

CPC**COOPERATIVE PATENT CLASSIFICATION****G01V**

GEOPHYSICS; GRAVITATIONAL MEASUREMENTS; DETECTING MASSES OR OBJECTS (detecting or locating foreign bodies for diagnostic, surgical or person-identification purposes A61B; means for indicating the location of accidentally buried, e.g. snow-buried persons [A63B 29/02](#); investigating or analysing earth materials by determining their chemical or physical properties G01N; measuring electric or magnetic variables in general, other than direction or magnitude of the earth's field G01R; electronic or nuclear magnetic resonance arrangements [G01R 33/20](#); radar, sonar or analogous methods in general, detecting masses or objects involving these methods G01S)

NOTE

In this subclass, the geophysical methods apply both to the earth and to other celestial objects, e.g. planets.

Attention is drawn to the Notes following the title of class G01.

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[G01V 3/11](#) covered by [G01V 3/10B](#), [G01V 3/10C](#)

G01V 1/00

Seismology; Seismic or acoustic prospecting or detecting

NOTE

[G01V 1/44](#) to [G01V 1/52](#) take precedence over groups [G01V 1/001](#) to [G01V 1/393](#)
[G01V 1/42](#)

WARNING

[G01V 1/159](#) does not correspond to former or current IPC groups. Concordance ECLA:IPC for this group is as follows:- [G01V 1/159](#) : [G01V 1/02](#)

G01V 1/001

- . { Acoustic presence detection (measurement of sonic vibrations G01H; alarm systems G08B)}

G01V 1/003

- . { Seismic data acquisition in general, e.g. survey design ([G01V 1/3808](#), [G01V 1/42](#) takes precedence)}

G01V 1/005

- .. { with exploration systems emitting special signals, e.g. frequency swept signals, pulse sequences or slip sweep arrangements}

G01V 1/006

- .. { generating single signals by using more than one generator, e.g. beam steering or focussing arrays ([G01V 1/13](#), [G01V 1/3861](#) takes precedence)}

- G01V 1/008 . { [Earthquake measurement or prediction \(event detection for microseismic events G01V 1/288\)](#) }
- G01V 1/02 . Generating seismic energy ([G01V 1/003 takes precedence](#)); [blasting in general F42](#); [nuclear explosives G21J](#))
- G01V 1/04 .. Details
- G01V 1/047 ... Arrangements for coupling the generator to the ground
- G01V 1/0475 { [for controlling "Ground Force"](#) }
- G01V 1/053 for generating transverse waves
- G01V 1/06 ... Ignition devices ([G01V 1/393 takes precedence](#))
- G01V 1/08 involving time-delay devices
- G01V 1/09 ... Transporting arrangements, e.g. on vehicles ([G01V 1/38 takes precedence](#))
- G01V 1/104 .. using explosive charges ([G01V 1/157 takes precedence](#))
- G01V 1/108 ... by deforming or displacing surfaces of enclosures
- G01V 1/112 for use on the surface of the earth
- G01V 1/116 ... where pressurised combustion gases escape from the generator in a pulsating manner, e.g. for generating bursts
- G01V 1/13 ... Arrangements or disposition of charges to produce a desired pattern in space or time
- G01V 1/133 .. using fluidic driving means, e.g. highly pressurised fluids; { [using implosion](#) } ([G01V 1/104 takes precedence](#))
- G01V 1/135 ... by deforming or displacing surfaces of enclosures { , e.g. by [hydraulically driven vibroseis™](#) }
- G01V 1/137 ... which fluid escapes from the generator in a pulsating manner, e.g. for generating bursts { , [airguns](#) }
- G01V 1/143 .. using mechanical driving means { e.g. [motor driven shaft](#) } ([G01V 1/104](#), [G01V 1/133 take precedence](#))
- G01V 1/145 ... by deforming or displacing surfaces { , e.g. by [mechanically driven vibroseis™](#) }
- G01V 1/147 ... using impact of dropping masses
- G01V 1/153 ... using rotary unbalanced masses
- G01V 1/155 ... using reciprocating masses
- G01V 1/157 .. using spark discharges; using exploding wires ([spark gaps](#), { [non-enclosed discharge apparatus](#), not otherwise provided for [H01T](#) }
- G01V 1/159 .. { [using piezoelectric or magnetostrictive driving means \(generating mechanical vibrations by using piezoelectric or magnetostrictive effect in general, \[B06B 1/06\]\(#\), \[B06B 1/08\]\(#\)\)](#) }
- G01V 1/16 . Receiving elements for seismic signals ([electromechanical transducers H04R](#)); Arrangements or adaptations of receiving elements
- G01V 1/162 .. { [Details](#) }
- G01V 1/164 ... { [Circuits therefore](#) }
- G01V 1/166 ... { [Arrangements for coupling receivers to the ground](#) }
- G01V 1/168 .. { [Deployment of receiver elements \(\[G01V 1/3843 takes precedence\]\(#\)\)](#) }
- G01V 1/18 .. Receiving elements, e.g. seismometer, geophone { or [torque detectors](#), for [localised single point measurements](#) }
- G01V 1/181 ... { [Geophones](#) }

- G01V 1/182 { with moving coil}
- G01V 1/183 { with moving magnet}
- G01V 1/184 { Multi-component geophones}
- G01V 1/185 { with adaptable orientation, e.g. gimballed}
- G01V 1/186 . . . { Hydrophones}
- G01V 1/187 { Direction-sensitive hydrophones}
- G01V 1/188 { with pressure compensating means}
- G01V 1/189 . . . { Combinations of different types of receiving elements}
- G01V 1/20 . . Arrangements of receiving elements, e.g. geophone pattern
- G01V 1/201 . . . { Constructional details of seismic cables, e.g. streamers (integrated optoseismic systems [G01V 1/226](#); line connectors in general H01R, transducer mountings in general [G10K 11/004](#))}
- G01V 1/202 { Connectors, e.g. for force, signal or power}
- G01V 1/208 { having a continuous structure (detecting traffic G08G, transducers in general G10K)}

- G01V 1/22 . . Transmitting seismic signals to recording or processing apparatus (signal transmitting systems in general G08C; transmission systems in general H04B)
- G01V 1/223 . . { Radioseismic systems}
- G01V 1/226 . . { Optoseismic systems}

- G01V 1/24 . . Recording seismic data (transforming one recording into another [G01V 1/32](#) ; recording measured values in general G01D)
- G01V 1/242 . . {Seismographs}
- G01V 1/245 . . {Amplitude control for seismic recording (control of amplification in general [H03G](#))}
- G01V 1/247 . . { Digital recording of seismic data, e.g. in acquisition units or nodes}
- G01V 1/26 . . Reference-signal-transmitting devices, e.g. indicating moment of firing of shot

- G01V 1/28 . . Processing seismic data, e.g. analysis, for interpretation, for correction ([G01V 1/48](#) takes precedence)
- G01V 1/282 . . {Application of seismic models, synthetic seismograms}
- G01V 1/284 . . {Application of the shear wave component and/or several components of the seismic signal}
- G01V 1/286 . . . { Mode conversion}
- G01V 1/288 . . [N: Event detection in seismic signals, e.g. microseismics (earthquakes [G01V 1/008](#); [G01V 1/36](#) takes precedence)
- G01V 1/30 . . Analysis ([G01V 1/50](#) takes precedence)
- G01V 1/301 . . . { for determining seismic cross-sections or geostructures}
- G01V 1/302 { in 3D data cubes}
- G01V 1/303 . . . { for determining velocity profiles or travel times}
- G01V 1/305 { Travel times}
- G01V 1/306 . . . { for determining physical properties of the subsurface, e.g. impedance, porosity or attenuation profiles}
- G01V 1/307 . . . { for determining seismic attributes, e.g. amplitude, instantaneous phase or frequency, reflection strength or polarity}
- G01V 1/308 . . . { Time lapse or 4D effects, e.g. production related effects to the formation (fluid

- flow per se E21B47)}**
- G01V 1/32 .. Transforming one recording into another { or one representation into another}
 - G01V 1/325 ... { Transforming one representation into another}
 - G01V 1/34 .. Displaying seismic recordings { or visualisation of seismic data or attributes}
 - G01V 1/345 ... { Visualisation of seismic data or attributes, e.g. in 3D cubes}
 - G01V 1/36 .. Effecting static or dynamic corrections on records, e.g. correcting spread;
Correlating seismic signals; Eliminating effects of unwanted energy
 - G01V 1/362 ... {Effecting static or dynamic corrections; Stacking}
 - G01V 1/364 ... {Seismic filtering ([G01V 1/37](#) takes precedence)}
 - G01V 1/366 {by correlation of seismic signals}
 - G01V 1/368 {Inverse filtering}
 - G01V 1/37 .. specially adapted for seismic systems using continuous agitation of the ground,
{e.g. using pulse compression of frequency swept signals for enhancement of
received signals}
 - G01V 1/375 {Correlating received seismic signals with the emitted source signal}

 - G01V 1/38 . specially adapted for water-covered areas ([G01V 1/28](#), {[G01V 1/42](#) take precedence})
 - G01V 1/3808 .. { Seismic data acquisition, e.g. survey design (in general [G01V 1/003](#))}
 - G01V 1/3817 .. {Positioning of seismic devices}
 - G01V 1/3826 ... { dynamic steering, e.g. by paravanes or birds}
 - G01V 1/3835 ... { measuring position, e.g. by GPS or acoustically}
 - G01V 1/3843 .. { Deployment of seismic devices, e.g. of streamers (equipment for marine
deployment in general B63B)}
 - G01V 1/3852 ... { to the seabed}
 - G01V 1/3861 .. { control of source arrays, e.g. for far field control}
 - G01V 1/387 .. Reducing secondary bubble pulse, i.e. reducing the detected signals resulting from
the generation and release of gas bubbles after the primary explosion
 - G01V 1/393 .. Means for loading explosive underwater charges, e.g. combined with ignition
devices

 - G01V 1/40 . specially adapted for well-logging
 - G01V 1/42 .. using generators in one well and receivers elsewhere or vice-versa ([G01V 1/52](#)
takes precedence)
 - G01V 1/44 .. using generators and receivers in the same well ([G01V 1/52](#) takes precedence)
 - G01V 1/46 ... Data acquisition
 - G01V 1/48 ... Processing data
 - G01V 1/50 ... Analysing data
 - G01V 1/52 .. Structural details
 - G01V 1/523 ... { Damping devices}

 - G01V 3/00** **Electric or magnetic prospecting or detecting (by optical means [G01V 8/00](#));
Measuring magnetic field characteristics of the earth, e.g. declination, deviation (for
navigation, for surveying [G01C](#); { measuring direction or magnitude of magnetic fields or
magnetic flux in general [G01R 33/02](#))}**

 - G01V 3/02 . operating with propagation of electric current

- G01V 3/04 .. using dc
- G01V 3/06 .. using ac
- G01V 3/08 . operating with magnetic or electric fields produced or modified by objects or geological structures or by detecting devices (with electromagnetic waves [G01V 3/12](#); measuring the magnetic field characteristics of the earth [G01V 3/40](#))
- G01V 3/081 .. {the magnetic field is produced by the objects or geological structures (characterised by the method of magnetic field measurement [G01R 33/00](#))}
- G01V 3/082 .. {operating with fields produced by spontaneous potentials, e.g. electrochemical or produced by telluric currents ([G01V 3/26](#) takes precedence)}
- G01V 3/083 .. { Controlled source electromagnetic [CSEM] surveying }
- G01V 3/087 .. { the earth magnetic field being modified by the objects or geological structures}
- G01V 3/088 .. { operating with electric fields ([G01V 3/082](#) takes precedence)}
- G01V 3/10 .. using induction coils
- G01V 3/101 ... {by measuring the impedance of the search coil; by measuring features of a resonant circuit comprising the search coil (measuring impedance or characteristics derived therefrom [G01R 27/00](#), e.g. quality factor [G01R 27/26](#))}
- G01V 3/102 {by measuring amplitude}
- G01V 3/104 ... {using several coupled or uncoupled coils ([G01V 3/101](#) takes precedence)}
- G01V 3/105 {forming directly coupled primary and secondary coils or loops}
- G01V 3/107 {using compensating coil or loop arrangements}
- G01V 3/108 {the emitter and the receiver coils or loops being uncoupled by positioning them perpendicularly to each other}
- G01V 3/12 . operating with electromagnetic waves {(operating with millimetre waves [G01V 8/005](#))}
- G01V 3/14 . operating with electron or nuclear magnetic resonance
- G01V 3/15 . specially adapted for use during transport, e.g. by a person, vehicle or boat
- G01V 3/16 .. specially adapted for use from aircraft ([G01V 3/165](#) to [G01V 3/175](#) take precedence)
- G01V 3/165 .. operating with magnetic or electric fields produced or modified by the object or by the detecting device (with electromagnetic waves [G01V 3/17](#))
- G01V 3/17 .. operating with electromagnetic waves {(operating with millimetre waves [G01V 8/005](#))}
- G01V 3/175 .. operating with electron or nuclear magnetic resonance
- G01V 3/18 . specially adapted for well-logging
- G01V 3/20 .. operating with propagation of electric current
- G01V 3/22 ... using dc
- G01V 3/24 ... using ac
- G01V 3/26 .. operating with magnetic or electric fields produced or modified either by the surrounding earth formation or by the detecting device (with electromagnetic waves [G01V 3/30](#))
- G01V 3/265 ... {Operating with fields produced by spontaneous potentials, e.g. electrochemicals or produced by telluric currents}
- G01V 3/28 ... using induction coils
- G01V 3/30 .. operating with electromagnetic waves

- G01V 3/32 . . . operating with electron or nuclear magnetic resonance
- G01V 3/34 . . . Transmitting data to recording or processing apparatus; Recording data
- G01V 3/36 . . . Recording data ([G01V 3/34](#) takes precedence)
- G01V 3/38 . . . Processing data, e.g. for analysis, for interpretation, for correction ([computing in general G06](#))
- G01V 3/40 . . . specially adapted for measuring magnetic field characteristics of the earth

- G01V 5/00** **Prospecting or detecting by the use of nuclear radiation, e.g. of natural or induced radioactivity** ([determining the properties of materials G01N](#); [measuring nuclear radiation G01T](#))

- WARNING**

- G01V 5/0008 . . . {[Detecting hidden objects, e.g. weapons, explosives \(sorting of materials or articles according to radioactive properties B07C 5/342; investigating or analysing materials by the use of wave or particle radiation G01N 23/00\)](#)}
- G01V 5/0016 . . . { Active interrogation, i.e. using an external radiation source, e.g. using pulsed, continuous or cosmic rays}
- G01V 5/0025 . . . { Measuring scattered radiation}
- G01V 5/0033 . . . { Mixed interrogation beams, e.g. using more than one type of radiation beam}
- G01V 5/0041 . . . { Multiple energy techniques using one type of radiation, e.g. X-rays of different energies ([multi-beam applications, e.g. X-rays and neutrons G01V 5/0033](#); [spectroscopic applications G01V 5/0016](#))}
- G01V 5/005 . . . { using Tomography, e.g. CT or SPECT ([detector details in CT applications G01T 1/2985](#))}
- G01V 5/0058 . . . { using stereoscopic means}
- G01V 5/0066 . . . { having relative motion between the source, detector and object other than by conveyor ([G01V 5/005](#) takes precedence)}
- G01V 5/0075 . . . { [Passive interrogation \(for hand, feet or portals G01T 1/167; for contaminated surface areas G01T 1/169\)](#)}
- G01V 5/0083 . . . { utilizing a network, e.g. a remote expert, accessing remote data or the like}
- G01V 5/0091 . . . { [detecting special nuclear material \[SNM\], e.g. Uranium-235, Uranium-233 or Plutonium-239](#) }

- G01V 5/02 . . . specially adapted for surface logging, e.g. from aircraft
- G01V 5/025 . . . {specially adapted for use from aircraft}

- G01V 5/04 . . . specially adapted for well-logging
- G01V 5/045 . . . {[Transmitting data to recording or processing apparatus; Recording data](#)}
- G01V 5/06 . . . for detecting naturally radioactive minerals
- G01V 5/08 . . . using primary nuclear radiation sources or X-rays {e.g. for inducing radioactivity; [investigating or analysing materials by the use of wave or particle radiation, e.g. X-rays, neutrons G01N 23/00](#)}
- G01V 5/085 . . . {using another radioactive source}

- G01V 5/10 . . . using neutron sources {neutron generating tubes [H05H 5/00](#); neutron sources using isotopes [G21G 4/00](#)}
- G01V 5/101 {and detecting the secondary Y-rays produced in the surrounding layers of the bore hole}
- G01V 5/102 {the neutron source being of the pulsed type}
- G01V 5/104 {and detecting secondary Y-rays as well as reflected or back-scattered neutrons}
- G01V 5/105 {the neutron source being of the pulsed type}
- G01V 5/107 {and detecting reflected or back-scattered neutrons}
- G01V 5/108 {the neutron source being of the pulsed type}
- G01V 5/12 . . . using gamma or X-ray sources {gamma sources using isotopes [G21G 4/00](#); X-ray tubes [H01J 35/00](#)}
- G01V 5/125 {and detecting the secondary gamma- or X-rays in different places along the bore hole}
- G01V 5/14 . . . using a combination of several sources, e.g. a neutron and a gamma source
- G01V 5/145 {using a neutron source combined with a gamma- or X-ray source}

G01V 7/00 **Measuring gravitational fields or waves; Gravimetric prospecting or detecting**

- G01V 7/005 . {using a resonating body or device, e.g. string ([G01V 7/08](#) to [G01V 7/12](#) take precedence; measuring resonant frequency of mechanical vibrations [G01H 13/00](#); measuring frequency per se [G01R 23/00](#))}
- G01V 7/02 . Details
- G01V 7/04 . . Electric, photoelectric, or magnetic indicating or recording means
- G01V 7/06 . . Analysis or interpretation of gravimetric records
- G01V 7/08 . using balances ([balances in general G01G](#))
- G01V 7/10 . . using torsion balances, e.g. Eötvös balance
- G01V 7/12 . using pendulums
- G01V 7/14 . using free-fall time
- G01V 7/16 . specially adapted for use on moving platforms, e.g. ship, aircraft

G01V 8/00 **Prospecting or detecting by optical means** (measurement of characteristics of light [G01J](#); optical scanning systems [G02B 26/10](#); discharge tubes detecting the presence of radiation [H01J 40/00](#), [H01J 47/00](#); semiconductor devices sensitive to light [H01L 31/00](#))

NOTE

This group covers the use of {millimetre waves,} infra-red, visible or ultra-violet light.

- G01V 8/005 . {operating with millimetre waves, e.g. measuring the black body radiation}
- G01V 8/02 . Prospecting

- G01V 8/10 . Detecting, e.g. by using light barriers (by reflection from the object [G01S 17/00](#); counting of objects carried by a conveyer [G06M 7/00](#); signalling or calling arrangements [G08B](#); detecting movement of traffic to be counted or controlled [G08G 1/01](#); proximity switches [H03K 17/945](#), [H03K 17/965](#))
- G01V 8/12 . . using one transmitter and one receiver
- G01V 8/14 . . . using reflectors
- G01V 8/16 . . . using optical fibres
- G01V 8/18 . . . using mechanical scanning systems
- G01V 8/20 . . using multiple transmitters or receivers
- G01V 8/22 . . . using reflectors
- G01V 8/24 . . . using optical fibres
- G01V 8/26 . . . using mechanical scanning systems
- G01V 9/00** **Prospecting or detecting by methods not provided for in groups [G01V 1/00](#) to [G01V 8/00](#)**
- G01V 9/002 . {using fields or radiation detectable only by persons susceptible therefor, e.g. radio-esthesia, dowsing}
- G01V 9/005 . {by thermal methods, e.g. after generation of heat by chemical reactions}
- G01V 9/007 . {by detecting gases or particles representative of underground layers at or near the surface (analysing earth materials [G01N 33/24](#); analysing gases per se [G01N](#))}
- G01V 9/02 . Determining existence or flow of underground water
- G01V 11/00** **prospecting or detecting by methods combining techniques covered by two or more of main groups [G01V 1/00](#) to [G01V 9/00](#)**
- G01V 11/002 . {Details, e.g. power supply systems for logging instruments, transmitting or recording data, specially adapted for well logging, also if the prospecting method is irrelevant (means for transmitting well survey signals [E21B 47/12](#); signal transmission systems in general [G08C](#); transmission in general [H04B](#))}
- G01V 11/005 . . {Devices for positioning logging sondes with respect to the borehole wall (centralising devices for drilling rods or pipes [E21B 17/10](#); setting or locking tools in boreholes [E21B 23/00](#); Locating objects in boreholes [E21B 47/09](#))}
- G01V 11/007 . { using the seismo-electric effect }
- G01V 13/00** **Manufacturing, calibrating, cleaning, or repairing instruments or devices covered by the preceding groups**
- G01V 15/00** **Tags attached to, or associated with, an object, in order to enable detection of the object (record carriers for use with machines [G06K 19/00](#); signs, labels [G09F](#))**
- G01V 99/00** **Subject matter not provided for in other groups of this subclass**

[G01V 99/005](#) . { Geomodels or geomodelling, not related to particular measurements}

G01V 2001/00 Seismology; Seismic or acoustic prospecting or detecting

NOTE

[G01V 1/44](#) to [G01V 1/52](#) take precedence over groups [G01V 1/001](#) to [G01V 1/393](#)
[G01V 1/42](#)

WARNING

[G01V 1/159](#) does not correspond to former or current IPC groups. Concordance ECLA:IPC for this group is as follows:- [G01V 1/159](#) : [G01V 1/02](#)

- [G01V 2001/16](#) . Receiving elements for seismic signals ([electromechanical transducers H04R](#)); Arrangements or adaptations of receiving elements
- [G01V 2001/20](#) .. Arrangements of receiving elements, e.g. geophone pattern
- [G01V 2001/201](#) ... { [Constructional details of seismic cables, e.g. streamers \(integrated optoseismic systems \[G01V 1/226\]\(#\); line connectors in general H01R, transducer mountings in general \[G10K 11/004\]\(#\)\)](#)}
- [G01V 2001/204](#) Reinforcements, e.g. by tensioning cables
- [G01V 2001/205](#) Internal damping
- [G01V 2001/207](#) Buoyancy
- [G01V 2001/40](#) . specially adapted for well-logging
- [G01V 2001/52](#) .. Structural details
- [G01V 2001/526](#) ... Mounting of transducers
- G01V 2003/00 Electric or magnetic prospecting or detecting (by optical means [G01V 8/00](#)); Measuring magnetic field characteristics of the earth, e.g. declination, deviation (for navigation, for surveying [G01C](#); { measuring direction or magnitude of magnetic fields or magnetic flux in general [G01R 33/02](#)})**
- [G01V 2003/08](#) . operating with magnetic or electric fields produced or modified by objects or geological structures or by detecting devices ([with electromagnetic waves \[G01V 3/12\]\(#\); measuring the magnetic field characteristics of the earth \[G01V 3/40\]\(#\)](#))
- [G01V 2003/083](#) .. { [Controlled source electromagnetic \[CSEM\] surveying](#) }
- [G01V 2003/084](#) ... Sources
- [G01V 2003/085](#) ... Receivers
- [G01V 2003/086](#) ... Processing
- G01V 2200/00 Details of seismic or acoustic prospecting or detecting in general**
- [G01V 2200/10](#) . Miscellaneous details

- G01V 2200/12 .. Clock synchronization-related issues
- G01V 2200/14 .. Quality control
- G01V 2200/16 .. Measure-while-drilling or logging-while-drilling

G01V 2210/00 Details of seismic processing or analysis

- G01V 2210/10 . Aspects of acoustic signal generation or detection
- G01V 2210/12 .. Signal generation
 - G01V 2210/121 ... Active source
 - G01V 2210/1212 Shot
 - G01V 2210/1214 Continuous
 - G01V 2210/1216 Drilling-related
 - G01V 2210/123 ... Passive source, e.g. micro-seismics
 - G01V 2210/1232 Earthquakes
 - G01V 2210/1234 Hydrocarbon reservoir, e.g. spontaneous or induced fracturing
 - G01V 2210/1236 Acoustic daylight, e.g. cultural noise
 - G01V 2210/125 ... Virtual source
 - G01V 2210/127 ... Cooperating multiple sources
 - G01V 2210/129 ... Source location
 - G01V 2210/1291 Air
 - G01V 2210/1293 Sea
 - G01V 2210/1295 Land surface
 - G01V 2210/1297 Sea bed
 - G01V 2210/1299 Subsurface, e.g. in borehole or below weathering layer or mud line
- G01V 2210/14 .. Signal detection
 - G01V 2210/142 ... Receiver location
 - G01V 2210/1421 Air
 - G01V 2210/1423 Sea
 - G01V 2210/1425 Land surface
 - G01V 2210/1427 Sea bed
 - G01V 2210/1429 Subsurface, e.g. in borehole or below weathering layer or mud line
 - G01V 2210/144 ... with functionally associated receivers, e.g. hydrophone and geophone pairs
- G01V 2210/16 .. Survey configurations
 - G01V 2210/161 ... Vertical seismic profiling [VSP]
 - G01V 2210/163 ... Cross-well
 - G01V 2210/165 ... Wide azimuth
 - G01V 2210/167 ... Very long offset
 - G01V 2210/169 ... Sparse arrays
- G01V 2210/20 . Trace signal pre-filtering to select, remove or transform specific events or signal components, i.e. trace-in/trace-out ([removing noise G01V 2210/32](#))

- G01V 2210/21 .. Frequency-domain filtering, e.g. band pass
- G01V 2210/22 .. Time-domain filtering
- G01V 2210/23 .. Wavelet filtering
- G01V 2210/24 .. Multi-trace filtering
- G01V 2210/242 ... F-k filtering, e.g. ground roll
- G01V 2210/244 ... Radon transform
- G01V 2210/25 .. Transform filter for merging or comparing traces from different surveys
- G01V 2210/26 .. Modulation or demodulation, e.g. for continuous sources
- G01V 2210/27 .. Other pre-filtering

- G01V 2210/30 . Noise handling ([trace signal pre-filtering G01V 2210/20](#))
- G01V 2210/32 .. Noise reduction
- G01V 2210/322 ... Trace stacking
- G01V 2210/324 ... Filtering
- G01V 2210/3242 Flow noise
- G01V 2210/3244 Cultural noise
- G01V 2210/3246 Coherent noise, e.g. spatially coherent or predictable
- G01V 2210/3248 Incoherent noise, e.g. white noise
- G01V 2210/34 .. Noise estimation ([quality control G01V 2200/14](#))
- G01V 2210/36 .. Noise recycling, i.e. retrieving non-seismic information from noise
- G01V 2210/38 .. Noise characterisation or classification

- G01V 2210/40 . Transforming data representation ([for pre-filtering purposes G01V 2210/20](#))
- G01V 2210/41 .. Arrival times, e.g. of P or S wave or first break
- G01V 2210/42 .. Waveform, i.e. using raw or pre-filtered trace data
- G01V 2210/43 .. Spectral
- G01V 2210/44 .. F-k domain
- G01V 2210/45 .. F-x or F-xy domain
- G01V 2210/46 .. Radon transform
- G01V 2210/47 .. Slowness, e.g. tau-pi
- G01V 2210/48 .. Other transforms

- G01V 2210/50 . Corrections or adjustments related to wave propagation ([noise handling G01V 2210/30](#))
- G01V 2210/51 .. Migration
- G01V 2210/512 ... Pre-stack
- G01V 2210/514 ... Post-stack
- G01V 2210/52 .. Move-out correction
- G01V 2210/522 ... Dip move-out [DMO]
- G01V 2210/53 .. Statics correction, e.g. weathering layer or transformation to a datum
- G01V 2210/532 ... Dynamic changes in statics, e.g. sea waves or tidal influences
- G01V 2210/54 .. Borehole-related corrections
- G01V 2210/542 ... Casing

G01V 2210/544	...	Invasion zone
G01V 2210/55	..	Array focusing; Phased arrays
G01V 2210/56	..	De-ghosting; Reverberation compensation
G01V 2210/57	..	Trace interpolation or extrapolation, e.g. for virtual receiver; Anti-aliasing for missing receivers
G01V 2210/58	..	Media-related
G01V 2210/582	...	Dispersion
G01V 2210/584	...	Attenuation
G01V 2210/586	...	Anisotropic media
G01V 2210/588	...	Non-linear media
G01V 2210/59	..	Other corrections
G01V 2210/60	.	Analysis
G01V 2210/61	..	Analysis by combining or comparing a seismic data set with other data
G01V 2210/612	...	Previously recorded data, e.g. time-lapse or 4D
G01V 2210/6122	....	Tracking reservoir changes over time, e.g. due to production
G01V 2210/6124	.....	Subsidence, i.e. upwards or downwards
G01V 2210/614	...	Synthetically generated data
G01V 2210/616	...	Data from specific type of measurement
G01V 2210/6161	....	Seismic or acoustic, e.g. land or sea measurements
G01V 2210/6163	....	Electromagnetic
G01V 2210/6165	....	Gravitational
G01V 2210/6167	....	Nuclear
G01V 2210/6169	....	using well-logging
G01V 2210/62	..	Physical property of subsurface
G01V 2210/622	...	Velocity, density or impedance
G01V 2210/6222	....	Velocity; travel time
G01V 2210/6224	....	Density
G01V 2210/6226	....	Impedance
G01V 2210/624	...	Reservoir parameters
G01V 2210/6242	....	Elastic parameters, e.g. Young, Lam λ or Poisson
G01V 2210/6244	....	Porosity
G01V 2210/6246	....	Permeability
G01V 2210/6248	....	Pore pressure
G01V 2210/626	...	with anisotropy
G01V 2210/63	..	Seismic attributes, e.g. amplitude, polarity, instant phase
G01V 2210/632	...	Amplitude variation versus offset or angle of incidence [AVA, AVO, AVI]
G01V 2210/64	..	Geostructures, e.g. in 3D data cubes
G01V 2210/641	...	Continuity of geobodies
G01V 2210/642	...	Faults
G01V 2210/643	...	Horizon tracking
G01V 2210/644	...	Connectivity, e.g. for fluid movement

G01V 2210/645	...	Fluid contacts
G01V 2210/646	...	Fractures
G01V 2210/647	...	Gas hydrates
G01V 2210/65	..	Source localisation, e.g. faults, hypocenters or reservoirs
G01V 2210/66	..	Subsurface modeling
G01V 2210/661	...	Model from sedimentation process modeling, e.g. from first principles
G01V 2210/663	...	Modeling production-induced effects
G01V 2210/665	...	using geostatistical modeling
G01V 2210/6652	....	Kriging
G01V 2210/667	...	Determining confidence or uncertainty in parameters
G01V 2210/67	..	Wave propagation modeling
G01V 2210/671	...	Raytracing
G01V 2210/673	...	Finite-element; Finite-difference
G01V 2210/675	...	Wave equation; Green's functions
G01V 2210/677	...	Spectral; Pseudo-spectral
G01V 2210/679	...	Reverse-time modeling or coalescence modelling, i.e. starting from receivers
G01V 2210/70	.	Other details related to processing
G01V 2210/72	..	Real-time processing
G01V 2210/74	..	Visualisation of seismic data