

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

GEOFYSICS; 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 3/10](#) B, [G01V 3/10](#) C

G01V 1/00

Seismology; Seismic or acoustic prospecting or detecting

NOTE

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

WARNING

Group [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 2001/204	....	Reinforcements, e.g. by tensioning cables
G01V 2001/205	....	Internal damping
G01V 2001/207	....	Buoyancy
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	..	{ 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 [E21B 47/00](#))}
- 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 2001/526 ... Mounting of transducers

 - 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 2003/084 . . . Sources
- G01V 2003/085 . . . Receivers
- G01V 2003/086 . . . Processing
- 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**

Pending reclassification, the subgroups of this group are not complete; see also this group
 - 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 conveyor [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-esthesis, 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 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? 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