359/573 359/573S



Family:

Publication number	Publication date	Application number	Application date
US2007046936 AA	20070301	US20050217070	20050831
US7426029 BB	20080916	US20050217070	20050831

Priority:

US20050217070 20050831

Probable Assignee: MICROSOFT CORP

Assignee(s): (std): MICROSOFT CORP

Assignee(s): MICROSOFT TECHNOLOGY LICENSING LLC

Inventor(s): (std): MAUZY CHARLES A ; SCHWARTZ JONATHAN R ; STARKWEATHER GARY K ; STOKES MICHAEL D

Inventor(s): MAUZY CHARLES ; STOKES MICHAEL ; STARKWEATHER GARY ; SCHWARTZ JONATHAN

21) Family number: 31392938 (US2007273394A)

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Title: ENVIRONMENTAL SENSOR

Abstract: Multi functional sensors are described. A silicon based sensor utilizes metal layers arranged as resistors around a central pair of resistors separated by a humidity sensitive polymer with one of the central resistors being a heater. This enables temperature humidity wind speed and direction to be measured. In another embodiment an array of resistors is printed onto a flexible substrate to form the basis of an array of sensors. A **soil** moisture sensor, which is also useful as a leaf wetness sensor, incorporates a novel self calibrating capacitive sensor structure. The flexible substrate is rolled into a stake that can be inserted in the **soil** so that below ground sensors measure **soil** moisture and above ground sensors measure temperature, light, humidity, wind speed and direction.

Classifications:

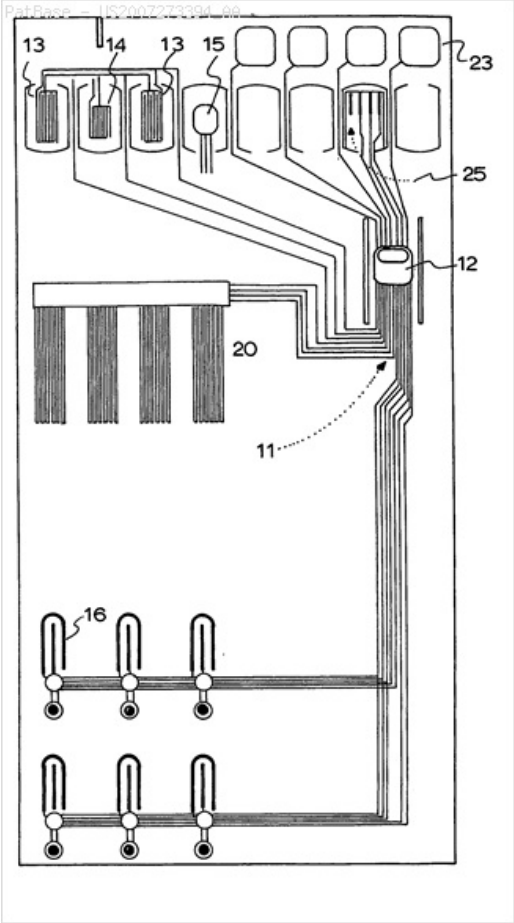
International (IPC 8-9): A01G25/16 G01D18/00 G01D21/02 G01F1/68 G01F1/684 G01F1/69 G01F1/692 G01N27/22 G01P13/02 G01P5/12 G01R27/26 (Advanced/Invention); A01G25/16 G01D18/00 G01D21/02 G01F1/68 G01F1/684 G01N27/22 G01P13/02 G01P5/10 G01R27/26 (Core/Invention)

International (IPC 1-7): G01D21/02 G01N27/22

CPC: G01N33/246 A01G25/167 G01D21/02 G01F1/6845 G01F1/692 G01N27/223 G01P5/12 G01P13/02

European: A01G25/16D G01D21/02 G01F1/684M G01F1/692 G01N27/22C G01P13/02 G01P5/12

US: 324/664 73/866.1



Family:

Publication number	Publication date	Application number	Application date
AU2003902836 A0	20030626	AU20030902836	20030606
AU2004245574 AA	20041216	AU20040245574	20040607
AU2004245574 BB	20070712	AU20040245574	20040607
AU2007205823 AA	20070906	AU20070205823	20070817
CN1802552 A	20060712	CN200480015791	20040607
EP1631794 A1	20060308	EP20040736183	20040607
EP1631794 A4	20061004	EP20040736183	20040607
IN02748KN2005 A	20061020	IN2005KN02748	20051230
JP2006527356 T2	20061130	JP20060508081T	20040607
US2007273394 AA	20071129	US20040558695	20040607
WO04109238 A1	20041216	WO2004AU00744	20040607

Priority:

AU20030902836 20030606 AU20040245574 20040607 WO2004AU00744 20040607
AU20070205823 20070817

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

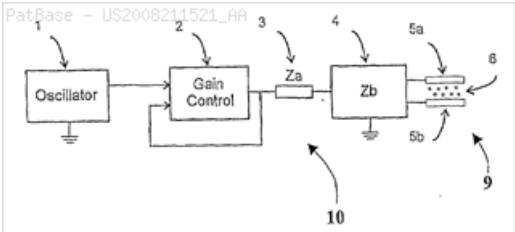
22) Family number: 31576953 (US2008211521A) © PatBase

Title: MOISTURE CONTENT SENSOR AND RELATED METHODS

Abstract: A moisture content sensor comprising a signal source (400) arranged to provide a signal, a probe (9) arranged to inject the signal into a medium (6) in which the moisture content is to be measured, a complex impedance (4) placed between the probe (9) and the signal source (400) and sensing electronics (7) arranged to monitor the signal at a point between the signal source (400) and the complex impedance (4) and generate a primary measurement therefrom which is indicative of the moisture content of the medium (6).

Classifications:

International (IPC 8-9): G01N27/02 G01N27/22 G01R27/08 G01R27/26 (Advanced/Invention); G01N33/24 (Advanced/Non-invention); G01N27/02 G01N27/22 G01R27/08 (Core/Invention); G01N33/24 (Core/Non-invention)
CPC: G01N27/048 G01N33/246
European: G01N27/02 G01N33/24H
US: 324/664 324/694 324/696 324/696P



Family:

Publication number	Publication date	Application number	Application date
AT520020 E	20110815	AT20050824546T	20051219
AU2005315407 AA	20060622	AU20050315407	20051219
AU2005315407 BB	20110512	AU20050315407	20051219
CN101080631 A	20071128	CN200580043597	20051219
CN101080631 B	20120328	CN200580043597	20051219
DE602005029499 D1	20111006	DE200560029499T	20051219
EP1836483 A1	20070926	EP20050824546	20051219
EP1836483 B1	20110810	EP20050824546	20051219
GB200427659 A0	20050119	GB20040027659	20041217
US2008211521 AA	20080904	US20050722059	20051219
US7944220 BB	20110517	US20050722059	20051219
WO06064266 A1	20060622	WO2005GB04886	20051219

Priority:

GB20040027659 20041217 EP20050824546 20051219 WO2005GB04886 20051219

Probable Assignee: DELTA T DEVICES LTD

Assignee(s): (std): DELTA T DEVICES LTD ; LOCK GARY MICHAEL
Assignee(s): DELTA T DEVICES LIMITED ; DELTA T DEVICES LTD BURWELL
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Inventor(s): LOCK GARY MICHAEL FELTHAM ; GARY MICHAEL LOCK
Agent(s): GRIFFITH HACK; PATENTANWALTE MELDAU STRAUSS FLOETOTTO; GOSNALL TOBY; CARSTENS AND CAHOON LLP; DAVID W; STEVEN H

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