CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS
(NOTES omitted)

INSTRUMENTS

G01 MEASURING; TESTING
(NOTES omitted)

G01N INVESTIGATING OR ANALYSING MATERIALS BY DETERMINING THEIR CHEMICAL OR PHYSICAL PROPERTIES (separating components of materials in general B01D, B01J, B03, B07; apparatus fully provided for in a single other subclass, see the relevant subclass, e.g. B01L; measuring or testing processes other than immunoassay, involving enzymes or microorganisms C12M, C12Q; investigation of foundation soil in situ E02D 1/00; sensing humidity changes for compensating measurements of other variables or for compensating readings of instruments for variations in humidity, see G01D or the relevant subclass for the variable measured; testing or determining the properties of structures G01M; measuring or investigating electric or magnetic properties of materials G01R; systems or methods in general, using reception or emission of radiowaves or other waves and based on propagation effects, e.g. Doppler effect, propagation time, direction of propagation, G01S; determining sensivity, graininess, or density of photographic materials G03C 5/02; testing component parts of nuclear reactors G21C 17/00; {controlling or regulating non-electric variables G05D; measuring degree of ionisation of ionised gases, i.e. plasma H05H 1/0006; testing electrographic developer properties G03G 15/0848})

NOTES

1. In this subclass, the following terms are used with the meanings indicated :
   - "investigating" means testing or determining;
   - "materials" includes solid, liquid or gaseous media, e.g. the atmosphere.
2. Attention is drawn to the Notes following the title of class G01.
3. Inventions relating to investigating the properties of materials, specially adapted for use in processes covered by subclass B23K, are classified in group B23K 31/12.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Sampling; Preparing specimens for investigation

2001/002 . {Devices for supplying or distributing samples to an analysing apparatus}

2001/005 . . {Packages for mailing or similar transprot of samples}

2001/007 . . {Devices specially adapted for forensic samples, e.g. tamper-proofing, sample tracking}

1/02 . Devices for withdrawing samples (for medical or veterinary purposes A61; {sampling of foundation soil E02D 1/04} ; obtaining samples of soil or well fluids E21B 49/00; {collecting or conveying radioactive samples G01T 7/00, e.g. G01T 7/02, G01T 7/08})

2001/021 . . {Correlating sampling sites with geographical information, e.g. GPS}

2001/022 . . {sampling for security purposes, e.g. contraband, warfare agents}

2001/024 . . . {passengers or luggage}

2001/025 . . . {postal items}

2001/027 . . . {field kits / quick test kits}

2001/028 . . {Sampling from a surface, swabbing, vaporising}

1/04 . . in the solid state, e.g. by cutting

2001/045 . . . {Laser ablation; Microwave vaporisation}

1/06 . . . providing a thin slice, e.g. microtome

2001/061 . . . . {Blade details}

2001/063 . . . . . {with sawing action}

2001/065 . . . . {Drive details}

2001/066 . . . . . {electric}

2001/068 . . . . {Illumination means}

1/08 . . . involving an extracting tool, e.g. core bit

2001/085 . . . . {Grabs}

1/10 . . in the liquid or fluent state {(burettes, pipettes B01L 3/02; sampling of ground water E02D 1/06; metering by volume of fluids or fluent solid material G01F 11/00, G01F 13/00)}

2001/1006 . . . {Dispersed solids}

2001/1012 . . . . {Suspensions}
2001/1018 . . . . . {Gas suspensions; Fluidised beds}
2001/1025 . . . . . {Liquid suspensions; Slurries; Mud; Sludge}
2001/1031 . . . {Sampling from special places}
2001/1037 . . . . {from an enclosure (hazardous waste, radioactive)}
2001/1043 . . . . {from sewers}
2001/105 . . . . {from high-pressure reactors or lines}
2001/1056 . . . {Disposable (single-use) samplers}
2001/1062 . . . {Sampling under constant temperature, pressure, or the like}
2001/1068 . . . . {Cooling sample below melting point}
2001/1075 . . . . {Trapping evaporated liquids by cooling}
2001/1081 . . . . {Storing samples under refrigeration}
2001/1087 . . . {Categories of sampling}
2001/1093 . . . . {Composite sampling; Cumulative sampling}
1/12 . . . Dippers; Dredgers
1/125 . . . . {adapted for sampling molten metals}
1/14 . . . Suction devices, e.g. pumps; Ejector devices
1/1409 . . . . {adapted for sampling molten metals}
2001/1418 . . . . {Depression, aspiration}
2001/1427 . . . . . {Positive displacement, piston, peristaltic}
2001/1436 . . . . . {Ejector}
2001/1445 . . . . {Overpressure, pressurisation at sampling point}
2001/1454 . . . . . {Positive displacement, piston}
2001/1463 . . . . . {Injector; Air-lift}
2001/1472 . . . . {Devices not actuated by pressure difference}
2001/1481 . . . . . {Archimedian screw; Auger}
2001/149 . . . . . {Capillaries; Sponges}
1/16 . . . with provision for intake at several levels ({G01N 1/2035} G01N 1/12, G01N 1/14 take precedence)
1/18 . . . with provision for splitting samples into portions (G01N 1/12, G01N 1/14 take precedence; fraction-collection apparatus for chromatography B01D 15/08)
2001/185 . . . . {Conveyor of containers successively filled}
1/20 . . . for flowing or falling materials ({G01N 1/2035} G01N 1/12, G01N 1/14 take precedence)
2001/2007 . . . . {Flow conveyors}
2001/2014 . . . . . {Pneumatic conveyors}
2001/2021 . . . . . {falling under gravity}
2001/2028 . . . . . {Belts}
1/2035 . . . . {by deviating part of a fluid stream, e.g. by drawing-off or tapping}
1/2042 . . . . . {using a piston actuated by the pressure of the liquid to be sampled}
2001/205 . . . . . {using a valve}
2001/2057 . . . . . {Sample chamber in a valve/piston}
2001/2064 . . . . . {using a by-pass loop}
2001/2071 . . . . . {Removable sample bottle}
2001/2078 . . . . . {Pre-evacuated bottle}
2001/2085 . . . . . {Non-pre-evacuated septum closed bottles}
2001/2092 . . . . {Cross-cut sampling}
1/22 . . in the gaseous state {(specially adapted for biological material G01N 33/497; measuring breath flow A61B 5/087)}
1/2202 . . . {involving separation of sample components during sampling}
1/2205 . . . . {with filters}
1/2208 . . . . {with impactors}
1/2211 . . . . {with cyclones}
1/2214 . . . . {by sorption}
2001/2217 . . . . . {using a liquid}
2001/222 . . . . {Other features}
2001/2223 . . . . . {aerosol sampling devices}
1/2226 . . . {Sampling from a closed space, e.g. food package, head space}
2001/2229 . . . . {Headspace sampling, i.e. vapour over liquid}
2001/2232 . . . . . {using a membrane, i.e. pervaporation}
2001/2235 . . . . {over a melt, e.g. furnace}
2001/2238 . . . . {the gas being compressed or pressurized}
2001/2241 . . . . {purpose-built sampling enclosure for emissions}
2001/2244 . . . {Exhaled gas, e.g. alcohol detecting}
1/2247 . . . {Sampling from a flowing stream of gas}
2001/225 . . . . {isokinetic, same flow rate for sample and bulk gas}
1/2252 . . . . {in a vehicle exhaust}
2001/2255 . . . . . {with dilution of the sample}
1/2258 . . . . {in a stack or chimney}
2001/2261 . . . . . {preventing condensation (heating lines)}
2001/2264 . . . . {with dilution}
2001/2267 . . . . {separating gas from liquid, e.g. bubbles}
2001/227 . . . . {separating gas from solid, e.g. filter}
1/2273 . . . {Atmospheric sampling}
2001/2276 . . . . {Personal monitors}
2001/2279 . . . . {high altitude, e.g. rockets, balloons}
2001/2282 . . . {with cooling means}
2001/2285 . . . {Details of probe structures}
2001/2288 . . . . {Filter arrangements}
2001/2291 . . . . {Movable probes, e.g. swivelling, swinging}
1/2294 . . . {Sampling soil gases or the like}
2001/2297 . . . {Timing devices}
1/24 . . . Suction devices {(G01N 1/22 - G01N 1/2294 take precedence)}
2001/241 . . . . {Bellows}
2001/242 . . . . {Injectors or ejectors}
2001/244 . . . . . {using critical flow orifices}
2001/245 . . . . {Fans}
2001/247 . . . . {Syringes}
2001/248 . . . . {Evacuated containers}
1/26 . . . with provision for intake from several spaces
1/28 . Preparing specimens for investigation {including physical details of (bio-)chemical methods covered elsewhere, e.g. G01N 33/50, C12Q} (mounting specimens on microscopic slides G02B 21/34; means for supporting the objects or the materials to be analysed in electron microscopes H01J 37/20 {; laboratory gas handling apparatus B01L 5/00})
1/2806 . . {Means for preparing replicas of specimens, e.g. for microscopal analysis}
1/2813 . . {Producing thin layers of samples on a substrate, e.g. smearing, spinning-on (G01N 1/30 takes precedence)}
2001/282 . . . {with mapping; Identification of areas; Spatial correlated pattern}
2001/2826 . . . {Collecting by adsorption or absorption}

2001/2833 . . . {Collecting samples on a sticky, tacky, adhesive surface}
2001/284 . . . . {using local activation of adhesive, i.e. Laser Capture Microdissection}
2001/2846 . . . {Cytocentrifuge method}
1/2853 . . {Shadowing samples}
1/286 . . {involving mechanical work, e.g. chopping, disintegrating, compacting, homogenising (microtomes G01N 1/06; pulverising in general B02C; mixing in general B01F)}
2001/2866 . . . {Grinding or homogeneising}
2001/2873 . . . {Cutting or cleaving}
2001/288 . . . . {Filter punches}
2001/2886 . . . . {Laser cutting, e.g. tissue catapult}
2001/2893 . . {Preparing calibration standards}
1/30 . . Staining; Impregnating {Fixation; Dehydration; Multistep processes for preparing samples of tissue, cell or nucleic acid material and the like for analysis}
2001/302 . . . {Stain compositions}
2001/305 . . . {Fixative compositions}
2001/307 . . . . {non-toxic, no Hg, no formaldehyde}
1/31 . . . Apparatus therefor
1/312 . . . . {for samples mounted on planar substrates}
2001/315 . . . . {Basket-type carriers for tissues}
2001/317 . . . . {spraying liquids onto surfaces}
1/32 . . Polishing; Etching
1/34 . . Purifying; Cleaning {(processes or apparatus for extracting or separating nucleic acids from biological samples C12N 15/1003)}
1/36 . . Embedding or analogous mounting of samples
2001/362 . . . {using continuous plastic film to mount sample}
2001/364 . . . {using resins, epoxy}
2001/366 . . . {Moulds; Demoulding}
2001/368 . . . {Mounting multiple samples in one block, e.g. TMA [Tissue Microarrays]}
1/38 . . Diluting, dispersing or mixing samples
2001/381 . . . {by membrane diffusion; Permeation tubes}
2001/382 . . . {using pistons of different sections}
2001/383 . . . {collecting and diluting in a flow of liquid}
2001/385 . . . {diluting by adsorbing a fraction of the sample}
2001/386 . . . {Other diluting or mixing processes}
2001/387 . . . . {mixing by blowing a gas, bubbling}
2001/388 . . . . {mixing the sample with a tracer}
1/40 . . Concentrating samples
1/4005 . . . {by transferring a selected component through a membrane}
2001/4011 . . . . {being a ion-exchange membrane}
2001/4016 . . . . {being a selective membrane, e.g. dialysis or osmosis}
1/4022 . . . {by thermal techniques; Phase changes}
2001/4027 . . . . {evaporation leaving a concentrated sample}
2001/4033 . . . . {sample concentrated on a cold spot, e.g. condensation or distillation}
2001/4038 . . . {electric methods, e.g. electromigration, electrophoresis, ionisation}
1/4044 . . . {by chemical techniques; Digestion; Chemical decomposition}
1/405 . . . {by adsorption or absorption}
1/4055 . . . {by solubility techniques}
2001/4061 . . . . {Solvent extraction}
2001/4066 . . . . {using difference of solubility between liquid and gas, e.g. bubbling, scrubbing or sparging}
2001/4072 . . . . {membraneless transfer of a component between two parallel laminar flows of fluid}
1/4077 . . . {by other techniques involving separation of suspended solids}
2001/4083 . . . . {sedimentation}
2001/4088 . . . . {filtration}
2001/4094 . . . . {using ultrasound}
1/42 . . Low-temperature sample treatment, e.g. cryofixation
1/44 . . Sample treatment involving radiation, e.g. heat

3/00 Investigating strength properties of solid materials by application of mechanical stress (strain gauges G01B; measuring stress in general G01L)

NOTE

This group covers the stressing of materials not only below but also beyond the elastic limit, e.g. until breaking occurs.

3/02 . Details
3/04 . . Chucks
3/06 . . Special adaptations of indicating or recording means (indicating or recording means for measuring in general G01D)
3/062 . . . {with mechanical indicating or recording means}
3/064 . . . {with hydraulic indicating or recording means}
3/066 . . . {with electrical indicating or recording means}
3/068 . . . {with optical indicating or recording means}
3/08 . by applying steady tensile or compressive forces (G01N 3/28 takes precedence)
3/10 . . generated by pneumatic or hydraulic pressure (G01N 3/18 takes precedence)
3/12 . . . Pressure testing (testing fluid-tightness G01M 3/00)
3/14 . . generated by dead weight, e.g. pendulum; generated by springs tension (G01N 3/18 takes precedence)
3/16 . . applied through gearing (G01N 3/18 takes precedence)
3/165 . . . {generated by rotation, i.e. centrifugal force (for testing structures or apparatus G01M 99/004)}
3/18 . . Performing tests at high or low temperatures
3/20 . by applying steady bending forces (G01N 3/26, G01N 3/28 take precedence)
3/22 . by applying steady torsional forces (G01N 3/26, G01N 3/28 take precedence)
3/24 . by applying steady shearing forces (G01N 3/26, G01N 3/28 take precedence)
3/26 . Investigating twisting or coiling properties
3/28 . Investigating ductility, e.g. suitability of sheet metal for deep-drawing or spinning
3/30 . by applying a single impulsive force, e.g. by falling weight
3/303 . . generated only by free-falling weight
3/307 . . generated by a compressed or tensile-stressed spring; generated by pneumatic or hydraulic means
3/31 . . generated by a rotating fly-wheel
3/313 . . generated by explosives

3/317 . . generated by electromagnetic means
3/32 . by applying repeated or pulsating forces (generation of such forces in general, see the relevant classes or subclasses, e.g. B06, G10)
3/34 . . generated by mechanical means, e.g. hammer blows
3/36 . . generated by pneumatic or hydraulic means
3/38 . . generated by electromagnetic means
3/40 . Investigating hardness or rebound hardness
3/405 . . {by determining the vibration frequency of a sensing element in contact with the specimen}
3/42 . . by performing impressions under a steady load by indentors, e.g. sphere, pyramid (G01N 3/54 takes precedence)
3/44 . . . the indentors being put under a minor load and a subsequent major load, i.e. Rockwell system
3/46 . . . the indentors performing a scratching movement
3/48 . . by performing impressions under impulsive load by indentors, e.g. falling ball (G01N 3/54 takes precedence)
3/50 . . by measuring rolling friction, e.g. by rocking pendulum (G01N 3/54 takes precedence)
3/52 . . by measuring extent of rebound of a striking body (G01N 3/54 takes precedence)
3/54 . . Performing tests at high or low temperatures
3/56 . Investigating resistance to wear or abrasion
3/562 . . {using radioactive tracers}
3/565 . . {of granular or particulate material}
3/567 . . {by submitting the specimen to the action of a fluid or of a fluidised material, e.g. cavitation, jet abrasion (G01N 3/565 takes precedence)}
3/58 . Investigating machinability by cutting tools; Investigating the cutting ability of tools
3/60 . Investigating resistance of materials, e.g. refractory materials, to rapid heat changes {(thermal testing of structures or apparatus G01M 99/002)}
3/62 . Manufacturing, calibrating, or repairing devices used in investigations covered by the preceding subgroups

5/00 Analysing materials by weighing, e.g. weighing small particles separated from a gas or liquid (G01N 9/00 takes precedence {; weighing per se G01G})

5/02 . by absorbing or adsorbing components of a material and determining change of weight of the adsorbent, e.g. determining moisture content {(absorption bulbs B01D 53/00)}
5/025 . . {for determining moisture content}
5/04 . by removing a component, e.g. by evaporation, and weighing the remainder
5/045 . . {for determining moisture content}

7/00 Analysing materials by measuring the pressure or volume of a gas or vapour

7/02 . by absorption, adsorption, or combustion of components and measurement of the change in pressure or volume of the remainder {(absorption bulbs B01D 53/00)}
7/04 . . by absorption or adsorption alone
7/06 . . by combustion alone
7/08 . . by combustion followed by absorption or adsorption of the combustion products
7/10 . by allowing diffusion of components through a porous wall and measuring a pressure or volume difference
7/12 . . the diffusion being followed by combustion or catalytic oxidation
7/14 . by allowing the material to emit a gas or vapour, e.g. water vapour, and measuring a pressure or volume difference {(determining urea G01N 33/48742)}
7/16 . . by heating the material
7/18 . . by allowing the material to react
7/20 . . . the reaction being fermentation
7/22 . . . . of dough

9/00 Investigating density or specific gravity of materials; Analysing materials by determining density or specific gravity (weighing apparatus G01G)

9/002 . {using variation of the resonant frequency of an element vibrating in contact with the material submitted to analysis (G01N 9/34 takes precedence)}
2009/004 . . {comparing frequencies of two elements}
2009/006 . . {vibrating tube, tuning fork}
2009/008 . . {Schlatter vibrating vane type}
9/02 . by measuring weight of a known volume
2009/022 . . {of solids}
2009/024 . . . {the volume being determined directly, e.g. by size of container}
2009/026 . . . {the volume being determined by amount of fluid displaced}
2009/028 . . . . {a gas being used as displacement fluid}
9/04 . . of fluids
9/06 . . . with continuous circulation through a pivotally supported member
9/08 . by measuring buoyant force of solid materials by weighing both in air and in a liquid
9/10 . by observing bodies wholly or partially immersed in fluid materials
9/12 . . by observing the depth of immersion of the bodies, e.g. hydrometers
9/14 . . . the body being built into a container
9/16 . . . the body being pivoted
9/18 . . . Special adaptations for indicating, recording, or control
9/20 . . by balancing the weight of the bodies
9/22 . . . with continuous circulation of the fluid
9/24 . by observing the transmission of wave or particle radiation through the material
9/26 . by measuring pressure differences
2009/263 . . {using vertically-movable pressure transducer}
9/266 . . {for determining gas density}
9/28 . . by measuring the blowing pressure of gas bubbles escaping from nozzles at different depths in a liquid
9/30 . by using centrifugal effects
9/32 . by using flow properties of fluids, e.g. flow through tubes or apertures
9/34 . . by using elements moving through the fluid, e.g. vane

9/36 . Analysing materials by measuring the density or specific gravity, e.g. determining quantity of moisture (methods of measurement in general G01N 9/02 - G01N 9/32)

11/00 Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties

2011/0006 . {Calibrating, controlling or cleaning viscometers}
2011/0013 . . {Temperature compensation}
2011/002 . . {Controlling sample temperature; Thermal cycling during measurement}
2011/0026 . {Investigating specific flow properties of non-Newtonian fluids}
2011/0033 . . {Yield stress; Residual stress at zero shear rate}
2011/004 . . {Stress relaxation time}
2011/0046 . {In situ measurement during mixing process}
2011/0053 . . {using ergometry; measuring power consumption}
2011/006 . {Determining flow properties indirectly by measuring other parameters of the system}
2011/0066 . . {electrical properties}
2011/0073 . . {acoustic properties}
2011/008 . . {optical properties}
2011/0086 . . {magnetic properties}
2011/0093 . . {thermal properties}
11/02 . by measuring flow of the material
11/04 . . through a restricted passage, e.g. tube, aperture
11/06 . . . by timing the outflow of a known quantity
11/08 . . . by measuring pressure required to produce a known flow
11/10 . by moving a body within the material
11/105 . . {by detecting the balance position of a float moving in a duct conveying the fluid under test}
11/12 . . by measuring rising or falling speed of the body; by measuring penetration of wedged gauges (G01N 11/16 takes precedence)
11/14 . . by using rotary bodies, e.g. vane (G01N 11/16 takes precedence)
11/142 . . . {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
2011/145 . . . . {both members rotating}
2011/147 . . . {Magnetic coupling}
11/16 . . by measuring damping effect upon oscillatory body
11/162 . . . {Oscillations being torsional, e.g. produced by rotating bodies}
11/165 . . . . {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
11/167 . . . . {Sample holder oscillates, e.g. rotating crucible}

13/00 Investigating surface or boundary effects, e.g. wetting power; Investigating diffusion effects; Analysing materials by determining surface, boundary, or diffusion effects (scanning-probe techniques or apparatus G01Q)

2013/003 . {Diffusion; diffusivity between liquids}
2013/006 . {Dissolution of tablets or the like}
13/02 . Investigating surface tension of liquids
2013/0208 . . {by measuring contact angle}
2013/0216 . . {by measuring skin friction or shear force}
2013/0225 . . {of liquid metals or solder}
2013/0233 . . {Langmuir troughs; thin-film balances}
2013/0241 . . {bubble, pendant drop, sessile drop methods}
2013/025 . . . {Measuring foam stability}
2013/0258 . . . {Oscillating drop methods}
2013/0266 . . . {Bubble methods}
2013/0275 . . {involving surface-active agents}
2013/0283 . . {methods of calculating surface tension}
2013/0291 . . {Wilhelmy plate}
13/04 . Investigating osmotic effects

15/00 Investigating characteristics of particles; Investigating permeability, pore-volume, or surface-area of porous materials (identification of microorganisms C12Q)

2015/0003 . {Determining electric mobility, velocity profile, average speed or velocity of a plurality of particles}
2015/0007 . {Investigating dispersion of gas}
2015/0011 . . {in liquids, e.g. bubbles}
2015/0015 . . {in solids}
2015/0019 . {Means for transferring or separating particles prior to analysis, e.g. hoppers or particle conveyors}
2015/0023 . {Investigating dispersion of liquids}
2015/0026 . . {in gas, e.g. fog}
2015/003 . . {in liquids, e.g. emulsion}
2015/0034 . . {in solids}
2015/0038 . {Investigating nanoparticles}
2015/0042 . {Investigating dispersion of solids}
2015/0046 . . {in gas, e.g. smoke}
2015/0049 . . . {of filaments in gas}
2015/0053 . . {in liquids, e.g. trouble}
2015/0057 . . . {of filaments in liquids}
2015/0061 . . {in solids, e.g. petrography}
2015/0065 . {biological, e.g. blood}
2015/0069 . . {with lysing, e.g. of erythrocytes}
2015/0073 . . {Red blood cells}
2015/0076 . . . {Reticulocytes}
2015/008 . . {White cells}
2015/0084 . . {Platelets}
2015/0088 . . {Biological contaminants; Fouling}
2015/0092 . {Monitoring flocculation or agglomeration}
2015/0096 . {Investigating consistence of powders, dustability, dustiness}
15/02 . Investigating particle size or size distribution (G01N 15/04, G01N 15/10 take precedence; by measuring osmotic pressure G01N 7/10; by filtering B01D; by sifting B07B)
15/0205 . . {by optical means, e.g. by light scattering, diffraction, holography or imaging}
15/0211 . . . {Investigating a scatter or diffraction pattern}
2015/0216 . . . . {from fluctuations of diffraction pattern}
2015/0222 . . . . {from dynamic light scattering, e.g. photon correlation spectroscopy}
15/0227 . . . {using imaging, e.g. a projected image of suspension; using holography}
2015/0233 . . . {using holography}
2015/0238 . . . {Single particle scatter}
2015/0244 . . . {with cutting-out molecular scatter}
2015/025 . . . {Methods for single or grouped particles}
15/0255 . . {with mechanical, e.g. inertial, classification, and investigation of sorted collections (with centrifuges G01N 15/042)}
2015/0261 . . . {using impactors}

15/0266 . . {with electrical classification}
15/0272 . . {with screening; with classification by filtering (B01D takes precedence)}
2015/0277 . . {Average size only}
2015/0283 . . {using control of suspension concentration}
2015/0288 . . {Sorting the particles}
2015/0294 . . {Particle shape}
2015/03 . {Electro-optical investigation of a plurality of particles, the analyser being characterised by the optical arrangement}
2015/035 . . {the optical arrangement forming an integrated apparatus with the sample container}
15/04 . Investigating sedimentation of particle suspensions
15/042 . . {by centrifuging and investigating centrifugates (centrifuges per se B04B)}
2015/045 . . . {by optical analysis}
2015/047 . . . . {by static multidetectors}
15/05 . . in blood
2015/055 . . . {for hematocrite determination}
15/06 . Investigating concentration of particle suspensions (G01N 15/04, G01N 15/10 take precedence; by weighing G01N 5/00)

NOTE

References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group and its subgroups:
- Investigating or analysing materials;
- by the use of optical means: G01N 21/00, e.g. G01N 21/47, G01N 21/90;
- by other radiations or by particles: G01N 23/00, e.g. G01N 23/02, G01N 23/201;
- by measuring impedance: G01N 27/02, e.g. G01N 27/06, G01N 27/22;
- by electrochemical means: G01N 27/00, e.g. G01N 27/26;
- by measuring absorption of sonic or ultrasonic vibrations: G01N 29/00, e.g. G01N 29/02

15/0606 . . {by collecting particles on a support}
15/0612 . . . {Optical scan of the deposits (G01N 15/0625 takes precedence)}
15/0618 . . . {of the filter type (G01N 15/0643 takes precedence)}
15/0625 . . . . {Optical scan of the deposits}
15/0631 . . . . {Separation of liquids, e.g. by absorption, wicking}
15/0637 . . . {Moving support}
15/0643 . . . . {of the filter type}
15/065 . . {using condensation nuclei counters}
15/0656 . . {using electric, e.g. electrostatic methods or magnetic methods (by investigating individual particles G01N 15/1031, G01N 15/12)}
2015/0662 . . {Comparing before/after passage through filter}
2015/0668 . . {Comparing properties of sample and carrier fluid, e.g. oil in water}
2015/0675 . . {Comparing suspension before/after dilution}
2015/0681 . . {Purposely modifying particles, e.g. humidifying for growing}
2015/0687 . . {in solutions, e.g. non volatile residue}
2015/0693 . . {by optical means, e.g. by integrated nephelometry}
15/08 . Investigating permeability, pore-volume, or surface area of porous materials
15/0806 . . {Details, e.g. sample holders, mounting samples for testing}
2015/0813 . . {Measuring intrusion, e.g. of mercury}
15/082 . . {Investigating permeability by forcing a fluid through a sample}
15/0826 . . . {and measuring fluid flow rate, i.e. permeation rate or pressure change}
2015/0833 . . {Pore surface area}
2015/084 . . {Testing filters}
2015/0846 . . {by use of radiation, e.g. transmitted or reflected light}
2015/0853 . . {by electrical capacitance measurement}
2015/086 . . {of films, membranes or pellicules}
2015/0866 . . {Sorption}
2015/0873 . . . {Dynamic sorption, e.g. with flow control means}
15/088 . . {Investigating volume, surface area, size or distribution of pores; Porosimetry}
15/0886 . . . {Mercury porosimetry}
15/0893 . . . {by measuring weight or volume of sorbed fluid, e.g. B.E.T. method}
15/10 . Investigating individual particles
2015/1006 . . {for cytology}
15/1012 . . {Calibrating particle analysers; References therefor}
2015/1018 . . . {Constitution of reference particles}
2015/1025 . . . {Particle flow simulating, e.g. liquid crystal cell}
15/1031 . . {by measuring electrical or magnetic effects thereof, e.g. onconductivity or capacity (using nanoscale size effects, other than for sizing or counting, by translocation through nanopores G01N 33/48721; involving the use of Coulter counters G01N 15/12)}
2015/1037 . . {Associating coulter-counter and optical flow cytometer [OFC]}
2015/1043 . . {Measuring mass of individual particles}
2015/105 . . {Other than optical measurement of deformation of individual particles (optical measurement G01N 2015/1495)}
15/1056 . . {Microstructural devices for other than electro-optical measurement (for electro-optical measurement G01N 15/1484)}
2015/1062 . . {counting the particles by other than electro-optical means (by electro-optical means G01N 2015/1486)}
2015/1068 . . {Recognizing failure of the analyser, e.g. bubbles; Quality control for particle analysers}
2015/1075 . . {Determining speed or velocity of a particle}
2015/1081 . . {Sorting the particles}
2015/1087 . . {Particle size}
2015/1093 . . {Particle shape}
15/12 . . Coulter-counters
15/1209 . . . {Details}
15/1218 . . . . {concerning the aperture}
15/1227 . . . . {Circuits}
2015/1236 . . . . {Flow forming}
15/1245 . . . {Devices using more than one aperture}
2015/1254 . . . {Electrodes}
2015/1263 . . . . {Scanning electrodes}
2015/1272 . . . {Cleaning}

2015/1281 . . . {Detecting blocking debris}
2015/129 . . . {measuring the ratio of AC/DC impedances}
15/14 . . Electro-optical investigation, e.g. flow cytometers
2015/1402 . . . {Data analysis by thresholding or gating operations performed on the acquired signals or stored data}
15/1404 . . . {Fluid conditioning in flow cytometers, e.g. flow cells; Supply; Control of flow}
2015/1406 . . . . {Control of droplet point}
2015/1409 . . . . {Control of supply of sheaths fluid, e.g. sample injection control}
2015/1411 . . . . . {Features of sheats fluids}
2015/1413 . . . . {Hydrodynamic focussing}
2015/1415 . . . . {Control of particle position}
2015/1418 . . . . {Eliminating clogging of debris}
2015/142 . . . . {Acoustic or ultrasonic focussing}
2015/1422 . . . . {Electrical focussing}
15/1425 . . . {using an analyser being characterised by its control arrangement}
15/1427 . . . . {with the synchronisation of components, a time gate for operation of components, or suppression of particle coincidences}
15/1429 . . . {using an analyser being characterised by its signal processing}
15/1431 . . . . {the electronics being integrated with the analyser, e.g. hand-held devices for on-site investigation}
15/1434 . . . {using an analyser being characterised by its optical arrangement}
15/1436 . . . . {the optical arrangement forming an integrated apparatus with the sample container, e.g. a flow cell}
2015/1438 . . . . {Using two lasers in succession}
2015/144 . . . . {Imaging characterised by its optical setup}
2015/1443 . . . . . {Auxiliary imaging}
2015/1445 . . . . . {Three-dimensional imaging, imaging in different image planes, e.g. under different angles or at different depths, e.g. by a relative motion of sample and detector, for instance by tomography}
2015/1447 . . . . {Spatial selection}
2015/145 . . . . . {by pattern of light, e.g. fringe pattern}
2015/1452 . . . . {Adjustment of focus; Alignment}
2015/1454 . . . . {using phase shift or interference, e.g. for improving contrast}
15/1456 . . . {without spatial resolution of the texture or inner structure of the particle, e.g. processing of pulse signals}
15/1459 . . . . {the analysis being performed on a sample stream}
2015/1461 . . . . {Coincidence detecting; Circuits therefor}
15/1463 . . . . {using image analysis for extracting features of the particle}

NOTE

References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group:
- counting objects disposed at random with size distrinction G06M 11/04
- extraction of features from image for pattern recognition G06K 9/46
- specific image analysis method for the recognition of microscopic objects G06K 9/00127
- image enhancement in general G06T 5/00
- image analysis in general G06T 7/00

2015/1465 . . . . . {image analysis on colour image}
15/1468 . . . {with spatial resolution of the texture or inner structure of the particle}

NOTE

References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group:
- counting objects disposed at random with size distinction G06M 11/04
- extraction of features from image for pattern recognition G06K 9/46
- specific image analysis method for the recognition of microscopic objects G06K 9/00127
- image enhancement G06T 5/00
- image analysis G06T 7/00

15/147 . . . . {the analysis being performed on a sample stream}
2015/1472 . . . . {with colour}
15/1475 . . . . {using image analysis for extracting features of the particle}
2015/1477 . . . {Multiparameters}
2015/1479 . . . . {Using diffuse illumination or excitation}
2015/1481 . . . {Optical analysis of particle in droplet}
15/1484 . . . {microstructural devices}
2015/1486 . . . {Counting the particles}
2015/1488 . . . {Methods for deciding}
2015/149 . . . {Sorting the particles}
2015/1493 . . . {Particle size}
2015/1495 . . . . {Deformation of particles}
2015/1497 . . . {Particle shape}

17/00 Investigating resistance of materials to the weather, to corrosion, or to light

17/002 . {Test chambers}
17/004 . {to light}
17/006 . {of metals}
17/008 . {Monitoring fouling}
17/02 . Electrochemical measuring systems for weathering, corrosion or corrosion-protection measurement
17/04 . Corrosion probes
17/043 . . {Coupons}
17/046 . . . {Means for supporting or introducing coupons}

19/00 Investigating materials by mechanical methods (G01N 3/00 - G01N 17/00 take precedence)

19/02 . Measuring coefficient of friction between materials {(testing of tyres G01M 17/02; determinations of friction coefficient used in vehicle braking or traction control systems B60T 8/172)}
19/04 . Measuring adhesive force between materials, e.g. of sealing tape, of coating
19/06 . Investigating by removing material, e.g. spark-testing

19/08 . Detecting presence of flaws or irregularities (measuring roughness or irregularity of surfaces G01B 5/28)

19/10 . Measuring moisture content, e.g. by measuring change in length of hygroscopic filament; Hygrometers

21/00 Investigating or analysing materials by the use of optical means, i.e. using infra-red, visible or ultra-violet light (G01N 3/00-G01N 19/00 take precedence)

NOTE

This group does not cover the investigation of spectral properties of light per se, or measurements of the properties of materials where spectral properties of light are sensed and primary emphasis is placed on creating, detecting or analysing the spectrum providing that the properties of the materials to be investigated are of minor importance. Those subjects are covered by group G01J 3/00.

21/01 . Arrangements or apparatus for facilitating the optical investigation

2021/0106 . . {General arrangement of respective parts}

2021/0112 . . . {Apparatus in one mechanical, optical or electronic block}

2021/0118 . . . {Apparatus with remote processing}

2021/0125 . . . . {with stored program or instructions}

2021/0131 . . . . . {being externally stored}

2021/0137 . . . . {with PC or the like}

2021/0143 . . . . {with internal and external computer}

2021/015 . . . {Apparatus with interchangeable optical heads or interchangeable block of optics and detector}

2021/0156 . . . . {with optics only in separate head, e.g. connection by optical fibres}

2021/0162 . . {using microprocessors for control of a sequence of operations, e.g. test, powering, switching, processing}

2021/0168 . . . {for the measurement cycle}

2021/0175 . . . {for selecting operating means}

2021/0181 . . {Memory or computer-assisted visual determination}

2021/0187 . . {Mechanical sequence of operations}

2021/0193 . . {the sample being taken from a stream or flow to the measurement cell}

21/03 . . Cuvette constructions

21/0303 . . . {Optical path conditioning in cuvettes, e.g. windows; adapted optical elements or systems; path modifying or adjustment (G01N 21/031 - G01N 21/15 take precedence)}

2021/0307 . . . . {Insert part in cell}

21/031 . . . {Multipass arrangements}

2021/0314 . . . . {Double pass, autocollimated path}

21/0317 . . . {High pressure cuvettes; (G01N 21/0332 - G01N 21/15 take precedence)}

2021/0321 . . . {One time use cells, e.g. integrally moulded}

2021/0325 . . . {Cells for testing reactions, e.g. containing reagents}

2021/0328 . . . . {Arrangement of two or more cells having different functions for the measurement of reactions}

21/0332 . . . {with temperature control (control of temperature G05D 23/00; cryostats F17C 3/08)}

2021/0335 . . . . {Refrigeration of cells; Cold stages}

2021/0339 . . . {Holders for solids, powders}

2021/0342 . . . {Solid sample being immersed, e.g. equiindex fluid}

2021/0346 . . . {Capillary cells; Microcells}

2021/035 . . . . {Supports for sample drops}

2021/0353 . . . . . {Conveyor of successive sample drops}

2021/0357 . . . {Sets of cuvettes}

2021/036 . . . {transformable, modifiable}

2021/0364 . . . {flexible, compressible}

2021/0367 . . . {Supports of cells, e.g. pivotable}

2021/0371 . . . . {Supports combined with sample intake}

2021/0375 . . . . {Slidable cells}

2021/0378 . . . {Shapes}

2021/0382 . . . . {Frustoconical, tapered cell}

2021/0385 . . . {Diffusing membrane; Semipermeable membrane}

2021/0389 . . . {Windows}

2021/0392 . . . . {Nonplanar windows}

2021/0396 . . . . {Oblique incidence}

21/05 . . . Flow-through cuvettes (G01N 21/09 takes precedence; handling fluid samples G01N 1/10)

2021/052 . . . . {Tubular type; cavity type; multireflective}

2021/054 . . . . {Bubble trap; Debubbling}

2021/056 . . . . {Laminated construction}

2021/058 . . . . {Flat flow cell}

21/07 . . . Centrifugal type cuvettes (G01N 21/09 takes precedence; centrifuges per se B04B)

21/09 . . . adapted to resist hostile environments or corrosive or abrasive materials

21/11 . . Filling or emptying of cuvettes

2021/115 . . . {Washing; Purging}

21/13 . . Moving of cuvettes or solid samples to or from the investigating station {(handling materials for automatic analysis G01N 35/00)}

2021/135 . . . {Sample holder displaceable (in automatised apparatus G01N 35/02)}

21/15 . . Preventing contamination of the components of the optical system or obstruction of the light path

2021/151 . . . {Gas blown}

2021/152 . . . {Scraping; Brushing; Moving band}

2021/154 . . . {Ultrasonic cleaning}

2021/155 . . . {Monitoring cleanness of window, lens, or other parts}

2021/157 . . . . {Monitoring by optical means}

2021/158 . . . {Eliminating condensation}

21/17 . Systems in which incident light is modified in accordance with the properties of the material investigated (where the material investigated is optically excited causing a change in wavelength of the incident light G01N 21/63)

21/1702 . . {with opto-acoustic detection, e.g. for gases or analysing solids}

2021/1704 . . . {in gases}

2021/1706 . . . {in solids}

2021/1708 . . . {with piezotransducers (probes for investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves G01N 29/24)}

21/171 . . {with calorimetric detection, e.g. with thermal lens detection}
2021/1712 . . . {Thermal lens, mirage effect}
2021/1714 . . . {Photothermal radiometry with measurement of emission}
21/1717 . . {with a modulation of one or more physical properties of the sample during the optical investigation, e.g. electro-reflectance}
2021/1719 . . . {Carrier modulation in semiconductors}
2021/1721 . . . {Electromodulation}
2021/1723 . . . {Fluid modulation}
2021/1725 . . . {Modulation of properties by light, e.g. photoreflectance}
2021/1727 . . . {Magnetomodulation}
2021/1729 . . . {Piezomodulation}
2021/1731 . . . {Temperature modulation}
2021/1734 . . {Sequential different kinds of measurements; Combining two or more methods}
2021/1736 . . . {with two or more light sources}
2021/1738 . . {Optionally different kinds of measurements; Method being valid for different kinds of measurement}
2021/174 . . . {either absorption-reflection or emission-fluorescence}
2021/1742 . . . {either absorption or reflection}
2021/1744 . . . {either absorption or scatter}
2021/1746 . . {Method using tracers}
2021/1748 . . {Comparative step being essential in the method}
2021/1751 . . . {Constructive features therefore, e.g. using two measurement cells}
2021/1753 . . . . {and using two light sources}
2021/1755 . . . . {and using two apparatus or two probes}
2021/1757 . . {Time modulation of light being essential to the method of light modification, e.g. using single detector (circuits for photometry with modulation, using one detector G01J 1/44)}
2021/1759 . . . {Jittering, dithering, optical path modulation}
2021/1761 . . {A physical transformation being implied in the method, e.g. a phase change}
2021/1763 . . . {Gas to liquid phase change}
2021/1765 . . {Method using an image detector and processing of image signal}
2021/1768 . . . {using photographic film}
2021/177 . . . {Detector of the video camera type}
2021/1772 . . . . {Array detector}
2021/1774 . . . . . {Line array detector}
2021/1776 . . . . {Colour camera}
2021/1778 . . . . {IIT [intensified image tube]}
2021/178 . . {Methods for obtaining spatial resolution of the property being measured}
2021/1782 . . . {In-depth resolution}
2021/1785 . . . {Three dimensional}
2021/1787 . . . . {Tomographic, i.e. computerised reconstruction from projective measurements}
2021/1789 . . {Time resolved}
2021/1791 . . . {stroboscopic; pulse gated; time range gated}
2021/1793 . . {Remote sensing}
2021/1795 . . . {Atmospheric mapping of gases}
2021/1797 . . . {in landscape, e.g. crops}
21/19 . . Dichroism
21/21 . . Polarisation-affecting properties (G01N 21/19 takes precedence)
21/211 . . . {Ellipsometry (optical thickness measurement G01B 11/06)}
2021/212 . . . . {Arrangement with total internal reflection}
2021/213 . . . . {Spectrometric ellipsometry}
2021/214 . . . . {Variangle incidence arrangement}
2021/215 . . . . {Brewster incidence arrangement}
2021/216 . . . {using circular polarised light}
2021/217 . . . {Measuring depolarisation or comparing polarised and depolarised parts of light}
2021/218 . . . {Measuring properties of electrooptical or magnetooptical media}
21/23 . . . Bi-refringence
21/25 . . Colour; Spectral properties, i.e. comparison of effect of material on the light at two or more different wavelengths or wavelength bands
21/251 . . . {Colorimeters; Construction thereof}
21/253 . . . . {for batch operation, i.e. multisample apparatus (analytical automats G01N 35/00)}
21/255 . . . {Details, e.g. use of specially adapted sources, lighting or optical systems}
21/256 . . . {Arrangements using two alternating lights and one detector}
2021/258 . . . {Surface plasmon spectroscopy, e.g. micro- or nanoparticles in suspension}
21/27 . . . using photo-electric detection (G01N 21/31 takes precedence) {; circuits for computing concentration (logarithmic circuits G06G 7/24; photometric circuits in general G01J)}
21/272 . . . . {for following a reaction, e.g. for determining photometrically a reaction rate (photometric cinetic analysis)}
21/274 . . . . {Calibration, base line adjustment, drift correction}
21/276 . . . . . {with alternation of sample and standard in optical path}
21/278 . . . . . {Constitution of standards}
21/29 . . . using visual detection (G01N 21/31 takes precedence)
21/293 . . . . {with colour charts, graduated scales or turrets}
2021/296 . . . . {Visually measuring scintillation effect}
21/31 . . . Investigating relative effect of material at wavelengths characteristic of specific elements or molecules, e.g. atomic absorption spectrometry {(G01N 21/72 takes precedence)}
21/3103 . . . . {Atomic absorption analysis}
2021/3107 . . . . . {Cold vapor, e.g. determination of Hg}
2021/3111 . . . . . {using Zeeman split}
2021/3114 . . . . . {Multi-element AAS arrangements}
2021/3118 . . . . . {Commutating sources, e.g. line source/ broad source, chopping for comparison of broad/narrow regimes}
2021/3122 . . . . . {using a broad source with a monochromator}
2021/3125 . . . . {Measuring the absorption by excited molecules}
2021/3129 . . . . {Determining multicomponents by multiwavelength light}
2021/3133 . . . . . {with selection of wavelengths before the sample}
2021/3137 . . . . . {with selection of wavelengths after the sample}

21/314 . . . . {with comparison of measurements at specific and non-specific wavelengths (dual wavelength spectrometry G01J 3/427)}
2021/3144 . . . . . {for oxymetry}
2021/3148 . . . . . {using three or more wavelengths}
21/3151 . . . . . {using two sources of radiation of different wavelengths (G01N 21/33 - G01N 21/39 take precedence)}
2021/3155 . . . . . {Measuring in two spectral ranges, e.g. UV and visible}
2021/3159 . . . . . {Special features of multiplexing circuits}
2021/3162 . . . . . {with offset adjustment between filters}
2021/3166 . . . . . {using separate detectors and filters}
2021/317 . . . . . {Special constructive features}
2021/3174 . . . . . {Filter wheel}
2021/3177 . . . . . {Use of spatially separated filters in simultaneous way}
2021/3181 . . . . . {using LEDs}
2021/3185 . . . . {typically monochromatic or band-limited}
2021/3188 . . . . . {band-limited}
2021/3192 . . . . . {Absorption edge variation is measured}
2021/3196 . . . . {Correlating located peaks in spectrum with reference data, e.g. fingerprint data}
21/33 . . . . using ultra-violet light (G01N 21/39 takes precedence)
2021/335 . . . . . {Vacuum UV}
21/35 . . . . using infra-red light (G01N 21/39 takes precedence)
21/3504 . . . . . for analysing gases, e.g. multi-gas analysis
2021/3509 . . . . . {Correlation method, e.g. one beam alternating in correlator/sample field}
2021/3513 . . . . . {Open path with an instrumental source}
21/3518 . . . . . Devices using gas filter correlation techniques; Devices using gas pressure modulation techniques

NOTE

This group also covers devices without instrumental sources, e.g. radiometric-type devices using ambient infra-red light.

2021/3522 . . . . . {balancing by two filters on two detectors}
2021/3527 . . . . . {and using one filter cell as attenuator}
2021/3531 . . . . . {without instrumental source, i.e. radiometric}
2021/3536 . . . . . {using modulation of pressure or density}
2021/354 . . . . . {Hygrometry of gases}
2021/3545 . . . . . {Disposition for compensating effect of interfering gases}
2021/355 . . . . . {by using a third optical path, e.g. interference cuvette}
21/3554 . . . . . for determining moisture content
21/3559 . . . . . in sheets, e.g. in paper
21/3563 . . . . . for analysing solids; Preparation of samples therefor
2021/3568 . . . . . {applied to semiconductors, e.g. Silicon}
2021/3572 . . . . . {Preparation of samples, e.g. salt matrices}
21/3577 . . . . . for analysing liquids, e.g. polluted water
21/3581 . . . . . using far infra-red light; using Terahertz radiation
21/3586 . . . . . by Terahertz time domain spectroscopy [THz-TDS]
21/359 . . . . . using near infra-red light
2021/3595 . . . . . {using FTIR}
21/37 . . . . . using pneumatic detection {(opto-acoustic detection G01N 21/1702)}
21/39 . . . . using tunable lasers
2021/391 . . . . . {Intracavity sample}
2021/392 . . . . . {Measuring reradiation, e.g. fluorescence, backscatter}
2021/393 . . . . . {and using a spectral variation of the interaction of the laser beam and the sample}
2021/394 . . . . . {DIAL method}
2021/395 . . . . . {using a topographic target}
2021/396 . . . . . {Type of laser source}
2021/397 . . . . . {Dye laser}
2021/398 . . . . . {CO_2 laser}
2021/399 . . . . . {Diode laser}
21/41 . . Refractivity; Phase-affecting properties, e.g. optical path length (G01N 21/21 takes precedence)
2021/4106 . . . {Atmospheric distortion; Turbulence}
2021/4113 . . . . {Atmospheric dispersion}
21/412 . . . {Index profiling of optical fibres}
2021/4126 . . . {Index of thin films}
21/4133 . . . {Refractometers, e.g. differential}
2021/414 . . . . {Correcting temperature effect in refractometers}
2021/4146 . . . . {Differential cell arrangements}
2021/4153 . . . . {Measuring the deflection of light in refractometers}
2021/416 . . . {Visualising flow by index measurement}
2021/4166 . . . {Methods effecting a waveguide mode enhancement through the property being measured}
2021/4173 . . . {Phase distribution}
2021/418 . . . . {Frequency/phase diagrams}
2021/4186 . . . . {Phase modulation imaging}
2021/4193 . . . . {using a PSD}
21/43 . . . by measuring critical angle
21/431 . . . . {Dip refractometers, e.g. using optical fibres}
2021/432 . . . . . {comprising optical fibres}
2021/433 . . . . . {with an unclad part on the fibre}
2021/434 . . . . {Dipping block in contact with sample, e.g. prism}
2021/435 . . . . {Sensing drops on the contact surface}
2021/436 . . . . {Sensing resonant reflection}
2021/437 . . . . . {with investigation of angle}
2021/438 . . . . . {with investigation of wavelength}
21/45 . . . using interferometric methods; using Schlieren methods
2021/451 . . . . {for determining the optical absorption}
21/453 . . . . {Holographic interferometry (for dimensional measurements G01B 9/021 - G01B 9/029)}
21/455 . . . . {Schlieren methods, e.g. for gradient index determination; Shadowgraph}
2021/456 . . . . {Moire deflectometry}

2021/458 . . . . {using interferential sensor, e.g. sensor fibre, possibly on optical waveguide}
21/47 . . Scattering, i.e. diffuse reflection (G01N 21/25, G01N 21/41 take precedence {G01N 21/55 takes precedence})
2021/4702 . . . {Global scatter; Total scatter, excluding reflections}
2021/4704 . . . {Angular selective}
2021/4707 . . . . {Forward scatter; Low angle scatter}
2021/4709 . . . . {Backscatter}
2021/4711 . . . . {Multiangle measurement}
2021/4714 . . . . . {Continuous plural angles}
2021/4716 . . . . . {Using a ring of sensors, or a combination of diaphragm and sensors; Annular sensor}
2021/4719 . . . . . {using a optical fibre array}
2021/4721 . . . . . {using a PSD}
2021/4723 . . . . . {Scanning scatter angles}
2021/4726 . . . . {Detecting scatter at 90°}
2021/4728 . . . . {Optical definition of scattering volume}
2021/473 . . . {Compensating for unwanted scatter, e.g. reliefs, marks}
2021/4733 . . . {Discriminating different types of scatterers}
2021/4735 . . . {Solid samples, e.g. paper, glass}
21/4738 . . . {Diffuse reflection (precedence is given to G01N 21/55 - G01N 21/57 if specular component is taken into consideration), e.g. also for testing fluids, fibrous materials}
21/474 . . . . {Details of optical heads therefor, e.g. using optical fibres}
2021/4742 . . . . . {comprising optical fibres}
2021/4745 . . . . . {Fused bundle, i.e. for backscatter}
2021/4747 . . . . . {Concentric bundles}
2021/475 . . . . . {Bifurcated bundle}
2021/4752 . . . . . {Geometry}
2021/4754 . . . . . {Diffuse illumination}
2021/4757 . . . . . {Geometry 0/45° or 45/0°}
2021/4759 . . . . . {Annular illumination}
2021/4761 . . . . . {Mirror arrangements, e.g. in IR range}
2021/4764 . . . . {Special kinds of physical applications}
2021/4766 . . . . . {Sample containing fluorescent brighteners}
2021/4769 . . . . . {Fluid samples, e.g. slurries, granulates; Compressible powdery of fibrous samples}
2021/4771 . . . . . {Matte surfaces with reflecting particles}
2021/4773 . . . . . {Partly or totally translucent samples}
2021/4776 . . . . {Miscellaneous in diffuse reflection devices}
2021/4778 . . . . . {Correcting variations in front distance}
2021/478 . . . . . {Application in testing analytical test strips}
2021/4783 . . . . . {Examining under varying incidence; Angularly adjustable head}
21/4785 . . . {Standardising light scatter apparatus; Standards therefor}
21/4788 . . . {Diffraction (for sizing particles G01N 15/0205)}
2021/479 . . . . {Speckle}
2021/4792 . . . {Polarisation of scatter light}
21/4795 . . . {spatially resolved investigating of object in scattering medium (in vivo A61B)}
2021/4797 . . . . {time resolved, e.g. analysis of ballistic photons}
21/49 . . . within a body or fluid
2021/495 . . . . {the fluid being adsorbed, e.g. in porous medium}
21/51 . . . . inside a container, e.g. in an ampoule (G01N 21/53 takes precedence; checking containers for cleanliness B08B 9/46)
2021/513 . . . . . {Cuvettes for scattering measurements}
2021/516 . . . . . {Multiple excitation of scattering medium, e.g. by retro-reflected or multiply reflected excitation rays}
21/53 . . . . within a flowing fluid, e.g. smoke (alarm devices actuated by smoke G08B 17/10)
21/532 . . . . . {with measurement of scattering and transmission}
21/534 . . . . . {by measuring transmission alone, i.e. determining opacity}
2021/536 . . . . . {Measurement device mounted at stack}
21/538 . . . . . {for determining atmospheric attenuation and visibility}
21/55 . . Specular reflectivity
2021/551 . . . {Retroreflectance}
21/552 . . . Attenuated total reflection
21/553 . . . . {and using surface plasmons (fluorescence excitation G01N 21/648; enhanced Raman G01N 21/658)}
21/554 . . . . . {detecting the surface plasmon resonance of nanostructured metals, e.g. localised surface plasmon resonance}
2021/555 . . . {Measuring total reflection power, i.e. scattering and specular}
2021/556 . . . {Measuring separately scattering and specular}
2021/557 . . . {Detecting specular reflective parts on sample}
2021/558 . . . {Measuring reflectivity and transmission}
2021/559 . . . {Determining variation of specular reflection within diffusively reflecting sample}
21/57 . . . Measuring gloss
2021/575 . . . . {Photogoniometering}
21/59 . . Transmissivity (G01N 21/25 takes precedence)
2021/5903 . . . {using surface plasmon resonance [SPR], e.g. extraordinary optical transmission [EOT]}
21/5907 . . . {Densitometers}
21/5911 . . . . {of the scanning type (scanning per se G02B)}
2021/5915 . . . . {Processing scan data in densitometry}
2021/5919 . . . . . {Determining total density of a zone}
2021/5923 . . . . . {Determining zones of density; quantitating spots}
2021/5926 . . . . . {Isodensitometers}
2021/593 . . . . . {Correcting from the background density}
2021/5934 . . . . . {Averaging on a zone}
2021/5938 . . . . . {Features of monitor, display}
2021/5942 . . . . . {for dot area ratio in printing applications}
2021/5946 . . . . . {for binary signal}
2021/5949 . . . . . {Correcting nonlinearity of signal, e.g. in measurement of photomedium}
2021/5953 . . . . . {for detecting a spatial spectrum}
2021/5957 . . . . {using an image detector type detector, e.g. CCD}
2021/5961 . . . . . {using arrays of sources and detectors}
2021/5965 . . . . . {using selected detectors in an array}
2021/5969 . . . . {Scanning of a tube, a cuvette, a volume of sample}
2021/5973 . . . . . {where the cuvette or tube is moved}

2021/5976 . . . . {Image projected and scanning projected image}
2021/598 . . . . {Features of mounting, adjusting}
2021/5984 . . . . . {height adjustable}
2021/5988 . . . . . {Fluid mounting or the like, e.g. vortex}
2021/5992 . . . . . {Double pass}
2021/5996 . . . . . {Positioning the head}
21/61 . . . Non-dispersive gas analysers {(G01N 21/3504 takes precedence)}
21/62 . Systems in which the material investigated is excited whereby it emits light or causes a change in wavelength of the incident light
2021/625 . . {Excitation by energised particles such as metastable molecules}
21/63 . . optically excited
21/631 . . . {using photolysis and investigating photolysed fragments}
2021/632 . . . . {Predissociation, e.g. for fluorescence of transient excited radicals}
2021/633 . . . {Photoinduced grating used for analysis}
2021/634 . . . {Photochromic material analysis}
2021/635 . . . {Photosynthetic material analysis, e.g. chrorophyll}
21/636 . . . {using an arrangement of pump beam and probe beam; using the measurement of optical non-linear properties; (non-linear optics per se G02F 1/35)}
2021/637 . . . . {Lasing effect used for analysis}
2021/638 . . . . {Brillouin effect, e.g. stimulated Brillouin effect}
21/64 . . . Fluorescence; Phosphorescence
21/6402 . . . . {Atomic fluorescence; Laser induced fluorescence}
21/6404 . . . . . {Atomic fluorescence}
2021/6406 . . . . . {multi-element}
21/6408 . . . . {with measurement of decay time, time resolved fluorescence}
2021/641 . . . . . {Phosphorimetry, gated}
2021/6413 . . . . . {Distinction short and delayed fluorescence or phosphorescence}
2021/6415 . . . . . {with two excitations, e.g. strong pump/probe flash}
2021/6417 . . . . {Spectrofluorimetric devices}
2021/6419 . . . . . {Excitation at two or more wavelengths}
2021/6421 . . . . . {Measuring at two or more wavelengths}
2021/6423 . . . . . {Spectral mapping, video display}
2021/6426 . . . . . {Determining Fraunhofer lines}
21/6428 . . . . {Measuring fluorescence of fluorescent products of reactions or of fluorochrome labelled reactive substances, e.g. measuring quenching effects, using measuring "optrodes" (in vivo A61B 5/00; immunoassay G01N 33/53)}
21/643 . . . . . {non-biological material}
2021/6432 . . . . . {Quenching}
2021/6434 . . . . . {Optrodes}
2021/6436 . . . . . {for analysing tapes}
2021/6439 . . . . . {with indicators, stains, dyes, tags, labels, marks}
2021/6441 . . . . . {with two or more labels}
2021/6443 . . . . . {Fluorimetric titration}
21/6445 . . . . {Measuring fluorescence polarisation}
21/6447 . . . . {by visual observation}
21/645 . . . . {Specially adapted constructive features of fluorimeters}
21/6452 . . . . . {Individual samples arranged in a regular 2D-array, e.g. multiwell plates}
21/6454 . . . . . {using an integrated detector array}
21/6456 . . . . . {Spatial resolved fluorescence measurements; Imaging}
21/6458 . . . . . {Fluorescence microscopy (fluorescence microscopes per se G02B 21/0076 and G02B 21/16)}
2021/646 . . . . . {Detecting fluorescent inhomogeneities at a position, e.g. for detecting defects}
2021/6463 . . . . . {Optics}
2021/6465 . . . . . {Angular discrimination}
2021/6467 . . . . . {Axial flow and illumination}
2021/6469 . . . . . {Cavity, e.g. ellipsoid}
2021/6471 . . . . . {Special filters, filter wheel}
2021/6473 . . . . . {In-line geometry}
2021/6476 . . . . . {Front end, i.e. backscatter, geometry}
2021/6478 . . . . . {Special lenses}
21/648 . . . . . {using evanescent coupling or surface plasmon coupling for the excitation of fluorescence}
2021/6482 . . . . . {Sample cells, cuvettes}
2021/6484 . . . . . {Optical fibres}
21/6486 . . . . {Measuring fluorescence of biological material, e.g. DNA, RNA, cells (G01N 21/6428 takes precedence)}
21/6489 . . . . {Photoluminescence of semiconductors}
2021/6491 . . . . {Measuring fluorescence and transmission; Correcting inner filter effect}
2021/6493 . . . . . {by alternating fluorescence/transmission or fluorescence/reflection}
2021/6495 . . . . {Miscellaneous methods}
2021/6497 . . . . {Miscellaneous applications}
21/65 . . . Raman scattering
2021/651 . . . . {Cuvettes therefore}
2021/653 . . . . {Coherent methods [CARS]}
2021/655 . . . . . {Stimulated Raman}
2021/656 . . . . . {Raman microprobe}
21/658 . . . . {enhancement Raman, e.g. surface plasmons}
21/66 . . electrically excited, e.g. electroluminescence
21/67 . . . using electric arcs or discharges (spark gaps per se H01T)
21/68 . . . using high frequency electric fields
21/69 . . . specially adapted for fluids {, e.g. molten metal}
2021/695 . . . . {Molten metals}
21/70 . . mechanically excited, e.g. triboluminescence
21/71 . . thermally excited
2021/712 . . . {using formation of volatile hydride}
21/714 . . . {Sample nebulisers for flame burners or plasma burners (nebulizers per se B05B)}
21/716 . . . {by measuring the radiation emitted by a test object treated by combustion gases for investigating the composition of gas mixtures}
21/718 . . . {Laser microanalysis, i.e. with formation of sample plasma}
21/72 . . . using flame burners
2021/725 . . . . {for determining of metalloids, using Beilstein type reaction}

21/73 . . . using plasma burners or torches
21/74 . . . using flameless atomising, e.g. graphite furnaces
2021/745 . . . . {Control of temperature, heating, ashing}
21/75 . Systems in which material is subjected to a chemical reaction, the progress or the result of the reaction being investigated (systems in which material is burnt in a flame or plasma G01N 21/72, G01N 21/73)
2021/751 . . {Comparing reactive/non reactive substances}
2021/752 . . {Devices comprising reaction zones}
2021/754 . . {Reagent flow and intermittent injection of sample or vice versa}
2021/755 . . {Comparing readings with/without reagents, or before/after reaction}
2021/757 . . {using immobilised reagents}
2021/758 . . {using reversible reaction}
21/76 . . Chemiluminescence; Bioluminescence
21/763 . . . {Bioluminescence}
21/766 . . . {of gases}
21/77 . . by observing the effect on a chemical indicator
21/7703 . . . {using reagent-clad optical fibres or optical waveguides (using measurement of total internal reflection or attenuated total reflection G01N 21/552; optical fibres or waveguides per se G02B)}
2021/7706 . . . . {Reagent provision}
2021/7709 . . . . . {Distributed reagent, e.g. over length of guide}
2021/7713 . . . . . {in core}
2021/7716 . . . . . {in cladding}
2021/772 . . . . . {Tip coated light guide}
2021/7723 . . . . . {Swelling part, also for adsorption sensor, i.e. without chemical reaction}
2021/7726 . . . . . {Porous glass}
2021/773 . . . . . {Porous polymer jacket; Polymer matrix with indicator}
2021/7733 . . . . . {Reservoir, liquid reagent}
2021/7736 . . . . . {exposed, cladding free}
21/774 . . . . {the reagent being on a grating or periodic structure}
21/7743 . . . . . {the reagent-coated grating coupling light in or out of the waveguide}
21/7746 . . . . {the waveguide coupled to a cavity resonator}
2021/775 . . . {Indicator and selective membrane}
2021/7753 . . . {Reagent layer on photoelectrical transducer}
2021/7756 . . . {Sensor type}
2021/7759 . . . . {Dipstick; Test strip}
2021/7763 . . . . {Sample through flow}
2021/7766 . . . . {Capillary fill}
2021/7769 . . . {Measurement method of reaction-produced change in sensor}
2021/7773 . . . . {Reflection}
2021/7776 . . . . {Index}
2021/7779 . . . . {interferometric}
2021/7783 . . . . {Transmission, loss}
2021/7786 . . . . {Fluorescence}
2021/7789 . . . . {Cavity or resonator}
2021/7793 . . . {Sensor comprising plural indicators}
2021/7796 . . . {Special mountings, packaging of indicators}
21/78 . . . producing a change of colour
21/783 . . . . {for analysing gases}
2021/786 . . . . {with auxiliary heating for reaction}
21/79 . . . . Photometric titration
21/80 . . . . Indicating pH value
21/81 . . . . Indicating humidity
21/82 . . . producing a precipitate or turbidity
2021/825 . . . . {Agglutination}
21/83 . . . . Turbidimetric titration
21/84 . Systems specially adapted for particular applications
2021/8405 . . {Application to two-phase or mixed materials, e.g. gas dissolved in liquids}
2021/8411 . . {Application to online plant, process monitoring}
2021/8416 . . . {and process controlling, not otherwise provided for}
21/8422 . . {Investigating thin films, e.g. matrix isolation method}
2021/8427 . . . {Coatings}
2021/8433 . . . . {Comparing coated/uncoated parts}
2021/8438 . . . {Mutilayers}
2021/8444 . . {Fibrous material}
2021/845 . . {Objects on a conveyor}
2021/8455 . . . {and using position detectors}
2021/8461 . . {Investigating impurities in semiconductor, e.g. Silicon}
2021/8466 . . {Investigation of vegetal material, e.g. leaves, plants, fruits}
2021/8472 . . {Investigation of composite materials}
2021/8477 . . {Investigating crystals, e.g. liquid crystals}
21/8483 . . {Investigating reagent band (test-element handling not specific to a test method G01N 33/4875; analytical elements specific to chemical analysis of biological material G01N 33/52; autometer with reagent band G01N 35/04)}
2021/8488 . . . {the band presenting reference patches}
2021/8494 . . . {Measuring or storing parameters of the band}
21/85 . . Investigating moving fluids or granular solids
21/8507 . . . {Probe photometers, i.e. with optical measuring part dipped into fluid sample}
2021/8514 . . . . {with immersed mirror}
2021/8521 . . . . . {with a combination mirror cell-cuvette}
2021/8528 . . . . {Immerged light conductor}
2021/8535 . . . . . {presenting a cut}
2021/8542 . . . . . {presenting an exposed part of the core}
2021/855 . . . . {Underground probe, e.g. with provision of a penetration tool}
2021/8557 . . . {Special shaping of flow, e.g. using a by-pass line, jet flow, curtain flow}
2021/8564 . . . . {Sample as drops}
2021/8571 . . . {using filtering of sample fluid}
2021/8578 . . . {Gaseous flow (IR analysers G01N 21/8507)}
2021/8585 . . . . {using porous sheets, e.g. for separating aerosols}
2021/8592 . . . {Grain or other flowing solid samples}
21/86 . . Investigating moving sheets (G01N 21/89 takes precedence)
2021/8609 . . . {Optical head specially adapted}
2021/8618 . . . . {with an optically integrating part, e.g. hemisphere}
2021/8627 . . . . {with an illuminator over the whole width}
2021/8636 . . . . . {Detecting arrangement therefore, e.g. collimators, screens}
2021/8645 . . . {using multidetectors, detector array}
2021/8654 . . . {Mechanical support; Mounting of sheet}

2021/8663 . . . {Paper, e.g. gloss, moisture content (inspecting the presence of flaws in moving materials, e.g. paper G01N 21/89; measurement of gloss in general G01N 21/57)}
2021/8672 . . . . {Paper formation parameter}
2021/8681 . . . . {Paper fibre orientation}
2021/869 . . . {Plastics or polymeric material, e.g. polymers orientation in plastic, adhesive imprinted band}
21/87 . . Investigating jewels (G01N 21/88 takes precedence)
21/88 . . Investigating the presence of flaws or contamination
21/8803 . . . {Visual inspection (measuring projectors G01B 9/08)}
21/8806 . . . {Specially adapted optical and illumination features}
2021/8809 . . . . {Adjustment for highlighting flaws}
2021/8812 . . . . {Diffuse illumination, e.g. "sky"}
2021/8816 . . . . . {by using multiple sources, e.g. LEDs}
2021/8819 . . . . . {by using retroreflecting screen}
2021/8822 . . . . {Dark field detection}
2021/8825 . . . . . {Separate detection of dark field and bright field}
2021/8829 . . . . {Shadow projection or structured background, e.g. for deflectometry (three-dimensional metrology of surfaces G01B 11/25)}
2021/8832 . . . . . {Structured background, e.g. for transparent objects}
2021/8835 . . . . {Adjustable illumination, e.g. software adjustable screen}
2021/8838 . . . . {Stroboscopic illumination; synchronised illumination}
2021/8841 . . . . {Illumination and detection on two sides of object}
2021/8845 . . . . {Multiple wavelengths of illumination or detection}
2021/8848 . . . . {Polarisation of light}
21/8851 . . . {Scan or image signal processing specially adapted therefor, e.g. for scan signal adjustment, for detecting different kinds of defects, for compensating for structures, markings, edges (G01N 21/8806 and G01N 21/93 - G01N 21/95692 take precedence; optical measurement of dimensions G01B 11/00; optical scanning G02B 26/10; image transformation G06T 3/00; computerised image enhancement G06T 5/00; image processing per se for flaw detection G06T 7/0002)}
2021/8854 . . . . {Grading and classifying of flaws}
2021/8858 . . . . . {Flaw counting}
2021/8861 . . . . . {Determining coordinates of flaws}
2021/8864 . . . . . {Mapping zones of defects}
2021/8867 . . . . . {using sequentially two or more inspection runs, e.g. coarse and fine, or detecting then analysing}
2021/887 . . . . . {the measurements made in two or more directions, angles, positions}
2021/8874 . . . . . {Taking dimensions of defect into account}
2021/8877 . . . . . {Proximity analysis, local statistics}
2021/888 . . . . . {Marking defects}
2021/8883 . . . . {involving the calculation of gauges, generating models}
2021/8887 . . . . {based on image processing techniques}
2021/889 . . . . . {providing a bare video image, i.e. without visual measurement aids}
2021/8893 . . . . . {providing a video image and a processed signal for helping visual decision}
2021/8896 . . . . {Circuits specially adapted for system specific signal conditioning}
21/89 . . . in moving material, e.g. running paper or textiles (G01N 21/90, G01N 21/91, G01N 21/94 take precedence)
21/8901 . . . . {Optical details; Scanning details (per se G02B)}
2021/8902 . . . . . {Anamorphic spot}
21/8903 . . . . . {using a multiple detector array}
2021/8904 . . . . . {Sheetwide light conductor on detecting side, e.g. fluorescing light rod}
2021/8905 . . . . . {Directional selective optics, e.g. slits, spatial filters}
2021/8907 . . . . . {Cylindrical optics}
2021/8908 . . . . . {Strip illuminator, e.g. light tube}
2021/8909 . . . . {Scan signal processing specially adapted for inspection of running sheets}
2021/891 . . . . . {Edge discrimination, e.g. by signal filtering}
2021/8911 . . . . . {Setting scan-width signals}
2021/8912 . . . . . {Processing using lane subdivision}
21/8914 . . . . {characterised by the material examined}
21/8915 . . . . . {non-woven textile material}
21/8916 . . . . . {for testing photographic material}
2021/8917 . . . . . {Paper, also ondulated}
2021/8918 . . . . . {Metal}
21/892 . . . . characterised by the flaw, defect or object feature examined
21/8921 . . . . . {Streaks}
21/8922 . . . . . {Periodic flaws}
2021/8924 . . . . . {Dents; Relief flaws}
2021/8925 . . . . . {Inclusions}
2021/8927 . . . . . {Defects in a structured web}
2021/8928 . . . . . {Haze defects, i.e. with a part of diffracted light}
21/894 . . . . . Pinholes
21/896 . . . . . Optical defects in or on transparent materials, e.g. distortion, surface flaws {in conveyed flat sheet or rod (for other objects G01N 21/958)}
2021/8962 . . . . . {for detecting separately opaque flaws and refracting flaws}
2021/8965 . . . . . {using slant illumination, using internally reflected light}
2021/8967 . . . . . {Discriminating defects on opposite sides or at different depths of sheet or rod}
21/898 . . . . . Irregularities in textured or patterned surfaces, e.g. textiles, wood
21/8983 . . . . . {for testing textile webs, i.e. woven material}
21/8986 . . . . . {Wood}
21/90 . . . in a container or its contents (G01N 21/91 takes precedence)

21/9009 . . . . {Non-optical constructional details affecting optical inspection, e.g. cleaning mechanisms for optical parts, vibration reduction}
21/9018 . . . . {Dirt detection in containers}
21/9027 . . . . . {in containers after filling}
21/9036 . . . . {using arrays of emitters or receivers}
21/9045 . . . . {Inspection of ornamented or stippled container walls}
21/9054 . . . . {Inspection of sealing surface and container finish}
2021/9063 . . . . {Hot-end container inspection}
21/9072 . . . . {with illumination or detection from inside the container}
21/9081 . . . . {Inspection especially designed for plastic containers, e.g. preforms}
21/909 . . . . {in opaque containers or opaque container parts, e.g. cans, tins, caps, labels}
21/91 . . . using penetration of dyes, e.g. fluorescent ink
21/93 . . . Detection standards; Calibrating {baseline adjustment, drift correction}
2021/933 . . . . {Adjusting baseline or gain (also for web inspection)}
2021/936 . . . . {Adjusting threshold, e.g. by way of moving average}
21/94 . . . Investigating contamination, e.g. dust (G01N 21/85 takes precedence)
2021/945 . . . . {Liquid or solid deposits of macroscopic size on surfaces, e.g. drops, films, or clustered contaminants (dust particles and microscopic contaminants in G01N 21/94)}
21/95 . . . characterised by the material or shape of the object to be examined (G01N 21/89 - G01N 21/91, G01N 21/94 take precedence)
21/9501 . . . . {Semiconductor wafers (manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10)}
21/9503 . . . . . {Wafer edge inspection}
21/9505 . . . . . {Wafer internal defects, e.g. microcracks}
21/9506 . . . . {Optical discs}
21/9508 . . . . {Capsules; Tablets}
21/951 . . . . {Balls}
2021/9511 . . . . {Optical elements other than lenses, e.g. mirrors (testing of optical apparatus in G01M 11/00)}
2021/9513 . . . . {Liquid crystal panels}
21/9515 . . . . {Objects of complex shape, e.g. examined with use of a surface follower device (measuring contours and curvatures G01B 11/24)}
2021/9516 . . . . . {whereby geometrical features are being masked}
2021/9518 . . . . . {using a surface follower, e.g. robot}
21/952 . . . . Inspecting the exterior surface of cylindrical bodies or wires (G01N 21/956 takes precedence)
21/954 . . . . Inspecting the inner surface of hollow bodies, e.g. bores
2021/9542 . . . . . {using a probe}
2021/9544 . . . . . {with emitter and receiver on the probe}
2021/9546 . . . . . {with remote light transmitting, e.g. optical fibres}
2021/9548 . . . . . {Scanning the interior of a cylinder}
21/956 . . . . Inspecting patterns on the surface of objects (contactless testing of electronic circuits G01R 31/308; testing currency G07D {manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10})
21/95607 . . . . . {using a comparative method}
2021/95615 . . . . . {with stored comparision signal}
21/95623 . . . . . {using a spatial filtering method (per se G02B)}
2021/9563 . . . . . {and suppressing pattern images}
2021/95638 . . . . . {for PCB's}
2021/95646 . . . . . {Soldering}
2021/95653 . . . . . {Through-holes}
2021/95661 . . . . . {for leads, e.g. position, curvature}
2021/95669 . . . . . {for solder coating, coverage}
2021/95676 . . . . . {Masks, reticles, shadow masks}
21/95684 . . . . . {Patterns showing highly reflecting parts, e.g. metallic elements}
21/95692 . . . . . {Patterns showing hole parts, e.g. honeycomb filtering structures}
21/958 . . . . Inspecting transparent materials {or objects, e.g. windscreens (for conveyed flat sheet or rod G01N 21/896)}
2021/9583 . . . . . {Lenses}
2021/9586 . . . . . {Windscreens}

22/00 Investigating or analysing materials by the use of microwaves (G01N 3/00 - G01N 17/00, G01N 24/00 take precedence)
22/005 . {and using Stark effect modulation}
22/02 . Investigating the presence of flaws
22/04 . Investigating moisture content

23/00 Investigating or analysing materials by the use of wave or particle radiation not covered by groups G01N 3/00 – G01N 17/00, G01N 21/00 or G01N 22/00
23/005 . {by using neutrons (G01N 23/02 - G01N 23/227 take precedence)}
23/02 . by transmitting the radiation through the material
23/025 . . {using neutrons}
23/04 . . and forming images of the material

WARNING

Group G01N 23/04 is impacted by reclassification into groups G01N 23/041 and G01N 23/044.

Groups G01N 23/04, G01N 23/041, and G01N 23/044 should be considered in order to perform a complete search.

23/041 . . . Phase-contrast imaging, e.g. using grating interferometers

WARNING

Group G01N 23/041 is incomplete pending reclassification of documents from groups G01N 23/04 and G01N 23/043.

Groups G01N 23/04, G01N 23/043, and G01N 23/041 should be considered in order to perform a complete search.

23/043 . . . {using fluoroscopic examination, with visual observation or video transmission of fluoroscopic images}

WARNING

Group G01N 23/043 is impacted by reclassification into groups G01N 23/041 and G01N 23/044.

Groups G01N 23/043, G01N 23/041, and G01N 23/044 should be considered in order to perform a complete search.

23/044 . . . using laminography or tomosynthesis

WARNING

Group G01N 23/044 is incomplete pending reclassification of documents from groups G01N 23/04 and G01N 23/043.

Groups G01N 23/04, G01N 23/043, and G01N 23/044 should be considered in order to perform a complete search.

23/046 . . . using tomography, e.g. computed tomography [CT]

23/05 . . . using neutrons

23/06 . . and measuring the absorption

WARNING

Group G01N 23/06 is impacted by reclassification into group G01N 23/083.

All groups listed in this Warning should be considered in order to perform a complete search.

23/083 . . . the radiation being X-rays

WARNING

Group G01N 23/083 is incomplete pending reclassification of documents from groups G01N 23/06 and G01N 23/10 – G01N 23/185.

All groups listed in this Warning should be considered in order to perform a complete search.

23/085 . . . . X-ray absorption fine structure [XAFS], e.g. extended XAFS [EXAFS]

23/087 . . . . using polyenergetic X-rays

23/09 . . . the radiation being neutrons

WARNING

Group G01N 23/09 is impacted by reclassification into groups G01N 23/10, G01N 23/12, G01N 23/125, G01N 23/16, and G01N 23/18.

All groups listed in this Warning should be considered in order to perform a complete search.

23/095 . . . Gamma-ray resonance absorption, e.g. using the Mössbauer effect

23/10 . . . the material being confined in a container, e.g. in a luggage X-ray scanners

WARNING

Group G01N 23/10 is incomplete pending reclassification of documents from group G01N 23/09.

Group G01N 23/10 is also impacted by reclassification into group G01N 23/083.

Groups G01N 23/09, G01N 23/10, and G01N 23/083 should be considered in order to perform a complete search.

23/12 . . . the material being a flowing fluid or a flowing granular solid

WARNING

Group G01N 23/12 is incomplete pending reclassification of documents from group G01N 23/09.

Group G01N 23/12 is also impacted by reclassification into group G01N 23/083.

Groups G01N 23/09, G01N 23/12, and G01N 23/083 should be considered in order to perform a complete search.

23/125 . . . . {with immerged detecting head}

WARNING

Group G01N 23/125 is incomplete pending reclassification of documents from group G01N 23/09.

Group G01N 23/125 is also impacted by reclassification into group G01N 23/083.

Groups G01N 23/09, G01N 23/125, and G01N 23/083 should be considered in order to perform a complete search.

23/16 . . . the material being a moving sheet or film

WARNING

Group G01N 23/16 is incomplete pending reclassification of documents from groups G01N 23/09, G01N 23/18, and G01N 23/185.

Group G01N 23/16 is also impacted by reclassification into group G01N 23/083.

All groups listed in this Warning should be considered in order to perform a complete search.

23/18 . . . Investigating the presence of flaws defects or foreign matter

WARNING

Group G01N 23/18 is incomplete pending reclassification of documents from group G01N 23/09.

Group G01N 23/18 is also impacted by reclassification into groups G01N 23/083, and G01N 23/16.

Groups G01N 23/09, G01N 23/18, and G01N 23/16 should be considered in order to perform a complete search.

23/185 . . . . {in tyres}

WARNING

Group G01N 23/185 is impacted by reclassification into groups G01N 23/083, and G01N 23/16.

All groups listed in this Warning should be considered in order to perform a complete search.

23/20 . by using diffraction of the radiation by the materials, e.g. for investigating crystal structure; by using scattering of the radiation by the materials, e.g. for investigating non-crystalline materials; by using reflection of the radiation by the materials

23/20008 . . Constructional details of analysers, e.g. characterised by X-ray source, detector or optical system; Accessories therefor; Preparing specimens therefor (monochromators for X- rays using crystals G21K 1/06)

23/20016 . . . Goniometers

23/20025 . . . Sample holders or supports therefor

23/20033 . . . . provided with temperature control or heating means

23/20041 . . . . for high pressure testing, e.g. anvil cells

23/2005 . . . Preparation of specimens samples therefor

23/20058 . . Measuring diffraction of electrons, e.g. low energy electron diffraction [LEED] method or reflection high energy electron diffraction [RHEED] method

23/20066 . . Measuring inelastic scatter of gamma rays, e.g. Compton effect

23/20075 . . {by measuring interferences of X-rays, e.g. Borrmann effect}

23/20083 . . {by using a combination of at least two measurements at least one being a transmission measurement and one a scatter measurement}

23/20091 . . Measuring the energy-dispersion spectrum [EDS] of diffracted radiation

23/201 . . by measuring small-angle scattering

WARNING

Group G01N 23/201 is impacted by reclassification into groups G01N 23/205, G01N 23/207, and G01N 23/2073.

All groups listed in this Warning should be considered in order to perform a complete search.

23/202 . . . using neutrons

WARNING

Group G01N 23/202 is impacted by reclassification into groups G01N 23/205, G01N 23/207, and G01N 23/2073.

All groups listed in this Warning should be considered in order to perform a complete search.

23/203 . . Measuring back scattering

23/204 . . . using neutrons

23/205 . . using diffraction cameras

WARNING

Group G01N 23/205 is incomplete pending reclassification of documents from groups G01N 23/201 and G01N 23/202.

Groups G01N 23/201, G01N 23/202 and G01N 23/205 should be considered in order to perform a complete search.

23/2055 . . Analysing diffraction patterns

23/207 . . Diffractometry using detectors, e.g. using a probe in a central position and one or more displaceable detectors in circumferential positions

WARNING

Group G01N 23/207 is incomplete pending reclassification of documents from groups G01N 23/201 and G01N 23/202.

Groups G01N 23/201, G01N 23/202 and G01N 23/207 should be considered in order to perform a complete search.

23/2073 . . . {using neutron detectors (neutron spectrometry G01T 3/00)}

WARNING

Group G01N 23/2073 is incomplete pending reclassification of documents from groups G01N 23/201 and G01N 23/202.

Groups G01N 23/201, G01N 23/202 and G01N 23/2073 should be considered in order to perform a complete search.

23/2076 . . . {for spectrometry, i.e. using an analysing crystal, e.g. for measuring X-ray fluorescence spectrum of a sample with wavelength-dispersion, i.e. WDXFS}

WARNING

Group G01N 23/2076 is impacted by reclassification into group G01N 23/223.

Groups G01N 23/2076 and G01N 23/223 should be considered in order to perform a complete search.

23/22 . by measuring secondary emission from the material

NOTE

Devices per se are classified in the relevant places, e.g. H01J 37/00, H01J 49/00

WARNING

Group G01N 23/22 is impacted by reclassification into group G01N 23/2209.

Groups G01N 23/22 and G01N 23/2209 should be considered in order to perform a complete search.

23/2202 . . Preparing specimens therefor

23/2204 . . Specimen supports therefor; Sample conveying means therefore

23/2206 . . Combination of two or more measurements, at least one measurement being that of secondary emission, e.g. combination of secondary electron [SE] measurement and back-scattered electron [BSE] measurement

23/2208 . . . all measurements being of a secondary emission, e.g. combination of SE measurement and characteristic X-ray measurement

23/2209 . . using wavelength dispersive spectroscopy [WDS]

WARNING

Group G01N 23/2209 is incomplete pending reclassification of documents from group G01N 23/22.

Groups G01N 23/22 and G01N 23/2209 should be considered in order to perform a complete search.

23/221 . . by activation analysis

23/222 . . . using neutron activation analysis [NAA]

23/223 . . by irradiating the sample with X-rays or gamma-rays and by measuring X-ray fluorescence

WARNING

Group G01N 23/223 is incomplete pending reclassification of documents from group G01N 23/2076.

Groups G01N 23/2076 and G01N 23/223 should be considered in order to perform a complete search.

23/225 . . using electron or ion

23/2251 . . . using incident electron beams, e.g. scanning electron microscopy [SEM]

23/2252 . . . . Measuring emitted X-rays, e.g. electron probe microanalysis [EPMA]

23/2254 . . . . Measuring cathodoluminescence

23/2255 . . . using incident ion beams, e.g. proton beams

23/2257 . . . . Measuring excited X-rays, i.e. particle-induced X-ray emission [PIXE]

23/2258 . . . . Measuring secondary ion emission, e.g. secondary ion mass spectrometry [SIMS] (mass-to-charge ratio analysis aspects of SIMS for material analysis G01N 27/62)

WARNING

Group G01N 23/2258 is impacted by reclassification into group G01N 27/62.

Groups G01N 23/2258 and G01N 27/62 should be considered in order to perform a complete search.

23/227 . . Measuring photoelectric effect, e.g. photoelectron emission microscopy [PEEM]

23/2273 . . . Measuring photoelectron spectrum, e.g. electron spectroscopy for chemical analysis [ESCA] or X-ray photoelectron spectroscopy [XPS]

23/2276 . . . using the Auger effect, e.g. Auger electron spectroscopy [AES]

24/00 Investigating or analyzing materials by the use of nuclear magnetic resonance, electron paramagnetic resonance or other spin effects (arrangements or instruments for measuring magnetic resonance effects G01R 33/20)

24/002 . {Using resonance on molecular beams (atomic clocks G04F 5/14; beam masers H01S 1/06)}

24/004 . {Using acoustical resonance, i.e. phonon interactions}

24/006 . {using optical pumping (magnetometers using optical pumping G01R 33/26, optical pumping of lasers H01S 3/091)}

24/008 . {by using resonance effects in zero field, e.g. in microwave, submillimetric region (by measuring absorption of microwaves by the material G01N 22/00)}

24/08 . by using nuclear magnetic resonance (G01N 24/12 takes precedence)

24/081 . . {Making measurements of geologic samples, e.g. measurements of moisture, pH, porosity, permeability, tortuosity or viscosity}

24/082 . . {Measurement of solid, liquid or gas content}

24/084 . . {Detection of potentially hazardous samples, e.g. toxic samples, explosives, drugs, firearms, weapons}

24/085 . . {Analysis of materials for the purpose of controlling industrial production systems}

24/087 . . {Structure determination of a chemical compound, e.g. of a biomolecule such as a protein}

24/088 . . {Assessment or manipulation of a chemical or biochemical reaction, e.g. verification whether a chemical reaction occurred or whether a ligand binds to a receptor in drug screening or assessing reaction kinetics}

24/10 . by using electron paramagnetic resonance (G01N 24/12 takes precedence)

24/12 . by using double resonance

24/14 . by using cyclotron resonance

25/00 Investigating or analyzing materials by the use of thermal means (G01N 3/00 - G01N 23/00 take precedence)

25/005 . {by investigating specific heat}

25/02 . by investigating changes of state or changes of phase; by investigating sintering {(investigating or analysing oils or hydrocarbon fluids by measuring cloud point or pour point G01N 33/2811)}

25/04 . . of melting point; of freezing point; of softening point

25/06 . . . Analysis by measuring change of freezing point

25/08 . . of boiling point

25/085 . . . {Investigating nucleation}

25/10 . . . Analysis by measuring change of boiling point

25/12 . . of critical point; of other phase change

25/14 . by using distillation, extraction, sublimation, condensation, freezing, or crystallisation (G01N 25/02 takes precedence)

25/142 . . {by condensation}

25/145 . . {Accessories, e.g. cooling devices (in general B01L, F25D)}

25/147 . . {by cristallisation}

25/16 . by investigating thermal coefficient of expansion

25/18 . by investigating thermal conductivity (by calorimetry G01N 25/20; by measuring change of resistance of an electrically-heated body G01N 27/18)

25/20 . by investigating the development of heat, i.e. calorimetry, e.g. by measuring specific heat, by measuring thermal conductivity (calorimeters per se G01K)

25/22 . . on combustion or catalytic oxidation, e.g. of components of gas mixtures

25/24 . . . using combustion tubes, e.g. for microanalysis

25/26 . . . using combustion with oxygen under pressure, e.g. in bomb calorimeter
25/28 . . . the rise in temperature of the gases resulting from combustion being measured directly
25/30 . . . . using electric temperature-responsive elements
25/32 . . . . . using thermoelectric elements
25/34 . . . . using mechanical temperature-responsive elements, e.g. bimetallic (bimetallic elements per se G12B 1/02)
25/36 . . . . . for investigating the composition of gas mixtures
25/38 . . . . using the melting or combustion of a solid
25/385 . . . . . {for investigating the composition of gas mixtures}
25/40 . . . the heat developed being transferred to a flowing fluid
25/42 . . . . continuously
25/44 . . . the heat developed being transferred to a fixed quantity of fluid
25/46 . . . . for investigating the composition of gas mixtures
25/48 . . on solution, sorption, or a chemical reaction not involving combustion or catalytic oxidation
25/4806 . . . {Details not adapted to a particular type of sample}
25/4813 . . . . {concerning the measuring means}
25/482 . . . . . {concerning the temperature responsive elements (measuring temperature or quantity of heat, thermally-sensitive elements G01K; thermoelectric devices H01L 35/00, H01L 37/00)}
25/4826 . . . . {concerning the heating or cooling arrangements (heating apparatus for chemical or physical laboratory apparatus in general B01L 7/00)}
25/4833 . . . . . {specially adapted for temperature scanning}
25/484 . . . . {Heat insulation}
25/4846 . . . {for a motionless, e.g. solid sample}
25/4853 . . . . {Details}
25/486 . . . . . {Sample holders}
25/4866 . . . . {by using a differential method}
25/4873 . . . {for a flowing, e.g. gas sample}
25/488 . . . . {Details}
25/4886 . . . . . {concerning the circulation of the sample}
25/4893 . . . . {by using a differential method}
25/50 . by investigating flash-point; by investigating explosibility
25/52 . . by determining flash-point of liquids
25/54 . . by determining explosibility
25/56 . by investigating moisture content
25/58 . . by measuring changes of properties of the material due to heat, cold or expansion
25/60 . . . for determining the wetness of steam
25/62 . . by psychrometric means, e.g. wet-and-dry bulb thermometers
25/64 . . . using electric temperature-responsive elements
25/66 . . by investigating dew-point
25/68 . . . by varying the temperature of a condensing surface
25/70 . . . by varying the temperature of the material, e.g. by compression, by expansion
25/72 . Investigating presence of flaws (by investigating thermal conductivity G01N 25/18)

27/00 Investigating or analysing materials by the use of electric, electro-chemical, or magnetic means (G01N 3/00 - G01N 25/00 take precedence; measurement or testing electric or magnetic variables or of electric or magnetic properties of materials G01R)

27/002 . {by investigating the work function voltage}
27/005 . . {by determining the work function in vacuum}
27/007 . {by investigating the electric dipolar moment (measuring piezo-electric properties G01R 29/22)}
27/02 . by investigating the impedance of the material
27/021 . . {before and after chemical transformation of the material}
27/023 . . {where the material is placed in the field of a coil}
27/025 . . . {a current being generated within the material by induction}
27/026 . . {Dielectric impedance spectroscopy (electrochemical impedance spectroscopy for measuring corrosion G01N 17/02)}
27/028 . . {Circuits therefor (measuring impedance per se G01R 27/02)}
27/04 . . by investigating resistance {(for measuring the amount of particles G01N 15/0656)}
27/041 . . . {of a solid body}
27/043 . . . {of a granular material}
27/045 . . . {Circuits (measuring resistance per se G01R 27/00, e.g. G01R 27/22)}
27/046 . . . . {provided with temperature compensation}
27/048 . . . {for determining moisture content of the material}
27/06 . . . of a liquid (involving electrolysis G01N 27/26; involving polarography G01N 27/48; measuring electric resistance of fluids G01R 27/22)
27/07 . . . . Construction of measuring vessels; Electrodes therefor
27/08 . . . . which is flowing continuously
27/10 . . . . . Investigation or analysis specially adapted for controlling or monitoring operations or for signalling (regulating G05D)
27/12 . . . of a solid body in dependence upon absorption of a fluid; of a solid body in dependence upon reaction with a fluid {, for detecting components in the fluid}
27/121 . . . . {for determining moisture content, e.g. humidity, of the fluid (moisture content of the tested material G01N 27/048)}
27/122 . . . . {Circuits particularly adapted therefor, e.g. linearising circuits}
27/123 . . . . . {for controlling the temperature (temperature control per se G05D 23/00)}
27/124 . . . . . {varying the temperature, e.g. in a cyclic manner}
27/125 . . . . {Composition of the body, e.g. the composition of its sensitive layer}
27/126 . . . . . {comprising organic polymers}
27/127 . . . . . {comprising nanoparticles}
27/128 . . . . {Microapparatus}

27/129 . . . . {Diode type sensors, e.g. gas sensitive Schottky diodes (capacitor type sensors G01N 27/227; field-effect transistor type sensors G01N 27/414)}
27/14 . . . of an electrically-heated body in dependence upon change of temperature
27/16 . . . . caused by burning or catalytic oxidation of a surrounding material to be tested, e.g. of gas
27/18 . . . . caused by changes in the thermal conductivity of a surrounding material to be tested (G01N 27/20 takes precedence)
27/185 . . . . . {using a catharometer}
27/20 . . . Investigating the presence of flaws
27/205 . . . . {in insulating materials}
27/22 . . by investigating capacitance
27/221 . . . {by investigating the dielectric properties (using microwaves G01N 22/00; measuring loss factors or dielectric constants per se G01R 27/26)}
2027/222 . . . . {for analysing gases}
27/223 . . . {for determining moisture content, e.g. humidity (rain detectors on vehicle windows B60S 1/0825)}
27/225 . . . . {by using hygroscopic materials}
27/226 . . . {Construction of measuring vessels; Electrodes therefor}
27/227 . . . {Sensors changing capacitance upon adsorption or absorption of fluid components, e.g. electrolyte-insulator-semiconductor sensors, MOS capacitors (G01N 27/225 takes precedence)}
27/228 . . . {Circuits therefor (measuring capacitance per se G01R 27/26)}
27/24 . . . Investigating the presence of flaws
27/26 . by investigating electrochemical variables; by using electrolysis or electrophoresis (investigating resistance to corrosion G01N 17/00; investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography, G01N 30/00; immunoelectrophoresis G01N 33/561; electrochemical processes or apparatus in general B01J; standard cells H01M 6/28)
27/27 . . Association of two or more measuring systems or cells, each measuring a different parameter, where the measurement results may be either used independently, the systems or cells being physically associated, or combined to produce a value for a further parameter {, e.g. electrochemical electrode arrays (gas sensor arrays G01N 33/0031)}
27/28 . . Electrolytic cell components
27/283 . . . {Means for supporting or introducing electrochemical probes}
27/286 . . . . {Power or signal connectors associated therewith}
27/30 . . . Electrodes, e.g. test electrodes; Half-cells (G01N 27/414 takes precedence)
27/301 . . . . {Reference electrodes}
27/302 . . . . {pH sensitive, e.g. quinhydron, antimony or hydrogen electrodes (ion selective electrodes G01N 27/333, glass electrodes G01N 27/36)}
27/304 . . . . {Gas permeable electrodes}
27/305 . . . . {optically transparent or photoresponsive electrodes}
27/307 . . . . {Disposable laminated or multilayered electrodes (G01N 27/3272 takes precedence)}
27/308 . . . . {at least partially made of carbon}
27/31 . . . . Half-cells with permeable membranes, e.g. semi-porous or perm-selective membranes
27/32 . . . . Calomel electrodes
27/327 . . . . Biochemical electrodes {electrical and mechanical details of in vitro measurements (chemical and biological details C12Q 1/00, G01N 33/543; in vivo A61B 5/00)}
27/3271 . . . . . {Amperometric enzyme electrodes for analytes in body fluids, e.g. glucose in blood (amperometry per se G01N 27/49; aspects concerning the enzyme reagent C12Q 1/001)}
27/3272 . . . . . {Test elements therefor, i.e. disposable laminated substrates with electrodes, reagent and channels (optical biosensors G01N 33/52)}
27/3273 . . . . . {Devices therefor, e.g. test element readers, circuitry (details not specific to biochemical electrodes G01N 33/4875)}
27/3274 . . . . . {Corrective measures, e.g. error detection, compensation for temperature or hematocrit, calibration (coding of calibration information G01N 33/48771)}
27/3275 . . . . . {Sensing specific biomolecules, e.g. nucleic acid strands, based on an electrode surface reaction}
27/3276 . . . . . {being a hybridisation with immobilised receptors (using a FET type sensor G01N 27/4145; concerning the hybridisation C12Q 1/68)}
27/3277 . . . . . {being a redox reaction, e.g. detection by cyclic voltammetry (voltammetry per se G01N 27/42, G01N 27/48)}
27/3278 . . . . . {involving nanosized elements, e.g. nanogaps or nanoparticles (nanopores G01N 33/48721; magnetic beads G01N 27/745)}
27/333 . . . . Ion-selective electrodes or membranes (glass electrodes G01N 27/36)
27/3335 . . . . . {the membrane containing at least one organic component (G01N 27/3271 takes precedence; aspects concerning the enzyme reagent in enzyme electrodes C12Q 1/001)}
27/34 . . . . Dropping-mercury electrodes
27/36 . . . . Glass electrodes
27/38 . . . . Cleaning of electrodes
27/40 . . . Semi-permeable membranes or partitions
27/401 . . . Salt-bridge leaks; Liquid junctions
27/403 . . Cells and electrode assemblies
27/4035 . . . {Combination of a single ion-sensing electrode and a single reference electrode (G01N 27/406 and G01N 27/413 take precedence)}
27/404 . . . Cells with anode, cathode and cell electrolyte on the same side of a permeable membrane which separates them from the sample fluid {, e.g. Clark-type oxygen sensors}
27/4045 . . . . {for gases other than oxygen}

27/406 . . . Cells and probes with solid electrolytes
27/4062 . . . . {Electrical connectors associated therewith}
27/4065 . . . . {Circuit arrangements specially adapted therefor}
27/4067 . . . . {Means for heating or controlling the temperature of the solid electrolyte}
27/407 . . . . for investigating or analysing gases {(G01N 27/411 takes precedence)}
27/4071 . . . . . {using sensor elements of laminated structure}
27/4072 . . . . . {characterized by the diffusion barrier}
27/4073 . . . . . {Composition or fabrication of the solid electrolyte}
27/4074 . . . . . {for detection of gases other than oxygen}
27/4075 . . . . . {Composition or fabrication of the electrodes and coatings thereon, e.g. catalysts}
27/4076 . . . . . {Reference electrodes or reference mixtures}
27/4077 . . . . . {Means for protecting the electrolyte or the electrodes}
27/4078 . . . . . {Means for sealing the sensor element in a housing}
27/409 . . . . . Oxygen concentration cells
27/41 . . . . . Oxygen pumping cells
27/411 . . . . for investigating liquid metals
27/4111 . . . . . {using sensor elements of laminated structure}
27/4112 . . . . . {Composition or fabrication of the solid electrolyte}
27/4114 . . . . . {for detection of gases other than oxygen}
27/4115 . . . . . {Composition or fabrication of the electrodes and coatings thereon, e.g. catalysts}
27/4117 . . . . . {Reference electrodes or reference mixtures}
27/4118 . . . . . {Means for protecting the electrolyte or the electrodes}
27/413 . . . Concentration cells using liquid electrolytes {measuring currents or voltages in voltaic cells}
27/414 . . . Ion-sensitive or chemical field-effect transistors, i.e. ISFETS or CHEMFETS
27/4141 . . . . {specially adapted for gases}
27/4143 . . . . . {Air gap between gate and channel, i.e. suspended gate [SG] FETs (work function measurement per se G01N 27/002)}
27/4145 . . . . {specially adapted for biomolecules, e.g. gate electrode with immobilised receptors}
27/4146 . . . . {involving nanosized elements, e.g. nanotubes, nanowires}
27/4148 . . . . {Integrated circuits therefor, e.g. fabricated by CMOS processing (CMOS processing per se H01L 21/82)}
27/416 . . Systems (G01N 27/27 takes precedence {; for testing batteries G01R 31/36})
27/4161 . . . {measuring the voltage and using a constant current supply, e.g. chronopotentiometry}
27/4162 . . . {investigating the composition of gases, by the influence exerted on ionic conductivity in a liquid (conductometry in general G01N 27/06; amperometric gas sensors G01N 27/404)}
27/4163 . . . {checking the operation of, or calibrating, the measuring apparatus (G01N 27/3274, G01N 27/4175 and G01N 33/0006 take precedence)}
27/4165 . . . . {for pH meters}
27/4166 . . . {measuring a particular property of an electrolyte}
27/4167 . . . . {pH (electrodes therefor G01N 27/302, G01N 27/36)}
27/4168 . . . . {Oxidation-reduction potential, e.g. for chlorination of water (water analysis G01N 33/18)}
27/417 . . . using cells {, i.e. more than one cell} and probes with solid electrolytes
27/4175 . . . . {Calibrating or checking the analyser}
27/419 . . . . Measuring voltages or currents of oxygen pumping cells and oxygen concentration cells
27/42 . . . Measuring deposition or liberation of materials from an electrolyte; Coulometry, i.e. measuring coulomb-equivalent of material in an electrolyte
27/423 . . . . {Coulometry}
27/426 . . . . {by weighing}
27/44 . . . . using electrolysis to regenerate a reagent, e.g. for titration
27/447 . . . using electrophoresis {(aspects concerning peptides or proteins C07K 1/26; for non-analytical purposes B01D 57/02; separating particles by dielectrophoresis B03C 5/00)}
27/44704 . . . . {Details; Accessories}
27/44708 . . . . . {Cooling}
27/44713 . . . . . {Particularly adapted electric power supply}
27/44717 . . . . . {Arrangements for investigating the separated zones, e.g. localising zones}
27/44721 . . . . . {by optical means}
27/44726 . . . . . {using specific dyes, markers or binding molecules}
27/4473 . . . . . {by electric means}
27/44734 . . . . . {by thermal means}
27/44739 . . . . . {Collecting the separated zones, e.g. blotting to a membrane or punching of gel spots}
27/44743 . . . . . {Introducing samples}
27/44747 . . . . . {Composition of gel or of carrier mixture}
27/44752 . . . . . {Controlling the zeta potential, e.g. by wall coatings}
27/44756 . . . . {Apparatus specially adapted therefor}
27/4476 . . . . . {of the density gradient type}
27/44765 . . . . . {of the counter-flow type}
27/44769 . . . . . {Continuous electrophoresis, i.e. the sample being continuously introduced, e.g. free flow electrophoresis [FFE]}
27/44773 . . . . . {Multi-stage electrophoresis, e.g. two-dimensional electrophoresis}
27/44778 . . . . . {on a common gel carrier, i.e. 2D gel electrophoresis}
27/44782 . . . . . {of a plurality of samples}
27/44786 . . . . . {of the magneto-electrophoresis type}
27/44791 . . . . . {Microapparatus (sample containers with integrated microfluidic structures B01L 3/5027)}
27/44795 . . . . . {Isoelectric focusing}

27/453 . . . . Cells therefor
27/48 . . . Polarography, i.e. measuring changes in current under a slowly-varying voltage
27/49 . . . Systems involving the determination of the current at a single specific value, or small range of values, of applied voltage for producing selective measurement of one or more particular ionic species
27/60 . by investigating electrostatic variables, e.g. electrographic flaw testing ({G01N 27/007 takes precedence } ; by investigating capacitance G01N 27/22)
27/605 . . {for determining moisture content, e.g. humidity}
27/61 . . Investigating the presence of flaws
27/62 . by investigating the ionisation of gases; by investigating electric discharges, e.g. emission of cathode

WARNING

Group G01N 27/62 is incomplete pending reclassification of documents from group G01N 23/2258.

Groups G01N 23/2258 and G01N 27/62 should be considered in order to perform a complete search.

27/622 . . {separating and identifying ionized molecules based on their mobility in a carrier gas, i.e. ion mobility spectrometry (mass spectrometry H01J 49/26)}
27/624 . . . {using a non-uniform electric field, i.e. differential mobility spectrometry [DMS] or high-field asymmetric-waveform ion-mobility spectrometry [FAIMS]}
27/626 . . {using heat to ionise a gas}
27/628 . . . {and a beam of energy, e.g. laser enhanced ionisation}
27/64 . . using wave or particle radiation to ionise a gas, e.g. in an ionisation chamber {(discharge tubes for measuring pressure of introduced gas or for detecting presence of gas H01J 41/02)}
27/66 . . . and measuring current or voltage
27/68 . . using electric discharge to ionise a gas
27/70 . . . and measuring current or voltage
27/72 . by investigating magnetic variables
27/725 . . {by using magneto-acoustical effects or the Barkhausen effect}
27/74 . . of fluids (G01N 24/00 takes precedence)
27/745 . . . {for detecting magnetic beads used in biochemical assays (concerning the assays G01N 33/54326; sensors therefor G01R 33/1269; automatic analysers therefor G01N 35/0098)}
27/76 . . . by investigating susceptibility {(measuring susceptibility G01R 33/16)}
27/80 . . for investigating mechanical hardness, e.g. by investigating saturation or remanence of ferromagnetic material
27/82 . . for investigating the presence of flaws
27/825 . . . {by using magnetic attraction force (G01N 27/84 takes precedence)}
27/83 . . . by investigating stray magnetic fields
27/84 . . . . by applying magnetic powder or magnetic ink
27/85 . . . . using magnetographic methods
27/87 . . . . using probes
27/90 . . . using eddy currents {(for measuring thickness G01B 7/06)}
27/9006 . . . . {Details}
27/9013 . . . . . {specially adapted for scanning}
27/902 . . . . . {by moving the sensors}
27/9026 . . . . . {by moving the material}
27/9033 . . . . . {Sensors}
27/904 . . . . {and more than one sensor}
27/9046 . . . . {by analysing electrical signals}
27/9053 . . . . . {Compensating for probe to workpiece spacing}
27/906 . . . . . {Compensating for velocity}
27/9066 . . . . . {by measuring the propagation time, or delaying the signals}
27/9073 . . . . {Recording measured data (in general G01D)}
27/908 . . . . . {synchronously with scanning}
27/9086 . . . . . {Calibrating of recording device}
27/9093 . . . . {arrangements for supporting or marking or rejecting, e.g. machines (sorting individual articles or bulk material fit to be sorted piece-meal, controlled indirectly by devices which detect or measure some feature of the article or material to be sorted B07C 5/00)}
27/92 . by investigating breakdown voltage (G01N 27/60, G01N 27/62 take precedence; testing of articles or specimens of solids or fluids for dielectric strength or breakdown voltage G01R 31/12)

29/00 Investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves; Visualisation of the interior of objects by transmitting ultrasonic or sonic waves through the object (G01N 3/00 - G01N 27/00 take precedence; measuring or indicating of ultrasonic, sonic or infrasonic waves in general G01H; systems using the reflection or reradiation of acoustic waves, e.g. acoustic imaging, G01S 15/00; obtaining records by techniques analogous to photography using ultrasonic, sonic or infrasonic waves G03B 42/06; {medical diagnosis by ultrasounds A61B 8/00; generating or transmitting mechanical or acoustic waves B06B, G10K; seismic or acoustic prospecting or detecting G01V 1/00})

29/02 . Analysing fluids (using acoustic emission techniques G01N 29/14 {; constructional or flow details for analysing fluids G01N 29/222; optoacoustic fluid cells G01N 29/2425})
29/022 . . {Fluid sensors based on microsensors, e.g. quartz crystal-microbalance [QCM], surface acoustic wave [SAW] devices, tuning forks, cantilevers, flexural plate wave [FPW] devices (microdevices per se B81B)}
29/024 . . by measuring propagation velocity or propagation time of acoustic waves
29/028 . . by measuring mechanical or acoustic impedance
29/032 . . by measuring attenuation of acoustic waves
29/036 . . by measuring frequency or resonance of acoustic waves
29/04 . Analysing solids (using acoustic emission techniques G01N 29/14)
29/041 . . {on the surface of the material, e.g. using Lamb, Rayleigh or shear waves}
29/043 . . {in the interior, e.g. by shear waves}

29/045 . . {by imparting shocks to the workpiece and detecting the vibrations or the acoustic waves caused by the shocks (measuring resonant frequency G01H 13/00; measuring strength properties by application of mechanical stress G01N 3/00)}

29/046 . . . {using the echo of particles imparting on a surface; using acoustic emission of particles (investigating concentration of particle suspensions G01N 15/06; devices for measuring flow of solids in suspension G01F 1/74)}

29/048 . . {Marking the faulty objects}

29/06 . . Visualisation of the interior, e.g. acoustic microscopy {(medical or veterinary diagnosis using sonic waves A61B 8/00; representation of acoustic wave distribution G01H 3/125, G01H 9/002; short-range imaging systems using reflection of acoustic waves G01S 15/8906)}

29/0609 . . . {Display arrangements, e.g. colour displays (indicating or recording in connection with measuring in general G01D)}

29/0618 . . . . {synchronised with scanning, e.g. in real-time}

29/0627 . . . . . {Cathode-ray tube displays (in general G01R 13/20)}

29/0636 . . . . . {with permanent recording}

29/0645 . . . . {Display representation or displayed parameters, e.g. A-, B- or C-Scan}

29/0654 . . . {Imaging}

29/0663 . . . . {by acoustic holography (acoustical holography per se G03H 3/00)}

29/0672 . . . . {by acoustic tomography (medical tomography A61B 8/13)}

29/0681 . . . . {by acoustic microscopy, e.g. scanning acoustic microscopy}

29/069 . . . . {Defect imaging, localisation and sizing using, e.g. time of flight diffraction [TOFD], synthetic aperture focusing technique [SAFT], Amplituden-Laufzeit-Ortskurven [ALOK] technique}

29/07 . . by measuring propagation velocity or propagation time of acoustic waves

29/075 . . . {by measuring or comparing phase angle (measuring frequencies or phase angles per se G01R 23/00, G01R 25/00)}

29/09 . . by measuring mechanical or acoustic impedance

29/11 . . by measuring attenuation of acoustic waves

29/12 . . by measuring frequency or resonance of acoustic waves {(measuring frequency or resonant frequency of mechanical vibrations or acoustic waves in general G01H 1/06, G01H 3/04, G01H 13/00; acoustic resonators G10K 11/04; vibration or shock testing of structures G01M 7/00)}

29/14 . using acoustic emission techniques {(echo of particles G01N 29/046; measuring mechanical vibrations or acoustic waves in solids in general G01H 1/00)}

29/22 . Details {, e.g. general constructional or apparatus details}

29/221 . . {Arrangements for directing or focusing the acoustical waves (electronic orientation or focusing G01N 29/262; sound directing or focusing G10K 11/26; mechanical steering of sound transducers or their beams G10K 11/35)}

29/222 . . {Constructional or flow details for analysing fluids (optoacoustic fluid cells G01N 29/2425)}

29/223 . . {Supports, positioning or alignment in fixed situation (mounting transducers per se G10K 11/004)}

29/225 . . {Supports, positioning or alignment in moving situation}

29/226 . . . {Handheld or portable devices}

29/227 . . {related to high pressure, tension or stress conditions}

29/228 . . {related to high temperature conditions}

29/24 . . Probes {(transducers for acoustic waves B06B, G10K; for measuring G01H)}

29/2406 . . . {Electrostatic or capacitive probes, e.g. electret or cMUT-probes}

29/2412 . . . {using the magnetostrictive properties of the material to be examined, e.g. electromagnetic acoustic transducers [EMAT]; (investigating the presence of flaws using eddy currents G01N 27/90, magnetostrictive transducers B06B 1/08, measuring magnetostrictive properties G01R 33/18)}

29/2418 . . . {using optoacoustic interaction with the material, e.g. laser radiation, photoacoustics (photoacoustic cells G01N 21/1702; measuring characteristics of vibrations by using radiation-sensitive means G01H 9/00; acousto-optical conversion techniques for short-range imaging G01S 15/8965; sound-producing devices using laser bundle G10K 15/046)}

29/2425 . . . . {optoacoustic fluid cells therefor}

29/2431 . . . {using other means for acoustic excitation, e.g. heat, microwaves, electron beams (sound producing devices not otherwise provided for G10K 15/04)}

29/2437 . . . {Piezoelectric probes}

29/2443 . . . . {Quartz crystal probes}

29/245 . . . . {Ceramic probes, e.g. lead zirconate titanate [PZT] probes}

29/2456 . . . {Focusing probes (focusing arrangements G01N 29/221)}

29/2462 . . . {Probes with waveguides, e.g. SAW devices}

29/2468 . . . {Probes with delay lines}

29/2475 . . . {Embedded probes, i.e. probes incorporated in objects to be inspected}

29/2481 . . . {Wireless probes, e.g. with transponders or radio links}

29/2487 . . . {Directing probes, e.g. angle probes (directing arrangements G01N 29/221)}

29/2493 . . . {Wheel shaped probes}

29/26 . . Arrangements for orientation or scanning {by relative movement of the head and the sensor (mechanical steering of sound transducers or their beams G10K 11/35)}

29/262 . . . {by electronic orientation or focusing, e.g. with phased arrays (phased arrays per se G10K 11/34)}

29/265 . . . by moving the sensor relative to a stationary material

29/27 . . . by moving the material relative to a stationary sensor
29/275 . . . by moving both the sensor and the material
29/28 . . providing acoustic coupling {, e.g. water (impedance matching G10K 11/02)}
29/30 . . Arrangements for calibrating or comparing, e.g. with standard objects
29/32 . . Arrangements for suppressing undesired influences, e.g. temperature or pressure variations {, compensating for signal noise}
29/323 . . . {compensating for pressure or tension variations}
29/326 . . . {compensating for temperature variations}
29/34 . Generating the ultrasonic, sonic or infrasonic waves {, e.g. electronic circuits specially adapted therefor}
29/341 . . {with time characteristics}
29/343 . . . {pulse waves, e.g. particular sequence of pulses, bursts}
29/345 . . . {continuous waves}
29/346 . . {with amplitude characteristics, e.g. modulated signal}
29/348 . . {with frequency characteristics, e.g. single frequency signals, chirp signals (measuring frequency of mechanical vibrations or acoustic waves in general G01H 1/06, G01H 3/04; measuring frequency or analysing frequency spectra G01R 23/00)}
29/36 . Detecting the response signal {, e.g. electronic circuits specially adapted therefor}
29/38 . . by time filtering, e.g. using time gates
29/40 . . by amplitude filtering, e.g. by applying a threshold {or by gain control}
29/42 . . by frequency filtering {or by tuning to resonant frequency}
29/44 . Processing the detected response signal {, e.g. electronic circuits specially adapted therefor (digital signal processing per se G06F 17/00)}
29/4409 . . {by comparison}
29/4418 . . . {with a model, e.g. best-fit, regression analysis}
29/4427 . . . {with stored values, e.g. threshold values}
29/4436 . . . {with a reference signal (amplitude comparison G01N 29/48)}
29/4445 . . {Classification of defects}
29/4454 . . {Signal recognition, e.g. specific values or portions, signal events, signatures}
29/4463 . . {Signal correction, e.g. distance amplitude correction [DAC], distance gain size [DGS], noise filtering}
29/4472 . . {Mathematical theories or simulation}
29/4481 . . {Neural networks}
29/449 . . {Statistical methods not provided for in G01N 29/4409, e.g. averaging, smoothing and interpolation}
29/46 . . by spectral analysis, e.g. Fourier analysis {or wavelet analysis (spectral signal processing per se G06F 17/14)}
29/48 . . by amplitude comparison
29/50 . . using auto-correlation techniques or cross-correlation techniques
29/52 . . using inversion methods other that spectral analysis, e.g. conjugated gradient inversion

30/00 Investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography (G01N 3/00 - G01N 29/00 take precedence; separation for the preparation or production of components B01D 15/00, B01D 53/02, B01D 53/14; solid sorbent compositions in general B01J 20/00; ion-exchange in general B01J 39/00 - B01J 49/00) **{or field flow fractionation** (for preparation or production of components B01D 21/00, B01D 43/00, B01D 45/00 or B03C)**}**

NOTE

In this group, the following term is used with the meaning indicated:
- "conditioning" refers to the adjustment or control of environmental parameters, e.g. temperature or pressure.

30/0005 . {Field flow fractionation}
2030/001 . . {hydrodynamic fractionation, e.g. CHDF or HDC}
2030/0015 . . {characterised by driving force}
2030/002 . . . {sedimentation or centrifugal FFF}
2030/0025 . . . {cross flow FFF}
2030/003 . . . . {Asymmetrical flow}
2030/0035 . . . {electrical field}
2030/004 . . {characterised by opposing force}
2030/0045 . . . {normal, i.e. diffusion or thermal FFF}
2030/005 . . . {steric FFF, i.e. diffusion negligible for larger particles; separation due to protrusion depth into carrier flow profile}
2030/0055 . . . {hyperlayer, i.e. different particle populations in hyperlayers elevated above wall}
2030/006 . . . . {lift hyperlayer, i.e. hydrodynamic lift forces dominate steric effect}
2030/0065 . . . {Dielectric FFF, i.e. opposing forces dominate hydrodynamic lift forces and steric effects}
2030/007 . . {programming of driving force (carrier programming G01N 30/02)}
2030/0075 . {Separation due to differential desorption}
2030/008 . . {Thermal desorption}
2030/0085 . . {the desorption energy being adapted to sample, e.g. laser tuned to molecular bonds}
2030/009 . {Extraction}
2030/0095 . {Separation specially adapted for use outside laboratory, e.g. field sampling, portable equipments}
30/02 . Column chromatography
2030/022 . . {characterised by the kind of separation mechanism}
2030/025 . . . {Gas chromatography}
2030/027 . . . {Liquid chromatography}
30/04 . . Preparation or injection of sample to be analysed
2030/042 . . . {Standards}
2030/045 . . . . {internal}
2030/047 . . . . {external}
30/06 . . . Preparation
2030/062 . . . . {extracting sample from raw material}
2030/065 . . . . {using different phases to separate parts of sample}
2030/067 . . . . {by reaction, e.g. derivatising the sample}
30/08 . . . . using an enricher

2030/085 . . . . . {using absorbing precolumn}
30/10 . . . . using a splitter
30/12 . . . . by evaporation
2030/121 . . . . . {cooling; cold traps}
2030/122 . . . . . {cryogenic focusing}
2030/123 . . . . . {using more than one trap}
2030/125 . . . . . {pyrolising}
2030/126 . . . . . {evaporating sample}
2030/127 . . . . . {PTV evaporation}
2030/128 . . . . . {Thermal desorption analysis}
30/14 . . . . by elimination of some components
2030/143 . . . . . {selective absorption}
2030/146 . . . . . {using membranes}
30/16 . . . Injection (G01N 30/24 takes precedence)
2030/162 . . . . {electromigration}
2030/165 . . . . {retention gaps}
2030/167 . . . . {on-column injection}
30/18 . . . . using a septum or microsyringe
2030/185 . . . . . {specially adapted to seal the inlet}
30/20 . . . . using a sampling valve
2030/201 . . . . . {multiport valves, i.e. having more than two ports}
2030/202 . . . . . {rotary valves}
2030/204 . . . . . {Linearly moving valves, e.g. sliding valves}
2030/205 . . . . . {Diaphragm valves, e.g. deformed member closing the passage}
2030/207 . . . . . {with metering cavity, e.g. sample loop}
2030/208 . . . . . {with more than one cavity}
30/22 . . . . in high pressure liquid systems
30/24 . . . Automatic injection systems
30/26 . . Conditioning of the fluid carrier; Flow patterns
30/28 . . . Control of physical parameters of the fluid carrier
2030/285 . . . . {electrically driven carrier}
30/30 . . . . of temperature
2030/3007 . . . . . {same temperature for whole column}
2030/3015 . . . . . {temperature gradients along column}
2030/3023 . . . . . {using cryogenic fluids}
2030/303 . . . . . {using peltier elements}
2030/3038 . . . . . {temperature control of column exit, e.g. of restrictors}
2030/3046 . . . . . {temperature control of column inlet}
2030/3053 . . . . . {using resistive heating}
2030/3061 . . . . . {column or associated structural member used as heater}
2030/3069 . . . . . {electrical resistance used to determine control temperature}
2030/3076 . . . . . {using specially adapted T(t) profile}
2030/3084 . . . . . {ovens}
2030/3092 . . . . . {Heat exchange between incoming and outgoing mobile phase}
30/32 . . . . of pressure or speed (G01N 30/36 takes precedence)
2030/322 . . . . . {pulse dampers}
2030/324 . . . . . {speed, flow rate}
2030/326 . . . . . {pumps}
2030/328 . . . . . {valves, e.g. check valves of pumps}
30/34 . . . . of fluid composition, e.g. gradient (G01N 30/36 takes precedence)
2030/342 . . . . . {fluid composition fixed during analysis}
2030/345 . . . . . {fluid electrical conductivity fixed during analysis}
2030/347 . . . . . {mixers}
30/36 . . . . in high pressure liquid systems
30/38 . . . Flow patterns
2030/381 . . . . {centrifugal chromatography}
2030/382 . . . . {flow switching in a single column}
2030/383 . . . . . {by using auxiliary fluid}
2030/385 . . . . . {by switching valves}
2030/386 . . . . {Radial chromatography, i.e. with mobile phase traversing radially the stationary phase}
2030/387 . . . . {Turbulent flow of mobile phase}
2030/388 . . . . {Elution in two different directions on one stationary phase}
30/40 . . . . using back flushing
2030/402 . . . . . {purging a device}
2030/405 . . . . . {re-concentrating or inverting previous separation}
2030/407 . . . . . {carrying out another separation}
30/42 . . . . using counter-current
30/44 . . . . using recycling of the fraction to be distributed
2030/445 . . . . . {heart cut}
30/46 . . . . using more than one column {(G01N 30/44 takes precedence)}
30/461 . . . . . {with serial coupling of separation columns}
30/462 . . . . . {with different eluents or with eluents in different states (G01N 30/463 takes precedence)}
30/463 . . . . . {for multidimensional chromatography}
30/465 . . . . . {with specially adapted interfaces between the columns}
30/466 . . . . . {with separation columns in parallel}
30/467 . . . . . {all columns being identical}
30/468 . . . . . {involving switching between different column configurations}
30/48 . . {Sorbent materials therefor}
30/482 . . . {Solid sorbents}
2030/484 . . . {Solid sorbents}
2030/486 . . . {gels}
2030/488 . . . {liquid sorbents}
30/50 . . Conditioning of the sorbent material or stationary liquid
30/52 . . . Physical parameters
2030/521 . . . . {form}
2030/522 . . . . {pressure}
2030/524 . . . . {structural properties}
2030/525 . . . . . {surface properties, e.g. porosity}
2030/527 . . . . . {sorbent material in form of a membrane}
2030/528 . . . . . {Monolithic sorbent material}
30/54 . . . . Temperature
30/56 . . . Packing methods or coating methods
2030/562 . . . . {packing}
2030/565 . . . . . {slurry packing}
2030/567 . . . . {coating}
30/58 . . . the sorbent moving as a whole
2030/582 . . . . {micellar electrokinetic capillary chromatography [MECC]}
2030/585 . . . . {Parallel current chromatography}
2030/587 . . . . {Continuous annular chromatography}

30/60 . . Construction of the column
30/6004 . . . {end pieces}
2030/6008 . . . . {capillary restrictors}
2030/6013 . . . . {interfaces to detectors}
30/6017 . . . . {Fluid distributors}
30/6021 . . . . {Adjustable pistons}
30/6026 . . . . {Fluid seals}
30/603 . . . . {retaining the stationary phase, e.g. Frits}
30/6034 . . . {joining multiple columns}
30/6039 . . . . {in series}
30/6043 . . . . {in parallel}
30/6047 . . . {with supporting means; Holders}
30/6052 . . . {body}
30/606 . . . . {with fluid access or exit ports}
30/6065 . . . . {with varying cross section}
30/6069 . . . . {with compartments or bed substructure}
30/6073 . . . . {in open tubular form}
30/6078 . . . . . {Capillaries}
30/6082 . . . . {transparent to radiation}
30/6086 . . . . {form designed to optimise dispersion}
30/6091 . . . {Cartridges}
30/6095 . . . {Micromachined or nanomachined, e.g. micro- or nanosize}

NOTE

Attention is drawn to the Notes following the titles of class B81 and subclass B81B relating to "microstructural devices" and "microstructural systems" and the Notes following the title of subclass B82B relating to "nanostructures"

30/62 . . Detectors specially adapted therefor
2030/621 . . . {signal-to-noise ratio}
2030/623 . . . . {by modulation of sample feed or detector response}
2030/625 . . . . {by measuring reference material, e.g. carrier without sample}
2030/626 . . . {calibration, baseline}
2030/628 . . . {Multiplexing, i.e. several columns sharing a single detector}
30/64 . . . Electrical detectors
2030/642 . . . . {photoionisation detectors}
2030/645 . . . . {electrical conductivity detectors}
2030/647 . . . . {surface ionisation}
30/66 . . . . Thermal conductivity detectors
30/68 . . . . Flame ionisation detectors
2030/685 . . . . {flame photometry}
30/70 . . . . Electron capture detectors
30/72 . . . Mass spectrometers {(mass spectrometers per se H01J 49/00)}
30/7206 . . . . {interfaced to gas chromatograph (interfaces in general for introducing or extracting samples to be analysed with specially adapted mass spectrometer, see H01J 49/04)}
30/7213 . . . . . {splitting of the gaseous effluent}
30/722 . . . . . {through a gas permeable barrier (membranes, porous layers)}
2030/7226 . . . . . {OWTC, short capillaries or transfer line used as column}
30/7233 . . . . {interfaced to liquid or superfluid chromatograph (interfaces in general for introducing or extracting samples to be analysed with specially adapted mass spectrometer, see H01J 49/04)}
30/724 . . . . . {Nebulising, aerosol formation or ionisation (spraying or atomising in general B05B)}
30/7246 . . . . . {by pneumatic means}
30/7253 . . . . . {by thermal means, e.g. thermospray}
30/726 . . . . . {by electrical or glow discharge}
30/7266 . . . . . {by electric field, e.g. electrospray}
30/7273 . . . . . {Desolvation chambers}
30/728 . . . . {Intermediate storage of effluent, including condensation on surface}
30/7286 . . . . . {the store moving as a whole, e.g. moving wire}
30/7293 . . . . {Velocity or momentum separators}
30/74 . . . Optical detectors {(measurement of intensity, velocity, spectral content, polarisation, or phase of infra-red, visible or ultra-violet light G01J)}
2030/743 . . . . {FTIR}
2030/746 . . . . {detecting along the line of flow, e.g. axial}
30/76 . . . Acoustical detectors {(measurement of mechanical vibrations or ultrasonic, sonic or infrasonic waves G01H)}
2030/765 . . . . {for measuring mechanical vibrations}
2030/77 . . . {detecting radioactive properties}
30/78 . . . using more than one detector
30/80 . . Fraction collectors
30/82 . . . Automatic means therefor
30/84 . . Preparation of the fraction to be distributed
2030/8405 . . . {using pyrolysis}
2030/8411 . . . {Intermediate storage of effluent, including condensation on surface}
2030/8417 . . . . {the store moving as a whole, e.g. moving wire}
2030/8423 . . . {using permeable separator tubes}
2030/8429 . . . {adding modificating material}
2030/8435 . . . . {for chemical reaction}
2030/8441 . . . . {to modify physical properties}
2030/8447 . . . {Nebulising, aerosol formation or ionisation}
2030/8452 . . . . {Generation of electrically charged aerosols or ions}
2030/8458 . . . . . {of ions or clusters of individual ions}
2030/8464 . . . . {Uncharged atoms or aerosols}
2030/847 . . . . {by pneumatic means}
2030/8476 . . . . {by thermal means}
2030/8482 . . . . {by electrical or glow discharge}
2030/8488 . . . . {by electric field}
2030/8494 . . . . {Desolvation chambers}
30/86 . . Signal analysis
30/8603 . . . {with integration or differentiation}
30/8606 . . . . {Integration}
30/861 . . . . {Differentiation}
30/8613 . . . . {Dividing or multiplying by a constant}
30/8617 . . . . {Filtering, e.g. Fourier filtering}
2030/862 . . . . {Other mathematical operations for data preprocessing}
30/8624 . . . {Detection of slopes or peaks; baseline correction}
30/8627 . . . . {Slopes}
30/8631 . . . . {Peaks}

30/8634 . . . . . {Peak quality criteria}
30/8637 . . . . . {Peak shape}
30/8641 . . . . {Baseline}
30/8644 . . . . {Data segmentation, e.g. time windows}
2030/8648 . . . . {Feature extraction not otherwise provided for}
30/8651 . . . {Recording, data aquisition, archiving and storage}
30/8655 . . . . {Details of data formats}
30/8658 . . . {Optimising operation parameters}
30/8662 . . . . {Expert systems; optimising a large number of parameters}
30/8665 . . . {for calibrating the measuring apparatus}
30/8668 . . . . {using retention times}
30/8672 . . . . {not depending on an individual instrument, e.g. retention time indexes or calibration transfer}
30/8675 . . . {Evaluation, i.e. decoding of the signal into analytical information (for analysis of specific compounds see also G01N 30/88 and subgroups of G01N 33/00; chemical libraries per se C40B)}
30/8679 . . . . {Target compound analysis, i.e. whereby a limited number of peaks is analysed}
30/8682 . . . . {Group type analysis, e.g. of components having structural properties in common}
30/8686 . . . . {Fingerprinting, e.g. without prior knowledge of the sample components}
30/8689 . . . . {Peak purity of co-eluting compounds}
30/8693 . . . {Models, e.g. prediction of retention times, method development and validation}
30/8696 . . . {Details of Software}
30/88 . . Integrated analysis systems specially adapted therefor, not covered by a single one of the groups G01N 30/04 - G01N 30/86 (signal analysis systems per se G06F, G06G)
2030/8804 . . . {automated systems}
2030/8809 . . . {analysis specially adapted for the sample}
2030/8813 . . . . {biological materials}
2030/8818 . . . . . {involving amino acids}
2030/8822 . . . . . {involving blood}
2030/8827 . . . . . {involving nucleic acids}
2030/8831 . . . . . {involving peptides or proteins}
2030/8836 . . . . . {involving saccharides}
2030/884 . . . . {organic compounds}
2030/8845 . . . . . {involving halogenated organic compounds}
2030/885 . . . . . {involving polymers}
2030/8854 . . . . . {involving hydrocarbons}
2030/8859 . . . . {inorganic compounds}
2030/8863 . . . . . {Fullerenes}
2030/8868 . . . . {elemental analysis, e.g. isotope dilution analysis}
2030/8872 . . . . {impurities}
2030/8877 . . . . {optical isomers}
2030/8881 . . . {Modular construction, specially adapted therefor}
2030/8886 . . . {Analysis of industrial production processes}
2030/889 . . . {monitoring the quality of the stationary phase; column performance}
2030/8895 . . . {Independent juxtaposition of embodiments; Reviews}
30/89 . Inverse chromatography
30/90 . Plate chromatography, e.g. thin layer or paper chromatography
2030/903 . . {centrifugal chromatography}
2030/906 . . {pressurised fluid phase}
30/91 . . Application of the sample
30/92 . . Construction of the plate
30/93 . . . Application of the sorbent layer
30/94 . . Development
2030/945 . . . {Application of reagents to undeveloped plate}
30/95 . . Detectors specially adapted therefor; Signal analysis
30/96 . using ion-exchange (G01N 30/02, G01N 30/90 take precedence)
2030/965 . . {suppressor columns}

31/00 Investigating or analysing non-biological materials by the use of the chemical methods specified in the subgroup (testing the effectiveness or completeness of sterilisation procedures without using enzymes or microorganisms A61L 2/28; measuring or testing processes involving enzymes or microorganisms C12Q 1/00)**; Apparatus specially adapted for such methods**

31/002 . {Determining nitrogen by transformation into ammonia, e.g. KJELDAHL method}
31/005 . {investigating the presence of an element by oxidation (G01N 31/12 takes precedence)}
31/007 . . {by measuring the quantity of water resulting therefrom (G01N 31/12 takes precedence)}

NOTE

The observation of the progress of the reaction specified below by any of the methods specified in groups G01N 3/00 - G01N 3/00 - G01N 29/00, if this is of major importance, is dealt with in the group concerned.

31/02 . using precipitation {(measuring deposition or liberation of materials from an electrolyte G01N 27/42)}
31/10 . using catalysis
31/12 . using combustion (G01N 25/20 takes precedence)
31/16 . using titration
31/162 . . {Determining the equivalent point by means of a discontinuity}
31/164 . . . {by electrical or electrochemical means}
31/166 . . {Continuous titration of flowing liquids}
31/168 . . {Determining water content by using Karl Fischer reagent}
31/18 . . Burettes specially adapted for titration (burettes in general B01L 3/02)
31/20 . using microanalysis, e.g. drop reaction
31/22 . using chemical indicators (G01N 31/02 takes precedence)
31/221 . . {for investigating pH value}
31/222 . . {for investigating moisture content}
31/223 . . {for investigating presence of specific gases or aerosols (G01N 31/221, G01N 31/222 take precedence; actuation of fire alarm by presence of smoke or gases G08B 17/10)}
31/224 . . . {for investigating presence of dangerous gases}
31/225 . . . {for oxygen, e.g. including dissolved oxygen}
31/226 . . {for investigating the degree of sterilisation}
31/227 . . {for nitrates or nitrites}

31/228 . . {for peroxides}
31/229 . . {for investigating time/temperature history}

33/00 Investigating or analysing materials by specific methods not covered by groups G01N 1/00 - G01N 31/00

33/0001 . {by organoleptic means}
2033/0003 . {Composite materials}
33/0004 . {Gaseous mixtures, e.g. polluted air (gaseous biological material G01N 33/497; exhaust gas of internal combustion engines G01M 15/102)}
33/0006 . . {Calibrating gas analysers}
33/0008 . . . {Details concerning storage of calibration data, e.g. in EEPROM}
33/0009 . . {General constructional details of gas analysers, e.g. portable test equipment (G01N 1/22 takes precedence)}
33/0011 . . . {Sample conditioning (in general G01N 1/28)}
33/0013 . . . . {by a chemical reaction (G01N 33/0024 takes precedence)}
33/0014 . . . . {by eliminating a gas (G01N 33/0013 and G01N 33/0024 take precedence)}
33/0016 . . . . {by regulating a physical variable, e.g. pressure, temperature}
33/0018 . . . . {by diluting a gas}
2033/0019 . . . . {by preconcentration}
33/0021 . . . . {involving the use of a carrier gas for transport to the sensor}
33/0022 . . . {using a number of analysing channels}
33/0024 . . . . {a chemical reaction taking place or a gas being eliminated in one or more channels}
33/0026 . . . {use of an alternating circulation of another gas (calibrating gas analysers G01N 33/0006)}
33/0027 . . . {concerning the detector}
33/0029 . . . . {cleaning}
33/0031 . . . . {comprising two or more sensors, e.g. a sensor array (electrochemical electrode arrays G01N 27/27)}
33/0032 . . . . . {using two or more different physical functioning modes}
33/0034 . . . . . {comprising neural networks or related mathematical techniques}
33/0036 . . . . {Specially adapted to detect a particular component (all the other sub-groups of G01N 33/0004 take precedence)}
33/0037 . . . . . {for NOx}
33/0039 . . . . . {for O_3}
33/004 . . . . . {for CO, CO_2}
33/0042 . . . . . {for SO_2, SO_3}
33/0044 . . . . . {for H_2S, sulfides}
33/0045 . . . . . {for Hg}
33/0047 . . . . . {for organic compounds}
33/0049 . . . . . {for halogenated organic compounds}
33/005 . . . . . {for H_2}
33/0052 . . . . . {for gaseous halogens}
33/0054 . . . . . {for ammonia}
33/0055 . . . . . {for radionuclides}
33/0057 . . . . . {for warfare agents or explosives (properties of explosives G01N 33/227)}
33/0059 . . . . . {avoiding interference of a gas with the gas to be measured}
33/006 . . . . . {avoiding interference of water vapour with the gas to be measured}
33/0062 . . . {concerning the measuring method, e.g. intermittent, or the display, e.g. digital}
33/0063 . . . . {using a threshold to release an alarm or displaying means (alarm arrangements G08B, e.g. fire alarm actuated by the presence of smoke or gases G08B 17/10, for other abnormal conditions G08B 21/00)}
33/0065 . . . . . {using more than one threshold}
33/0067 . . . . {by measuring the rate of variation of the concentration}
2033/0068 . . . . {using a computer specifically programmed}
33/007 . . . {Arrangements to check the analyser (calibrating G01N 33/0006)}
2033/0072 . . . . {by generating a test gas}
33/0073 . . . {Control unit therefor}
33/0075 . . . . {for multiple spatially distributed sensors, e.g. for environmental monitoring (transmission systems for measured values G08C)}
2033/0077 . {testing material properties on individual granules or tablets}
2033/0078 . {testing material properties on manufactured objects}
2033/008 . . {sport articles (balls, skis, rackets)}
2033/0081 . . {containers; packages; bottles}
2033/0083 . . {vehicle parts}
2033/0085 . . . {wheels}
2033/0086 . . {clothes; hosiery}
2033/0088 . . {other articles}
2033/009 . . . {seals}
2033/0091 . {Powders}
2033/0093 . {radioactive materials}
2033/0095 . {Semiconductive materials}
2033/0096 . {testing material properties on thin layers or coatings}
33/0098 . {Plants or trees (wood G01N 33/46)}
33/02 . Food
33/025 . . {Fruits or vegetables}
33/03 . . Edible oils or edible fats
33/04 . . Dairy products
33/06 . . . Determining fat content, e.g. by butyrometer
33/08 . . Eggs, e.g. by candling
33/085 . . . {by candling}
33/10 . . Starch-containing substances, e.g. dough
2033/105 . . . {Pasta}
33/12 . . Meat; fish
33/14 . . Beverages
33/143 . . . {containing sugar}
33/146 . . . {containing alcohol}
33/15 . Medicinal preparations {; Physical properties thereof, e.g. dissolubility (drug screening with animal cells G01N 33/5008)}
33/18 . Water
33/1806 . . {biological or chemical oxygen demand (BOD or COD)}
33/1813 . . {specific cations in water, e.g. heavy metals (electrochemical analysis G01N 27/26; detection of ions by colorimetry G01N 31/22)}
33/182 . . {specific anions in water (electrochemical analysis G01N 27/26; detection of ions by colorimetry G01N 31/22)}
33/1826 . . {organic contamination in water}
33/1833 . . . {Oil in water (water in oil G01N 33/2847)}

2033/184 . . . {herbicides, pesticides, fungicides, insecticides, or the like}
33/1846 . . . {Total carbon analysis}
33/1853 . . {hardness of water}
33/186 . . {using one or more living organisms, e.g. a fish}
33/1866 . . . {using microorganisms (G01N 33/1806 takes precedence)}
2033/1873 . . {ice or snow}
33/188 . . {Determining the state of nitrification (biological treatment of water by aerobic or anaerobic processes for denitrification of water C02F 3/305)}
33/1886 . . {using probes, e.g. submersible probes, buoys}
33/1893 . . {using flow cells}
33/20 . Metals

WARNING

Group G01N 33/20 is impacted by reclassification into groups G01N 33/202, G01N 33/2022, G01N 33/2028, G01N 33/204, G01N 33/2045, G01N 33/207, and G01N 33/208.

All groups listed in this Warning should be considered in order to perform a complete search.

33/202 . . Constituents thereof

WARNING

Group G01N 33/202 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/202 should be considered in order to perform a complete search.

33/2022 . . . Non-metallic constituents

WARNING

Group G01N 33/2022 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/2022 should be considered in order to perform a complete search.

33/2025 . . . . Gaseous constituents
33/2028 . . . Metallic constituents

WARNING

Group G01N 33/2028 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/2028 should be considered in order to perform a complete search.

33/204 . . Structure thereof, e.g. crystal structure

WARNING

Group G01N 33/204 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/204 should be considered in order to perform a complete search.

33/2045 . . . Defects

WARNING

Group G01N 33/2045 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/2045 should be considered in order to perform a complete search.

33/205 . . in liquid state, e.g. molten metals
33/207 . . Welded or soldered joints; Solderability

WARNING

Group G01N 33/207 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/207 should be considered in order to perform a complete search.

33/208 . . Coatings, e.g. platings

WARNING

Group G01N 33/208 is incomplete pending reclassification of documents from group G01N 33/20.

Groups G01N 33/20 and G01N 33/208 should be considered in order to perform a complete search.

33/22 . Fuels, explosives {(liquid hydrocarbons G01N 33/28)}
33/222 . . {Solid fuels, e.g. coal}
33/225 . . {Gaseous fuels, e.g. natural gas}
33/227 . . {Explosives, e.g. combustive properties thereof (detecting explosives in air G01N 33/0057)}
33/24 . Earth materials (G01N 33/42 takes precedence)
33/241 . . {for hydrocarbon content (drilling mud G01N 33/2823; drilling per se E21B; prospecting G01V)}
2033/243 . . {for determining biological parameters concerning composting, biodegradability or bioavailability}
2033/245 . . {for agricultural purposes}
33/246 . . {for water content (for control of watering A01G 25/167)}
2033/248 . . {related to manure as a biological product, i.e. excluding artificial fertilizers}
33/26 . Oils; viscous liquids; paints; inks (G01N 33/22 takes precedence)
33/28 . . Oils {, i.e. hydrocarbon liquids} ({gaseous fuels G01N 33/225;} edible oils or edible fats G01N 33/03)

33/2805 . . . {investigating the resistance to heat or oxidation (to the weather, to corrosion, or to light G01N 17/00)}
33/2811 . . . {by measuring cloud point or pour point of oils}
33/2817 . . . {using a test engine (testing of engines G01M 15/00)}
33/2823 . . . {raw oil, drilling fluid or polyphasic mixtures (hydrocarbon content of earth materials G01N 33/241; prospecting G01V; drilling per se E21B)}
33/2829 . . . {mixtures of fuels, e.g. determining the RON-number}
33/2835 . . . {specific substances contained in the oil or fuel}
33/2841 . . . . {gas in oil, e.g. hydrogen in insulating oil}
33/2847 . . . . {Water in oil (basic sediment and water G01N 33/2823; oil in water G01N 33/1833)}
33/2852 . . . . {alcohol/fuel mixtures}
33/2858 . . . . {metal particles}
33/2864 . . . . {lead content}
33/287 . . . . {Sulfur content}
33/2876 . . . . {Total acid number}
33/2882 . . . . {Markers (marking of fuels C10L 1/003)}
33/2888 . . . {Lubricating oil characteristics, e.g. deterioration (lubricating properties G01N 33/30)}
33/2894 . . . {for metal working or machining}
33/30 . . . for lubricating properties
33/32 . . Paints; inks {(investigating resistance to the weather, to corrosion, to light G01N 17/00)}
33/34 . Paper
33/343 . . {paper pulp}
33/346 . . {paper sheets}
33/36 . Textiles
33/362 . . {material before processing, e.g. bulk cotton or wool}
33/365 . . {filiform textiles, e.g. yarns (for measuring diameter G01B)}
33/367 . . {Fabric or woven textiles (optical analysis of moving sheets G01N 21/86)}
33/38 . Concrete; ceramics; glass; bricks
33/381 . . {precious stones; pearls}
33/383 . . {Concrete, cement}
33/385 . . {Crystals}
33/386 . . {Glass}
33/388 . . {Ceramics}
33/40 . Grinding-materials
33/42 . Road-making materials (G01N 33/38 takes precedence)
33/44 . Resins; rubber; leather
33/442 . . {Resins, plastics}
33/445 . . {Rubber}
33/447 . . {Leather}
33/46 . Wood
33/48 . Biological material, e.g. blood, urine (G01N 33/02, G01N 33/26, G01N 33/44, G01N 33/46 take precedence); Haemocytometers (counting blood corpuscules distributed over a surface by scanning the surface G06M 11/02)
33/483 . . Physical analysis of biological material
33/4833 . . . {of solid biological material, e.g. tissue samples, cell cultures (tissue in vivo A61B 5/00; cell suspensions G01N 33/48735)}
33/4836 . . . . {using multielectrode arrays}
33/487 . . . of liquid biological material
33/48707 . . . . {by electrical means (G01N 33/49, G01N 33/493 take precedence)}
33/48714 . . . . . {for determining substances foreign to the organism, e.g. drugs or heavy metals (drugs by chemical analysis G01N 33/94)}
33/48721 . . . . . {Investigating individual macromolecules, e.g. by translocation through nanopores (Coulter counters in general G01N 15/12; fabrication methods for nanoscale apertures B81B 1/00; sequencing of nucleic acids C12Q 1/68)}
33/48728 . . . . . {Investigating individual cells, e.g. by patch clamp, voltage clamp (investigating individual particles in general G01N 15/10)}
33/48735 . . . . . {Investigating suspensions of cells, e.g. measuring microbe concentration (by chemical means C12Q 1/04; colony counters C12M 1/34; concentration of particle suspensions in general G01N 15/06)}
33/48742 . . . . {Determining urea by measuring the volume of a gas (in general G01N 7/14 - G01N 7/18)}
33/4875 . . . . {Details of handling test elements, e.g. dispensing or storage, not specific to a particular test method (test-elements per se B01L, automatic analysers G01N 35/00, in-vivo analysis on the human body for medical diagnosis A61B)}
33/48757 . . . . . {Test elements dispensed from a stack}
33/48764 . . . . . {Test tape taken off a spool}
33/48771 . . . . . {Coding of information, e.g. calibration data, lot number}
33/48778 . . . . . {Containers specially adapted therefor, e.g. for dry storage}
33/48785 . . . . {Electrical and electronic details of measuring devices for physical analysis of liquid biological material not specific to a particular test method, e.g. user interface or power supply}
33/48792 . . . . . {Data management, e.g. communication with processing unit (for in vivo diagnostics A61B 5/0002; transmission systems for measured values G08C)}
33/49 . . . . Blood {(chemical methods for determining blood cell populations G01N 33/5094; chemical analysis of blood groups or blood types G01N 33/80)}
33/4905 . . . . . {Determining clotting time of blood (by chemical methods G01N 33/86, C12Q 1/54)}
33/491 . . . . . {by separating the blood components (G01N 15/05 takes precedence)}
33/4915 . . . . . {using flow cells (flow cytometry G01N 15/14)}
33/492 . . . . . {Determining multiple analytes}
33/4925 . . . . . {measuring blood gas content, e.g. O_2, CO_2 , HCO_3}
33/493 . . . . urine

33/497 . . . of gaseous biological material, e.g. breath
33/4972 . . . . {Determining alcohol content (for vehicle safety devices B60K 28/06)}
2033/4975 . . . . {other than oxygen, carbon dioxide or alcohol, e.g. organic vapours}
2033/4977 . . . . {metabolic gass from microbes, cell cultures, plant tissues and the like}
33/50 . . Chemical analysis of biological material, e.g. blood, urine; Testing involving biospecific ligand binding methods; Immunological testing (measuring or testing processes involving enzymes or microorganisms, compositions or test papers therefor; processes for forming such compositions, condition responsive control in microbiological or enzymological processes C12Q)

NOTES

1. In this group, the following expression is used with the meaning indicated: "involving", when used in relation to a material, includes the testing for the material as well as employing the material as a determinant or reactant in a test for a different material.
2. In groups G01N 33/52 – G01N 33/98, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
3. Documents relating to new peptides or new DNA or its corresponding mRNA, encoding for the peptides, and their use in measuring or testing processes are classified in subclass C07K or in group C12N 9/00 according to the peptides, with the appropriate indexing codes relating to their use in diagnostics. However, if the investigating or analysing aspects are of interest, the documents are classified in this group.

33/5002 . . . {Partitioning blood components}
33/5005 . . . {involving human or animal cells (immunoassay G01N 33/56966; immunoassays of protozoa G01N 33/56905; protozoa in screening assays C12Q 1/025)}
33/5008 . . . . {for testing or evaluating the effect of chemical or biological compounds, e.g. drugs, cosmetics}
33/5011 . . . . . {for testing antineoplastic activity}
33/5014 . . . . . {for testing toxicity}
33/5017 . . . . . {for testing neoplastic activity}
33/502 . . . . . {for testing non-proliferative effects}
33/5023 . . . . . {on expression patterns}
33/5026 . . . . . {on cell morphology}
33/5029 . . . . . {on cell motility}
33/5032 . . . . . {on intercellular interactions}
33/5035 . . . . . {on sub-cellular localization}
33/5038 . . . . . {involving detection of metabolites per se}
33/5041 . . . . . {involving analysis of members of signalling pathways}
33/5044 . . . . . {involving specific cell types}
33/5047 . . . . . {Cells of the immune system}
33/505 . . . . . {involving T-cells}
33/5052 . . . . . {involving B-cells}
33/5055 . . . . . {involving macrophages}
33/5058 . . . . . {Neurological cells}
33/5061 . . . . . {Muscle cells}
33/5064 . . . . . {Endothelial cells}
33/5067 . . . . . {Liver cells}
33/507 . . . . . {Pancreatic cells}
33/5073 . . . . . {Stem cells}
33/5076 . . . . . {involving cell organelles, e.g. Golgi complex, endoplasmic reticulum}
33/5079 . . . . . {Mitochondria}
33/5082 . . . . . {Supracellular entities, e.g. tissue, organisms}
33/5085 . . . . . {of invertebrates}
33/5088 . . . . . {of vertebrates}
33/5091 . . . . {for testing the pathological state of an organism}
33/5094 . . . . {for blood cell populations (red blood cells G01N 33/80)}
33/5097 . . . {involving plant cells (immunoassays of plant cells G01N 33/56961; unicellular algae, photoplankton and photosynthetic bacteria in screening assays C12Q 1/025)}
33/52 . . . Use of compounds or compositions for colorimetric, spectrophotometric or fluorometric investigation, e.g. use of reagent paper {and including single- and multilayer analytical elements (immunological elements G01N 33/54386; involving labelled immunochemicals G01N 33/58; for haemoglobin or occult blood G01N 33/72)}
33/521 . . . . {Single-layer analytical elements}
33/523 . . . . . {the element being adapted for a specific analyte}
33/525 . . . . {Multi-layer analytical elements}
33/526 . . . . . {the element being adapted for a specific analyte}
33/528 . . . . {Atypical element structures, e.g. gloves, rods, tampons, toilet paper}
33/53 . . . Immunoassay; Biospecific binding assay; Materials therefor
33/5302 . . . . {Apparatus specially adapted for immunological test procedures}
33/5304 . . . . . {Reaction vessels, e.g. agglutination plates (for solid-phase systems G01N 33/543)}
33/5306 . . . . {Improving reaction conditions, e.g. reduction of non-specific binding, promotion of specific binding}
33/5308 . . . . {for analytes not provided for elsewhere, e.g. nucleic acids, uric acid, worms, mites}
33/531 . . . . Production of immunochemical test materials
33/532 . . . . . Production of labelled immunochemicals
33/533 . . . . . with fluorescent label
33/534 . . . . . with radioactive label
33/535 . . . . . with enzyme label {or co-enzymes, co-factors, enzyme inhibitors or enzyme substrates}
33/536 . . . . with immune complex formed in liquid phase
33/537 . . . . . with separation of immune complex from unbound antigen or antibody
33/5375 . . . . . {by changing the physical or chemical properties of the medium or immunochemicals, e.g. temperature, density, pH, partitioning}

33/538 . . . . . by sorbent column, particles or resin strip {, i.e. sorbent materials}
33/539 . . . . . involving precipitating reagent {, e.g. ammonium sulfate}
33/541 . . . . . Double or second antibody {, i.e. precipitating antibody}
33/542 . . . . with steric inhibition or signal modification, e.g. fluorescent quenching
33/543 . . . with an insoluble carrier for immobilising immunochemicals
33/54306 . . . . {Solid-phase reaction mechanisms}
33/54313 . . . . {the carrier being characterised by its particulate form}
33/5432 . . . . . {Liposomes or microcapsules}
33/54326 . . . . . {Magnetic particles}
33/54333 . . . . . {Modification of conditions of immunological binding reaction, e.g. use of more than one type of particle, use of chemical agents to improve binding, choice of incubation time or application of magnetic field during binding reaction}
33/5434 . . . . . {using magnetic particle immunoreagent carriers which constitute new materials per se}
33/54346 . . . . . {Nanoparticles}
33/54353 . . . . {with ligand attached to the carrier via a chemical coupling agent (coatings G01N 33/54393)}
33/5436 . . . . {with ligand physically entrapped within the solid phase (liposomes G01N 33/5432; immunological test elements G01N 33/54386)}
33/54366 . . . . {Apparatus specially adapted for solid-phase testing}
33/54373 . . . . . {involving physiochemical end-point determination, e.g. wave-guides, FETS, gratings}
33/5438 . . . . . {Electrodes}
33/54386 . . . . . {Analytical elements}
33/54393 . . . . {Improving reaction conditions or stability, e.g. by coating or irradiation of surface, by reduction of non-specific binding, by promotion of specific binding}
33/544 . . . . the carrier being organic
33/545 . . . . . Synthetic resin
33/546 . . . . . as water suspendable particles
33/547 . . . . . with antigen or antibody attached to the carrier via a bridging agent
33/548 . . . . . Carbohydrates, e.g. dextran
33/549 . . . . . with antigen or antibody entrapped within the carrier
33/551 . . . . the carrier being inorganic
33/552 . . . . . Glass or silica
33/553 . . . . . Metal or metal coated
33/554 . . . . the carrier being a biological cell or cell fragment, e.g. bacteria, yeast cells
33/555 . . . . . Red blood cell
33/556 . . . . . Fixed or stabilised red blood cell
33/557 . . . using kinetic measurement, i.e. time rate of progress of an antigen-antibody interaction
33/558 . . . using diffusion or migration of antigen or antibody
33/559 . . . . through a gel, e.g. Ouchterlony technique
33/561 . . . . Immunoelectrophoresis
33/563 . . . involving antibody fragments
33/564 . . . for pre-existing immune complex or autoimmune disease {, i.e. systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis, rheumatoid factors or complement components C1-C9}
33/566 . . . using specific carrier or receptor proteins as ligand binding reagents {where possible specific carrier or receptor proteins are classified with their target compounds}
33/567 . . . . utilising isolate of tissue or organ as binding agent
33/569 . . . for microorganisms, e.g. protozoa, bacteria, viruses
33/56905 . . . . {Protozoa}
33/56911 . . . . {Bacteria}
33/56916 . . . . . {Enterobacteria, e.g. shigella, salmonella, klebsiella, serratia}
33/56922 . . . . . {Campylobacter}
33/56927 . . . . . {Chlamydia}
33/56933 . . . . . {Mycoplasma}
33/56938 . . . . . {Staphylococcus}
33/56944 . . . . . {Streptococcus}
33/5695 . . . . . {Mycobacteria}
33/56955 . . . . . {involved in periodontal diseases}
33/56961 . . . . {Plant cells or fungi}
33/56966 . . . . {Animal cells}
33/56972 . . . . . {White blood cells}
33/56977 . . . . . {HLA or MHC typing}
33/56983 . . . . {Viruses}
33/56988 . . . . . {AIDS or HTLV}
33/56994 . . . . . {Herpetoviridae, e.g. cytomegalovirus, Epstein-Barr virus}
33/571 . . . . for venereal disease, e.g. syphilis, gonorrhoea {(herpes G01N 33/56994; chlamydia G01N 33/56927)}
33/573 . . . for enzymes or isoenzymes
33/5735 . . . . {co-enzymes or co-factors, e.g. NAD, ATP}
33/574 . . . for cancer

NOTE

In this group:
- relevant features relating to a specifically defined cancer are only classified in groups G01N 33/57407 - G01N 33/57449
- relevant features describing cancer markers related to multiple forms of cancer are classified in groups G01N 33/57484 - G01N 33/57496

33/57407 . . . . {Specifically defined cancers}
33/57411 . . . . . {of cervix}
33/57415 . . . . . {of breast}
33/57419 . . . . . {of colon}
33/57423 . . . . . {of lung}
33/57426 . . . . . {leukemia}
33/5743 . . . . . {of skin, e.g. melanoma}
33/57434 . . . . . {of prostate}
33/57438 . . . . . {of liver, pancreas or kidney}
33/57442 . . . . . {of the uterus and endometrial}
33/57446 . . . . . {of stomach or intestine}

33/57449 . . . . . {of ovaries}
33/57469 . . . . . {involving tumor associated glycolinkage, i.e. TAG}
33/57473 . . . . . {involving carcinoembryonic antigen, i.e. CEA}
33/57476 . . . . . {involving oncofetal proteins}
33/5748 . . . . . {involving oncogenic proteins}
33/57484 . . . . . {involving compounds serving as markers for tumor, cancer, neoplasia, e.g. cellular determinants, receptors, heat shock/stress proteins, A-protein, oligosaccharides, metabolites}
33/57488 . . . . . {involving compounds identifable in body fluids}
33/57492 . . . . . {involving compounds localized on the membrane of tumor or cancer cells}
33/57496 . . . . . {involving intracellular compounds}
33/576 . . . . for hepatitis
33/5761 . . . . . {Hepatitis B}
33/5762 . . . . . {Hepatitis B core antigen}
33/5764 . . . . . {Hepatitis B surface antigen}
33/5765 . . . . . {Hepatitis delta antigen}
33/5767 . . . . . {non-A, non-B hepatitis}
33/5768 . . . . . {Hepatitis A}
33/577 . . . . involving monoclonal antibodies {binding reaction mechanisms characterised by the use of monoclonal antibodies; monoclonal antibodies per se are classified with their corresponding antigens; (G01N 33/53 - G01N 33/576 take precedence)}
33/579 . . . involving limulus lysate

NOTE

Groups G01N 33/53 - G01N 33/576 take precedence over groups G01N 33/58 - G01N 33/98

33/58 . . . involving labelled substances (G01N 33/53 takes precedence; for testing in vivo A61K 49/00)
33/581 . . . . {with enzyme label (including co-enzymes, co-factors, enzyme inhibitors or substrates)}
33/582 . . . . {with fluorescent label}
33/583 . . . . {with non-fluorescent dye label}
33/585 . . . . {with a particulate label, e.g. coloured latex}
33/586 . . . . . {Liposomes, microcapsules or cells}
33/587 . . . . . {Nanoparticles}
33/588 . . . . {with semiconductor nanocrystal label, e.g. quantum dots}
33/60 . . . . involving radioactive labelled substances (tracers G21H 5/02)
33/62 . . . involving urea
33/64 . . . involving ketones
33/66 . . . involving blood sugars, e.g. galactose
33/68 . . . involving proteins, peptides or amino acids {(involving lipoproteins G01N 33/92)}
33/6803 . . . . {General methods of protein analysis not limited to specific proteins or families of proteins}
33/6806 . . . . . {Determination of free amino acids}
33/6809 . . . . . {involving fluorescent derivatizing reagents reacting non-specifically with all amino acids}
33/6812 . . . . . {Assays for specific amino acids}
33/6815 . . . . . {containing sulfur, e.g. cysteine, cystine, methionine, homocysteine}
33/6818 . . . . . {Sequencing of polypeptides}
33/6821 . . . . . {involving C-terminal degradation}
33/6824 . . . . . {involving N-terminal degradation, e.g. Edman degradation}
33/6827 . . . . . {Total protein determination, e.g. albumin in urine}
33/683 . . . . . {involving metal ions}
33/6833 . . . . . {Copper, e.g. Folin-, Lowry-, biuret methods}
33/6836 . . . . . {Silver staining}
33/6839 . . . . . {involving dyes, e.g. Coomassie blue, bromcresol green}
33/6842 . . . . . {Proteomic analysis of subsets of protein mixtures with reduced complexity, e.g. membrane proteins, phosphoproteins, organelle proteins}
33/6845 . . . . . {Methods of identifying protein-protein interactions in protein mixtures}
33/6848 . . . . . {Methods of protein analysis involving mass spectrometry}
33/6851 . . . . . {Methods of protein analysis involving laser desorption ionisation mass spectrometry}
33/6854 . . . . {Immunoglobulins}
33/6857 . . . . . {Antibody fragments}
33/686 . . . . . {Anti-idiotype}
33/6863 . . . . {Cytokines, i.e. immune system proteins modifying a biological response such as cell growth proliferation or differentiation, e.g. TNF, CNF, GM-CSF, lymphotoxin, MIF or their receptors}
33/6866 . . . . . {Interferon}
33/6869 . . . . . {Interleukin}
33/6872 . . . . {Intracellular protein regulatory factors and their receptors, e.g. including ion channels}
33/6875 . . . . {Nucleoproteins}
33/6878 . . . . {in eptitope analysis}
33/6881 . . . . {from skin}
33/6884 . . . . {from lung}
33/6887 . . . . {from muscle, cartilage or connective tissue}
33/689 . . . . {related to pregnancy or the gonads}
33/6893 . . . . {related to diseases not provided for elsewhere}
33/6896 . . . . . {Neurological disorders, e.g. Alzheimer's disease}
33/70 . . . involving creatine or creatinine
33/72 . . . involving blood pigments, e.g. haemoglobin, bilirubin {or other porphyrins; involving occult blood}
33/721 . . . . {Haemoglobin}
33/723 . . . . . {Glycosylated haemoglobin}
33/725 . . . . . {using peroxidative activity}
33/726 . . . . . {Devices}
33/728 . . . . {Bilirubin; including biliverdin}
33/74 . . . involving hormones {or other non-cytokine intercellular protein regulatory factors such as growth factors, including receptors to hormones and growth factors}
33/743 . . . . {Steroid hormones}
33/746 . . . . {Erythropoetin}

33/76 . . . . Human chorionic gonadotropin {including luteinising hormone, follicle stimulating hormone, thyroid stimulating hormone or their receptors}
33/78 . . . . Thyroid gland hormones {, e.g. T3, T4, TBH, TBG or their receptors}
33/80 . . . involving blood groups or blood types {or red blood cells (white blood cells G01N 33/56972)}
33/82 . . . involving vitamins {or their receptors}
33/84 . . . involving inorganic compounds or pH
33/86 . . . involving blood coagulating time {or factors, or their receptors}
33/88 . . . involving prostaglandins {or their receptors}
33/90 . . . involving iron binding capacity of blood
33/92 . . . involving lipids, e.g. cholesterol {, lipoproteins, or their receptors (steroid hormones G01N 33/743)}
33/94 . . . involving narcotics {or drugs or pharmaceuticals, neurotransmitters or associated receptors}
33/9406 . . . . {Neurotransmitters}
33/9413 . . . . . {Dopamine}
33/942 . . . . . {Serotonin, i.e. 5-hydroxy-tryptamine}
33/9426 . . . . . {GABA, i.e. gamma-amino-butyrate}
33/9433 . . . . . {(Nor)adrenaline}
33/944 . . . . . {Acetylcholine}
33/9446 . . . . {Antibacterials}
33/9453 . . . . {Cardioregulators, e.g. antihypotensives, antiarrhythmics}
33/946 . . . . {CNS-stimulants, e.g. cocaine, amphetamines}
33/9466 . . . . {Antidepressants}
33/9473 . . . . {Anticonvulsants, e.g. phenobarbitol, phenytoin}
33/948 . . . . {Sedatives, e.g. cannabinoids, barbiturates (opiates G01N 33/9486)}
33/9486 . . . . {Analgesics, e.g. opiates, aspirine}
33/9493 . . . . {Immunosupressants}
33/96 . . . involving blood or serum control standard
33/98 . . . involving alcohol, e.g. ethanol in breath

NOTE

In groups G01N 35/00 - G01N 35/085, the indexing codes of G01N are added

35/00 Automatic analysis not limited to methods or materials provided for in any single one of groups G01N 1/00 - G01N 33/00; Handling materials therefor

35/00009 . {provided with a sample supporting tape, e.g. with absorbent zones}
2035/00019 . . {cassette structures}
35/00029 . {provided with flat sample substrates, e.g. slides (G01N 35/028 takes precedence)}
2035/00039 . . {Transport arrangements specific to flat sample substrates, e.g. pusher blade}
2035/00049 . . . {for loading/unloading a carousel}
2035/00059 . . . {vacuum chucks}
35/00069 . . {whereby the sample substrate is of the bio-disk type, i.e. having the format of an optical disk}
2035/00079 . . {Evaporation covers for slides}
2035/00089 . . {Magazines}
2035/00099 . . {Characterised by type of test elements}
2035/00108 . . . {Test strips, e.g. paper}
2035/00118 . . . . {for multiple tests}
2035/00128 . . . . {with pressing or squeezing devices}
2035/00138 . . . {Slides}
2035/00148 . . . {Test cards, e.g. Biomerieux or McDonnel multiwell test cards}
2035/00158 . . . {Elements containing microarrays, i.e. "biochip"}
2035/00168 . . {Manufacturing or preparing test elements}
2035/00178 . {Special arrangements of analysers}
2035/00188 . . {the analyte being in the solid state}
2035/00198 . . . {Dissolution analysers}
2035/00207 . . {Handling bulk quantities of analyte}
2035/00217 . . . {involving measurement of weight}
2035/00227 . . . {Monitoring a process (online)}
2035/00237 . . {Handling microquantities of analyte, e.g. microvalves, capillary networks}
2035/00247 . . . {Microvalves}
2035/00257 . . . . {Capillary stop flow circuits}
2035/00267 . . . . {Meltable plugs}
2035/00277 . . {Special precautions to avoid contamination (e.g. enclosures, glove- boxes, sealed sample carriers, disposal of contaminated material)}
2035/00287 . . . {movable lid/cover for sample or reaction tubes}
2035/00297 . . . {Antistatic arrangements}
2035/00306 . . {Housings, cabinets, control panels (details)}
2035/00316 . . . {Detecting door closure}
2035/00326 . . {Analysers with modular structure}
2035/00336 . . . {Analysers adapted for operation in microgravity, i.e. spaceflight}
2035/00346 . {Heating or cooling arrangements}
2035/00356 . . {Holding samples at elevated temperature (incubation)}
2035/00366 . . . {Several different temperatures used}
2035/00376 . . . {Conductive heating, e.g. heated plates}
2035/00386 . . . {using fluid heat transfer medium}
2035/00396 . . . . {where the fluid is a liquid}
2035/00405 . . . {Microwaves}
2035/00415 . . . {Other radiation}
2035/00425 . . {Heating or cooling means associated with pipettes or the like, e.g. for supplying sample/ reagent at given temperature}
2035/00435 . . {Refrigerated reagent storage}
2035/00445 . . {Other cooling arrangements}
2035/00455 . . {Controlling humidity in analyser}
2035/00465 . {Separating and mixing arrangements}
2035/00475 . . {Filters}
2035/00485 . . . {combined with sample carriers}
2035/00495 . . {Centrifuges}
2035/00504 . . . {combined with carousels}
2035/00514 . . {Stationary mixing elements}
2035/00524 . . {Mixing by agitating sample carrier}
2035/00534 . . {Mixing by a special element, e.g. stirrer}
2035/00544 . . . {using fluid flow}
2035/00554 . . . {using ultrasound}
2035/00564 . . {Handling or washing solid phase elements, e.g. beads}
2035/00574 . . . {Means for distributing beads}
35/00584 . {Control arrangements for automatic analysers}
35/00594 . . {Quality control, including calibration or testing of components of the analyser}

35/00603 . . . {Reinspection of samples}
35/00613 . . . {Quality control}
35/00623 . . . . {of instruments}
2035/00633 . . . . . {logging process history of individual samples}
2035/00643 . . . . . {detecting malfunctions in conveying systems}
2035/00653 . . . . . {statistical methods comparing labs or apparatuses}
35/00663 . . . . {of consumables}
2035/00673 . . . . . {of reagents}
2035/00683 . . . . . {of detectors}
35/00693 . . . {Calibration}
2035/00702 . . . . {Curve-fitting; Parameter matching; Calibration constants}
35/00712 . . . {Automatic status testing, e.g. at start-up or periodic}
35/00722 . . {Communications; Identification}
35/00732 . . . {Identification of carriers, materials or components in automatic analysers}
2035/00742 . . . . {Type of codes}
2035/00752 . . . . . {bar codes}
2035/00762 . . . . . {magnetic code}
2035/00772 . . . . . {mechanical or optical code other than bar code}
2035/00782 . . . . . {reprogrammmable code}
2035/00792 . . . . {Type of components bearing the codes, other than sample carriers}
2035/00801 . . . . . {Holders for sample carriers, e.g. trays, caroussel, racks}
2035/00811 . . . . . {consumable or exchangeable components other than sample carriers, e.g. detectors, flow cells}
2035/00821 . . . . {nature of coded information}
2035/00831 . . . . . {identification of the sample, e.g. patient identity, place of sampling}
2035/00841 . . . . . {results of the analyses}
2035/00851 . . . . . {process control parameters}
2035/00861 . . . . {printing and sticking of identifiers}
35/00871 . . . {Communications between instruments or with remote terminals}
2035/00881 . . . . {network configurations}
2035/00891 . . . {Displaying information to the operator}
2035/009 . . . . {alarms, e.g. audible}
2035/0091 . . . . {GUI [graphical user interfaces]}
35/0092 . . {Scheduling}
2035/0093 . . . {random access not determined by physical position}
2035/0094 . . . {optimisation; experiment design}
35/0095 . . . {introducing urgent samples with priority, e.g. Short Turn Around Time Samples [STATS]}
2035/0096 . . . {post analysis management of samples, e.g. marking, removing, storing}
2035/0097 . . {monitoring reactions as a function of time}
35/0098 . {involving analyte bound to insoluble magnetic carrier, e.g. using magnetic separation (magnetic particles used in immunoassays G01N 33/54326; magnetic separation in general B03C)}
35/0099 . {comprising robots or similar manipulators (robots per se B25J)}
35/02 . using a plurality of sample containers moved by a conveyor system past one or more treatment or analysis stations {(G01N 35/0098 and G01N 35/0099 take precedence)}
35/021 . . {having a flexible chain, e.g. "cartridge belt", conveyor for reaction cells or cuvettes}
2035/023 . . . {forming cuvettes in situ, e.g. from plastic strip}
35/025 . . {having a carousel or turntable for reaction cells or cuvettes}
35/026 . . {having blocks or racks of reaction cells or cuvettes}
35/028 . . {having reaction cells in the form of microtitration plates}
35/04 . . Details of the conveyor system {(G01N 35/021 - G01N 35/028 take precedence)}
2035/0401 . . . {Sample carriers, cuvettes or reaction vessels}
2035/0403 . . . . {Sample carriers with closing or sealing means}
2035/0405 . . . . . {manipulating closing or opening means, e.g. stoppers, screw caps, lids or covers}
2035/0406 . . . . {Individual bottles or tubes}
2035/0408 . . . . . {connected in a flexible chain}
2035/041 . . . . . {lifting items out of a rack for access}
2035/0412 . . . . {Block or rack elements with a single row of samples}
2035/0413 . . . . . {moving in one dimension}
2035/0415 . . . . . {moving in two dimensions in a horizontal plane}
2035/0417 . . . . . {forming an endless chain in a vertical plane}
2035/0418 . . . . {Plate elements with several rows of samples}
2035/042 . . . . . {moved independently, e.g. by fork manipulator}
2035/0422 . . . . . {carried on a linear conveyor}
2035/0424 . . . . . {Two or more linear conveyors}
2035/0425 . . . . . {Stacks, magazines or elevators for plates}
2035/0427 . . . . {nestable or stockable}
2035/0429 . . . . {Sample carriers adapted for special purposes}
2035/0431 . . . . . {characterised by material of construction}
2035/0432 . . . . . {integrated with measuring devices}
2035/0434 . . . . . {in the form of a syringe or pipette tip}
2035/0436 . . . . . {with pre-packaged reagents, i.e. test-packs}
2035/0437 . . . . {Cleaning cuvettes or reaction vessels}
2035/0439 . . . {Rotary sample carriers, i.e. carousels}
2035/0441 . . . . {for samples}
2035/0443 . . . . {for reagents}
2035/0444 . . . . {for cuvettes or reaction vessels}
2035/0446 . . . . {Combinations of the above}
2035/0448 . . . . . {composed of interchangeable ring elements}
2035/0449 . . . . . {using centrifugal transport of liquid}
2035/0451 . . . . {composed of interchangeable sectors}
2035/0453 . . . . {Multiple carousels working in parallel}
2035/0455 . . . . . {Coaxial carousels}
2035/0456 . . . . {Spiral tracks}
2035/0458 . . . . {Multiple concentric rows of wells}
2035/046 . . . {General conveyor features}
2035/0462 . . . . {Buffers [FIFO] or stacks [LIFO] for holding carriers between operations}

2035/0463 . . . . . {in incubators}
2035/0465 . . . . {Loading or unloading the conveyor}
2035/0467 . . . . {Switching points ("aiguillages")}
2035/0468 . . . . . {converging, e.g. selecting carriers from multiple incoming streams}
2035/047 . . . . . {diverging, e.g. sending carriers to different analysers}
2035/0472 . . . . . {for selective recirculation of carriers}
2035/0474 . . . {Details of actuating means for conveyors or pipettes}
2035/0475 . . . . {electric, e.g. stepper motor, solenoid}
2035/0477 . . . . {Magnetic}
2035/0479 . . . . {hydraulic or pneumatic}
2035/0481 . . . . . {Pneumatic tube conveyors; Tube mails; "Rohrpost"}
2035/0482 . . . . {Transmission}
2035/0484 . . . . . {Belt or chain}
2035/0486 . . . . . {Gearing, cams}
2035/0487 . . . . . {Helix or lead screw}
2035/0489 . . . . {Self-propelled units}
2035/0491 . . . . {Position sensing, encoding; closed-loop control}
2035/0493 . . . . . {Locating samples; identifying different tube sizes}
2035/0494 . . . . . {Detecting or compensating piositioning errors}
2035/0496 . . . {Other details}
2035/0498 . . . . {Drawers used as storage or dispensing means for vessels or cuvettes}

35/08 . using a stream of discrete samples flowing along a tube system, e.g. flow injection analysis
35/085 . . {Flow Injection Analysis}
35/10 . Devices for transferring samples {or any liquids} to, in, or from, the analysis apparatus, e.g. suction devices, injection devices {(G01N 35/0099 takes precedence)}
35/1002 . . {Reagent dispensers}
35/1004 . . {Cleaning sample transfer devices}
2035/1006 . . . {Rinsing only the inside of the tip}
35/1009 . . {Characterised by arrangements for controlling the aspiration or dispense of liquids}
35/1011 . . . {Control of the position or alignment of the transfer device}
2035/1013 . . . . {Confirming presence of tip}
35/1016 . . . {Control of the volume dispensed or introduced}
2035/1018 . . . . {Detecting inhomogeneities, e.g. foam, bubbles, clots}
2035/102 . . . . {Preventing or detecting loss of fluid by dripping}
2035/1023 . . . . . {using a valve in the tip or nozzle}
2035/1025 . . . {Fluid level sensing}
2035/1027 . . {General features of the devices}
2035/103 . . . {using disposable tips}
2035/1032 . . . {Dilution or aliquotting}
2035/1034 . . . {Transferring microquantities of liquid}
2035/1037 . . . . {Using surface tension, e.g. pins or wires}
2035/1039 . . . . {Micropipettes, e.g. microcapillary tubes}
2035/1041 . . . . {Ink-jet like dispensers}
2035/1044 . . . . {Using pneumatic means}
2035/1046 . . . . {Levitated, suspended drops}
2035/1048 . . . {using the transfer device for another function}
2035/1051 . . . . {for transporting containers, e.g. retained by friction}
2035/1053 . . . . {for separating part of the liquid, e.g. filters, extraction phase}
2035/1055 . . . . {for immobilising reagents, e.g. dried reagents}
2035/1058 . . . . {for mixing}
2035/106 . . . . . {by sucking and blowing}
2035/1062 . . . . {for testing the liquid while it is in the transfer device}
35/1065 . . {Multiple transfer devices}
35/1067 . . . {for transfer to or from containers having different spacing}
2035/1069 . . . . {by adjusting the spacing between multiple probes of a single transferring head}
35/1072 . . . {with provision for selective pipetting of individual channels}
35/1074 . . . {arranged in a two-dimensional array}
2035/1076 . . . {plurality or independently movable heads}
35/1079 . . {with means for piercing stoppers or septums}
35/1081 . . {characterised by the means for relatively moving the transfer device and the containers in an horizontal plane (G01N 35/1011 takes precedence)}
35/1083 . . . {with one horizontal degree of freedom}
2035/1086 . . . . {Cylindrical, e.g. variable angle}
2035/1088 . . . . . {Coaxial with a carousel}
35/109 . . . {with two horizontal degrees of freedom}
2035/1093 . . . . {Cylindrical, e.g. variable radius and angle}
35/1095 . . {for supplying the samples to flow-through analysers (for a specific analyser see relevant groups, e.g. under G01N 15/00, G01N 21/00, G01N 27/00, G01N 30/00, H01J 49/00)}
35/1097 . . . {characterised by the valves (valves in general F16K)}

37/00 Details not covered by any other group of this subclass

37/005 . {Measurement methods not based on established scientific theories}

2201/00 Features of devices classified in G01N 21/00

2201/02 . Mechanical
2201/021 . . Special mounting in general
2201/0212 . . . Liquid borne; swimming apparatus
2201/0214 . . . Airborne
2201/0216 . . . Vehicle borne
2201/0218 . . . Submersible, submarine
2201/022 . . Casings
2201/0221 . . . Portable; cableless; compact; hand-held
2201/0222 . . . Pocket size
2201/0224 . . . Pivoting casing
2201/0225 . . . Part of casing being slidable, telescopic
2201/0227 . . . Sealable enclosure
2201/0228 . . . Moulded parts
2201/023 . . Controlling conditions in casing
2201/0231 . . . Thermostating
2201/0233 . . . Gas purge
2201/0235 . . . . with gas filters in casing
2201/0236 . . . Explosion proof
2201/0238 . . . Moisture monitoring or controlling
2201/024 . . Modular construction
2201/0245 . . . with insertable-removable part

2201/025 . . Mechanical control of operations
2201/0253 . . . Switches mounted at the casing
2201/0256 . . . Sensor for insertion of sample, cuvette, test strip
2201/04 . Batch operation; multisample devices
2201/0407 . . with multiple optical units, e.g. one per sample
2201/0415 . . Carrusel, sequential
2201/0423 . . . with rotating optics
2201/043 . . . . optics constituted by optical fibre multiplex selector
2201/0438 . . Linear motion, sequential
2201/0446 . . Multicell plate, sequential
2201/0453 . . Multicell sequential and multitest, e.g. multiwavelength
2201/0461 . . Simultaneous, e.g. video imaging
2201/0469 . . One cell, sequential, e.g. successive samples
2201/0476 . . Keyboard controlled, e.g. for plural analysis at one sample, channel selection, coding
2201/0484 . . Computer controlled
2201/0492 . . Automatised microscope
2201/06 . Illumination; Optics
2201/061 . . Sources
2201/06106 . . . Plural sources used for calibration
2201/06113 . . . Coherent sources; lasers
2201/0612 . . . . Laser diodes
2201/06126 . . . Large diffuse sources
2201/06133 . . . . Light tables
2201/0614 . . . . Diffusing light tube with sample within
2201/06146 . . . Multisources for homogeneisation, as well sequential as simultaneous operation
2201/06153 . . . . the sources being LED's
2201/0616 . . . Ambient light is used
2201/06166 . . . Line selective sources
2201/06173 . . . . IR sources from heated molecular species
2201/0618 . . . . Halogene sources
2201/06186 . . . Resistance heated; wire sources; lamelle sources
2201/06193 . . . Secundary <u>in-situ</u> sources, e.g. fluorescent particles
2201/062 . . LED's
2201/0621 . . . Supply
2201/0622 . . . Use of a compensation LED
2201/0623 . . . Use of a reference LED
2201/0624 . . . Compensating variation in output of LED source
2201/0625 . . . Modulated LED
2201/0626 . . . Use of several LED's for spatial resolution
2201/0627 . . . Use of several LED's for spectral resolution
2201/0628 . . . Organic LED [OLED]
2201/063 . . Illuminating optical parts
2201/0631 . . . Homogeneising elements
2201/0632 . . . . homogeneising by integrating sphere
2201/0633 . . . Directed, collimated illumination
2201/0634 . . . Diffuse illumination
2201/0635 . . . Structured illumination, e.g. with grating
2201/0636 . . . Reflectors
2201/0637 . . . . Elliptic
2201/0638 . . . Refractive parts
2201/0639 . . . . Sphere lens
2201/064 . . Stray light conditioning
2201/0642 . . . Light traps; baffles
2201/0644 . . . . Simple baffled tube construction
2201/0646 . . . Light seals
2201/0648 . . . Shutters
2201/065 . . Integrating spheres
2201/0655 . . . Hemispheres
2201/066 . . Modifiable path; multiple paths in one sample
2201/0662 . . . Comparing measurements on two or more paths in one sample
2201/0664 . . . Using two ways, i.e. two devices in same path in one sample
2201/0666 . . . Selectable paths; insertable multiple sources
2201/0668 . . . Multiple paths; optimisable path length
2201/067 . . Electro-optic, magneto-optic, acousto-optic elements
2201/0675 . . . SLM
2201/068 . . Optics, miscellaneous
2201/0683 . . . Brewster plate; polarisation controlling elements
2201/0686 . . . Cold filter; IR filter
2201/069 . . Supply of sources
2201/0691 . . . Modulated (not pulsed supply)
2201/0692 . . . Regulated sources; stabilised supply
2201/0693 . . . Battery powered circuitry
2201/0694 . . . Microprocessor controlled supply
2201/0695 . . . Supply to maintain constant beam intensity
2201/0696 . . . Pulsed
2201/0697 . . . . Pulsed lasers
2201/0698 . . . . Using reference pulsed source
2201/0699 . . . . Randomly pulsed source
2201/08 . Optical fibres; light guides
2201/0806 . . Light rod
2201/0813 . . Arrangement of collimator tubes, glass or empty
2201/082 . . Fibres for a reference path
2201/0826 . . Fibre array at source, distributing
2201/0833 . . Fibre array at detector, resolving
2201/084 . . Fibres for remote transmission
2201/0846 . . Fibre interface with sample, e.g. for spatial resolution
2201/0853 . . Movable fibre optical member, e.g. for scanning or selecting
2201/086 . . Modular construction, e.g. disconnectable fibre parts
2201/0866 . . Use of GRIN elements
2201/0873 . . Using optically integrated constructions
2201/088 . . Using a sensor fibre
2201/0886 . . . and using OTDR
2201/0893 . . Using fibres for resolution in time
2201/10 . Scanning
2201/101 . . Scanning measuring head
2201/102 . . Video camera
2201/103 . . Scanning by mechanical motion of stage
2201/1035 . . . 3D motion
2201/104 . . Mechano-optical scan, i.e. object and beam moving
2201/1042 . . . X, Y scan, i.e. object moving in X, beam in Y
2201/1045 . . . Spiral scan
2201/1047 . . . with rotating optics and moving stage
2201/105 . . Purely optical scan
2201/1053 . . . System of scan mirrors for composite motion of beam
2201/1056 . . . Prism scan, diasporameter
2201/106 . . Acousto-optical scan
2201/107 . . CRT flying spot scan

2201/108 . . Miscellaneous
2201/1082 . . . Descanning
2201/1085 . . . Using optical fibre array and scanner
2201/1087 . . . Focussed scan beam, e.g. laser
2201/11 . . Monitoring and controlling the scan
2201/112 . . . Grating pulse time encoder
2201/115 . . . Optical equalisation of scan intensity
2201/117 . . . Indexed, memorised or programmed scan
2201/12 . Circuits of general importance; Signal processing
2201/121 . . Correction signals
2201/1211 . . . for temperature
2201/1212 . . . . and switch-off from upwarming
2201/1214 . . . for humidity
2201/1215 . . . for interfering gases
2201/1217 . . . for index of solution, carrying fluids
2201/1218 . . . for pressure variations
2201/122 . . Kinetic analysis; determining reaction rate
2201/1222 . . . Endpoint determination; reaction time determination
2201/1224 . . . Polymerisation
2201/1226 . . . Relaxation methods, e.g. temperature jump, field jump
2201/1228 . . . Reading time being controlled, e.g. by microprocessor
2201/123 . . Conversion circuit
2201/1232 . . . Log representation, e.g. for low transmittance
2201/1235 . . . Measuring or displaying selectably absorbance or density
2201/1237 . . . Measuring extrema
2201/124 . . Sensitivity
2201/1241 . . . Multirange
2201/1242 . . . Validating, e.g. range invalidation, suspending operation
2201/1244 . . . Ambient light detector, e.g. for invalidating
2201/1245 . . . Averaging several measurements
2201/1247 . . . Thresholding
2201/1248 . . . Validating from signal shape, slope, peak
2201/125 . . Digital circuitry
2201/126 . . Microprocessor processing
2201/1263 . . . Microprocessor is used as variant to separate part circuits
2201/1266 . . . Interface card
2201/127 . . Calibration; base line adjustment; drift compensation
2201/12707 . . . Pre-test of apparatus, e.g. dark test, sensor test
2201/12715 . . . Zero adjustment, i.e. to verify calibration
2201/12723 . . . Self check capacity; automatic, periodic step of checking
2201/1273 . . . Check triggered by sensing conditions, e.g. ambient changes
2201/12738 . . . Selectively initiating check
2201/12746 . . . Calibration values determination
2201/12753 . . . . and storage
2201/12761 . . . . Precalibration, e.g. for a given series of reagents
2201/12769 . . . . and adjusting controls, e.g. zero and 100 %
2201/12776 . . . . Automatic scaling up
2201/12784 . . . . Base line obtained from computation, histogram
2201/12792 . . . Compensating own radiation in apparatus
2201/128 . . Alternating sample and standard or reference part in one path
2201/1281 . . . Reflecting part, i.e. for autocollimation
2201/1283 . . . Opaque part
2201/1285 . . . Standard cuvette
2201/1286 . . . . More than one cuvette
2201/1288 . . . Calibration medium periodically inserted in one cell
2201/129 . . Using chemometrical methods
2201/1293 . . . resolving multicomponent spectra
2201/1296 . . . using neural networks
2201/13 . . Standards, constitution

2203/00 Investigating strength properties of solid materials by application of mechanical stress

2203/0001 . Type of application of the stress
2203/0003 . . Steady
2203/0005 . . Repeated or cyclic
2203/0007 . . . Low frequencies up to 100 Hz
2203/0008 . . . High frequencies from 10 000 Hz
2203/001 . . Impulsive
2203/0012 . . Constant speed test
2203/0014 . Type of force applied
2203/0016 . . Tensile or compressive
2203/0017 . . . Tensile
2203/0019 . . . Compressive
2203/0021 . . Torsional
2203/0023 . . Bending
2203/0025 . . Shearing
2203/0026 . . Combination of several types of applied forces
2203/0028 . . . Rotation and bending
2203/003 . Generation of the force
2203/0032 . . using mechanical means
2203/0033 . . . Weight
2203/0035 . . . Spring
2203/0037 . . . involving a rotating movement, e.g. gearing, cam, eccentric, or centrifuge effects
2203/0039 . . . Hammer or pendulum
2203/0041 . . . Human or animal power
2203/0042 . . Pneumatic or hydraulic means
2203/0044 . . . Pneumatic means
2203/0046 . . . . Vacuum
2203/0048 . . . Hydraulic means
2203/005 . . Electromagnetic means
2203/0051 . . . Piezoelectric means
2203/0053 . . Cutting or drilling tools
2203/0055 . . using mechanical waves, e.g. acoustic
2203/0057 . . using stresses due to heating, e.g. conductive heating, radiative heating
2203/0058 . Kind of property studied
2203/006 . . Crack, flaws, fracture or rupture
2203/0062 . . . Crack or flaws
2203/0064 . . . . Initiation of crack
2203/0066 . . . . Propagation of crack
2203/0067 . . . Fracture or rupture
2203/0069 . . Fatigue, creep, strain-stress relations or elastic constants
2203/0071 . . . Creep
2203/0073 . . . Fatigue
2203/0075 . . . Strain-stress relations or elastic constants
2203/0076 . . Hardness, compressibility or resistance to crushing
2203/0078 . . . using indentation
2203/008 . . . . Residual indentation measurement

2203/0082 . . . . Indentation characteristics measured during load
2203/0083 . . . Rebound strike or reflected energy
2203/0085 . . . Compressibility
2203/0087 . . . Resistance to crushing
2203/0089 . . Biorheological properties
2203/0091 . . Peeling or tearing
2203/0092 . . Visco-elasticity, solidification, curing, cross-linking degree, vulcanisation or strength properties of semi-solid materials
2203/0094 . . . Visco-elasticity
2203/0096 . . Fibre-matrix interaction in composites
2203/0098 . Tests specified by its name, e.g. Charpy, Brinnel, Mullen
2203/02 . Details not specific for a particular testing method
2203/0202 . . Control of the test
2203/0204 . . . Safety arrangements, e.g. remote control, emergency stop
2203/0206 . . . Means for supplying or positioning specimens or exchangeable parts of the machine such as indenters...
2203/0208 . . . Specific programs of loading, e.g. incremental loading or pre-loading
2203/021 . . . Treatment of the signal; Calibration
2203/0212 . . . Theories, calculations
2203/0214 . . . . Calculations a priori without experimental data
2203/0216 . . . . Finite elements
2203/0218 . . . . Calculations based on experimental data
2203/022 . . Environment of the test
2203/0222 . . . Temperature
2203/0224 . . . . Thermal cycling
2203/0226 . . . . High temperature; Heating means
2203/0228 . . . . Low temperature; Cooling means
2203/023 . . . Pressure
2203/0232 . . . . High pressure
2203/0234 . . . . Low pressure; Vacuum
2203/0236 . . . Other environments
2203/0238 . . . . Inert
2203/024 . . . . Corrosive
2203/0242 . . . . With circulation of a fluid
2203/0244 . . . Tests performed "in situ" or after "in situ" use
2203/0246 . . . . Special simulation of "in situ" conditions, scale models or dummies
2203/0248 . . . Tests "on-line" during fabrication
2203/025 . . Geometry of the test
2203/0252 . . . Monoaxial, i.e. the forces being applied along a single axis of the specimen
2203/0254 . . . Biaxial, the forces being applied along two normal axes of the specimen
2203/0256 . . . Triaxial, i.e. the forces being applied along three normal axes of the specimen
2203/0258 . . . Non axial, i.e. the forces not being applied along an axis of symmetry of the specimen
2203/026 . . Specifications of the specimen
2203/0262 . . . Shape of the specimen
2203/0264 . . . . Beam
2203/0266 . . . . Cylindrical specimens
2203/0268 . . . . Dumb-bell specimens
2203/027 . . . . Specimens with holes or notches
2203/0272 . . . . Cruciform specimens
2203/0274 . . . . Tubular or ring-shaped specimens
2203/0276 . . . . Spherical specimens
2203/0278 . . . . Thin specimens
2203/028 . . . . . One dimensional, e.g. filaments, wires, ropes or cables
2203/0282 . . . . . Two dimensional, e.g. tapes, webs, sheets, strips, disks or membranes
2203/0284 . . . Bulk material, e.g. powders
2203/0286 . . . Miniature specimen; Testing on microregions of a specimen
2203/0288 . . . Springs
2203/029 . . . . Leaf spring
2203/0292 . . . . Coil spring
2203/0294 . . . . Airs-spring, air bag spring or bellows
2203/0296 . . . Welds
2203/0298 . . . Manufacturing or preparing specimens
2203/04 . . Chucks, fixtures, jaws, holders or anvils
2203/0405 . . . Features allowing alignment between specimen and chucks
2203/0411 . . . using pneumatic or hydraulic pressure
2203/0417 . . . using vacuum
2203/0423 . . . using screws
2203/0429 . . . using adhesive bond; Gluing
2203/0435 . . . modifying the type of the force applied, e.g. the chuck transforms a compressive machine for applying a bending test
2203/0441 . . . with dampers or shock absorbing means
2203/0447 . . . Holders for quick insertion/removal of test pieces
2203/0452 . . . Cushioning layer between test piece and grip
2203/0458 . . . characterised by their material
2203/0464 . . . with provisions for testing more than one specimen at the time
2203/047 . . . . in series
2203/0476 . . . . in parallel
2203/0482 . . . comprising sensing means
2203/0488 . . . . Diamond anvil cells
2203/0494 . . . . Clamping ring, "whole periphery" clamping
2203/06 . . Indicating or recording means; Sensing means
2203/0605 . . . Mechanical indicating, recording or sensing means
2203/0611 . . . Hydraulic or pneumatic indicating, recording or sensing means
2203/0617 . . . Electrical or magnetic indicating, recording or sensing means
2203/0623 . . . . using piezo-electric gauges
2203/0629 . . . . using thin films, paintings
2203/0635 . . . . using magnetic properties
2203/0641 . . . using optical, X-ray, ultra-violet, infrared or similar detectors
2203/0647 . . . . Image analysis
2203/0652 . . . . using contrasting ink, painting, staining
2203/0658 . . . using acoustic or ultrasonic detectors
2203/0664 . . . using witness specimens
2203/067 . . . Parameter measured for estimating the property
2203/0676 . . . . Force, weight, load, energy, speed or acceleration
2203/0682 . . . . Spatial dimension, e.g. length, area, angle
2203/0688 . . . . Time or frequency
2203/0694 . . . . Temperature

2223/00 Investigating materials by wave or particle radiation

2223/01 . by radioactivity, nuclear decay

2223/03 . by transmission
2223/04 . . and measuring absorption
2223/041 . . . X-ray absorption fine structure [EXAFS]
2223/043 . . . gamma ray resonance absorption (Mossbauer effect)
2223/045 . combination of at least 2 measurements (transmission and scatter)
2223/05 . by diffraction, scatter or reflection
2223/051 . . correcting for scatter
2223/052 . . reflection
2223/053 . . back scatter
2223/054 . . small angle scatter
2223/055 . . scatter raster collimator
2223/056 . . diffraction
2223/0561 . . . diffraction cameras
2223/0563 . . . measure of energy-dispersion spectrum of diffracted radiation
2223/0565 . . . diffraction of electrons, e.g. LEED
2223/0566 . . . analysing diffraction pattern
2223/0568 . . . spectro-diffractometry
2223/063 . . inelastic scatter, e.g. Compton effect
2223/064 . . interference of radiation, e.g. Borrmann effect
2223/07 . secondary emission
2223/071 . . combination of measurements, at least 1 secondary emission
2223/072 . . combination of measurements, 2 kinds of secondary emission
2223/073 . . use of a laser
2223/074 . . activation analysis
2223/0745 . . . neutron-gamma activation analysis
2223/076 . . X-ray fluorescence
2223/0763 . . . Compton background correcting
2223/0766 . . . X-ray fluorescence with indicator, tags
2223/079 . . incident electron beam and measuring excited X-rays
2223/08 . . incident electron beam and measuring cathode luminescence (U.V.)
2223/081 . . incident ion beam, e.g. proton
2223/0813 . . . incident ion beam and measuring X-rays [PIXE]
2223/0816 . . . incident ion beam and measuring secondary ion beam [SIMS]
2223/084 . . photo-electric effect
2223/085 . . photo-electron spectrum [ESCA, XPS]
2223/086 . . Auger electrons
2223/09 . . exo-electron emission
2223/095 . . tribo-emission
2223/10 . Different kinds of radiation or particles
2223/1003 . . monochromatic
2223/1006 . . different radiations, e.g. X and alpha
2223/101 . . electromagnetic radiation
2223/1013 . . . gamma
2223/1016 . . . X-ray
2223/102 . . beta or electrons
2223/104 . . ions
2223/1045 . . . alpha
2223/105 . . molecular or atomic beams
2223/106 . . neutrons
2223/1063 . . . fast
2223/1066 . . . thermal
2223/107 . . protons
2223/108 . . positrons; electron-positron annihilation
2223/11 . . neutrino
2223/20 . Sources of radiation
2223/201 . . betatron
2223/202 . . isotopes
2223/203 . . synchrotron
2223/204 . . source created from radiated target
2223/205 . . natural source
2223/206 . . sources operating at different energy levels
2223/30 . Accessories, mechanical or electrical features
2223/301 . . portable apparatus
2223/302 . . comparative arrangements
2223/303 . . calibrating, standardising
2223/3032 . . . periodic calibration, e.g. with filter wheel
2223/3035 . . . phantom
2223/3037 . . . standards (constitution)
2223/304 . . electric circuits, signal processing
2223/305 . . computer simulations
2223/306 . . computer control
2223/307 . . cuvettes-sample holders
2223/3075 . . . correcting for the properties of the container, e.g. empty
2223/308 . . support of radiation source
2223/309 . . support of sample holder
2223/31 . . temperature control
2223/3103 . . . cooling, cryostats
2223/3106 . . . heating, furnaces
2223/311 . . high pressure testing, anvil cells
2223/312 . . powder preparation
2223/313 . . filters, rotating filter disc
2223/314 . . chopper
2223/315 . . monochromators
2223/316 . . collimators
2223/317 . . windows
2223/318 . . protective films
2223/319 . . using opaque penetrant medium
2223/32 . . adjustments of elements during operation
2223/321 . . manipulator for positioning a part
2223/322 . . immerged detecting head
2223/323 . . irradiation range monitor, e.g. light beam
2223/33 . . scanning, i.e. relative motion for measurement of successive object-parts
2223/3301 . . . beam is modified for scan, e.g. moving collimator
2223/3302 . . . object and detector fixed
2223/3303 . . . object fixed; source and detector move
2223/3304 . . . helicoidal scan
2223/3305 . . . detector fixed; source and body moving
2223/3306 . . . object rotates
2223/3307 . . . source and detector fixed; object moves
2223/3308 . . . object translates
2223/331 . . rocking curve analysis
2223/335 . . electronic scanning
2223/34 . . sensing means for gap between source and detector
2223/345 . . mathematical transformations on beams or signals, e.g. Fourier
2223/348 . . ellipsoidal collector
2223/351 . . prohibiting charge accumulation on sample substrate
2223/40 . Imaging
2223/401 . . image processing
2223/402 . . mapping distribution of elements

2223/403 . . mapping with false colours
2223/404 . . contrast medium
2223/405 . . mapping of a material property
2223/406 . . fluoroscopic image
2223/407 . . stimulable phosphor sheet
2223/408 . . display on monitor
2223/409 . . embedding or impregnating the object
2223/41 . . imaging specifically internal structure
2223/411 . . tv imaging from fluorescent screen
2223/412 . . use of image converter tube [PMT]
2223/413 . . sensor array [CCD]
2223/414 . . stereoscopic system
2223/415 . . radiographic film
2223/416 . . wrap around
2223/417 . . recording with co-ordinate markings
2223/418 . . electron microscope
2223/419 . . computed tomograph
2223/42 . . image digitised, -enhanced in an image processor
2223/421 . . digitised image, analysed in real time (recognition algorithms)
2223/422 . . windows within the image
2223/423 . . multispectral imaging-multiple energy imaging
2223/424 . . energy substraction image processing (dual energy processing)
2223/425 . . temporal (time difference) substraction processing
2223/426 . . image comparing, unknown with known substance
2223/427 . . stepped imaging (selected area of sample is changed)
2223/50 . Detectors
2223/501 . . array
2223/5015 . . . linear array
2223/502 . . ionisation chamber
2223/503 . . auxiliary reference detector
2223/504 . . pin-diode
2223/505 . . scintillation
2223/5055 . . . scintillation crystal coupled to PMT
2223/506 . . time-of-flight
2223/507 . . secondary-emission detector
2223/508 . . photo-acoustic
2223/509 . . infra-red
2223/60 . Specific applications or type of materials
2223/601 . . density profile
2223/602 . . crystal growth
2223/603 . . superlattices
2223/604 . . monocrystal
2223/605 . . phases
2223/606 . . texture
2223/607 . . strain
2223/608 . . superconductors
2223/61 . . thin films, coatings
2223/611 . . patterned objects; electronic devices
2223/6113 . . . printed circuit board [PCB]
2223/6116 . . . semiconductor wafer
2223/612 . . biological material
2223/6123 . . . bone mineral
2223/6126 . . . tissue
2223/613 . . moisture
2223/614 . . road surface
2223/615 . . composite materials, multilayer laminates
2223/616 . . earth materials
2223/617 . . ash in coal
2223/618 . . food
2223/619 . . wood
2223/62 . . powders
2223/621 . . tobacco
2223/622 . . paper
2223/623 . . plastics
2223/624 . . steel, castings
2223/625 . . nuclear fuels, laser imploded targets
2223/626 . . radioactive material
2223/6265 . . . sample with radioactive tracer, tag, label
2223/627 . . tyres
2223/628 . . tubes, pipes
2223/629 . . welds, bonds, sealing compounds
2223/63 . . turbine blades
2223/631 . . large structures, walls
2223/632 . . residual life, life expectancy
2223/633 . . thickness, density, surface weight (unit area)
2223/634 . . wear behaviour, roughness
2223/635 . . fluids, granulates
2223/636 . . fluid sample with radioactive sources
2223/637 . . liquid
2223/638 . . gas
2223/639 . . material in a container
2223/64 . . multiple-sample chamber, multiplicity of materials
2223/641 . . particle sizing
2223/642 . . moving sheet, web
2223/6425 . . . correcting for web flutter
2223/643 . . object on conveyor
2223/645 . . quality control
2223/646 . . flaws, defects
2223/6462 . . . microdefects
2223/6464 . . . radioactive substance into defect site
2223/6466 . . . flaws comparing to predetermined standards
2223/6468 . . . at different temperatures
2223/647 . . leak detection
2223/648 . . voids
2223/649 . . porosity
2223/65 . . cavitation pits
2223/651 . . dust
2223/652 . . impurities, foreign matter, trace amounts
2223/66 . . multiple steps inspection, e.g. coarse/fine

2291/00 Indexing codes associated with group G01N 29/00
2291/01 . Indexing codes associated with the measuring variable
2291/011 . . Velocity or travel time
2291/012 . . Phase angle
2291/014 . . Resonance or resonant frequency
2291/015 . . Attenuation, scattering
2291/017 . . Doppler techniques
2291/018 . . Impedance
2291/02 . Indexing codes associated with the analysed material
2291/021 . . Gases
2291/0212 . . . Binary gases
2291/0215 . . . Mixtures of three or more gases, e.g. air
2291/0217 . . . Smoke, combustion gases
2291/022 . . Liquids
2291/0222 . . . Binary liquids
2291/0224 . . . Mixtures of three or more liquids

2291/0226 . . . Oils, e.g. engine oils
2291/0228 . . . Aqueous liquids
2291/023 . . Solids
2291/0231 . . . Composite or layered materials
2291/0232 . . . Glass, ceramics, concrete or stone
2291/0234 . . . Metals, e.g. steel
2291/0235 . . . Plastics; polymers; soft materials, e.g. rubber
2291/0237 . . . Thin materials, e.g. paper, membranes, thin films
2291/0238 . . . Wood
2291/024 . . Mixtures
2291/02408 . . . Solids in gases, e.g. particle suspensions
2291/02416 . . . Solids in liquids
2291/02425 . . . Liquids in gases, e.g. sprays
2291/02433 . . . Gases in liquids, e.g. bubbles, foams
2291/02441 . . . Liquids in porous solids
2291/0245 . . . Gases in porous solids
2291/02458 . . . Solids in solids, e.g. granules
2291/02466 . . . Biological material, e.g. blood
2291/02475 . . . Tissue characterisation
2291/02483 . . . Other human or animal parts, e.g. bones
2291/02491 . . . Materials with nonlinear acoustic properties
2291/025 . . Change of phase or condition
2291/0251 . . . Solidification, icing, curing composites, polymerisation
2291/0252 . . . Melting, molten solids
2291/0253 . . . Condensation
2291/0254 . . . Evaporation
2291/0255 . . . (Bio)chemical reactions, e.g. on biosensors
2291/0256 . . . Adsorption, desorption, surface mass change, e.g. on biosensors
2291/0257 . . . . with a layer containing at least one organic compound
2291/0258 . . . Structural degradation, e.g. fatigue of composites, ageing of oils
2291/028 . . Material parameters
2291/02809 . . . Concentration of a compound, e.g. measured by a surface mass change
2291/02818 . . . Density, viscosity
2291/02827 . . . Elastic parameters, strength or force
2291/02836 . . . Flow rate, liquid level
2291/02845 . . . Humidity, wetness
2291/02854 . . . Length, thickness
2291/02863 . . . Electric or magnetic parameters
2291/02872 . . . Pressure
2291/02881 . . . Temperature
2291/0289 . . . Internal structure, e.g. defects, grain size, texture
2291/04 . Wave modes and trajectories
2291/042 . . Wave modes
2291/0421 . . . Longitudinal waves
2291/0422 . . . Shear waves, transverse waves, horizontally polarised waves
2291/0423 . . . Surface waves, e.g. Rayleigh waves, Love waves
2291/0425 . . . Parallel to the surface, e.g. creep waves
2291/0426 . . . Bulk waves, e.g. quartz crystal microbalance, torsional waves
2291/0427 . . . Flexural waves, plate waves, e.g. Lamb waves, tuning fork, cantilever
2291/0428 . . . Mode conversion
2291/043 . . Complex trajectories
2291/044 . . Internal reflections (echoes), e.g. on walls or defects
2291/045 . . External reflections, e.g. on reflectors
2291/048 . . Transmission, i.e. analysed material between transmitter and receiver
2291/051 . . Perpendicular incidence, perpendicular propagation
2291/052 . . Perpendicular incidence, angular propagation
2291/055 . . Angular incidence, perpendicular propagation
2291/056 . . Angular incidence, angular propagation
2291/057 . . Angular incidence, parallel to surface propagation
2291/10 . Number of transducers
2291/101 . . one transducer
2291/102 . . one emitter, one receiver
2291/103 . . one emitter, two or more receivers
2291/104 . . two or more emitters, one receiver
2291/105 . . two or more emitters, two or more receivers
2291/106 . . one or more transducer arrays
2291/26 . Scanned objects
2291/262 . . Linear objects
2291/2623 . . . Rails; Railroads
2291/2626 . . . Wires, bars, rods
2291/263 . . Surfaces
2291/2632 . . . flat
2291/2634 . . . cylindrical from outside
2291/2636 . . . cylindrical from inside
2291/2638 . . . Complex surfaces
2291/265 . . Spherical objects
2291/267 . . Welds
2291/2672 . . . Spot welding
2291/2675 . . . Seam, butt welding
2291/2677 . . . Lapp welding
2291/269 . . Various geometry objects
2291/2691 . . . Bolts, screws, heads
2291/2692 . . . Tyres
2291/2693 . . . Rotor or turbine parts
2291/2694 . . . Wings or other aircraft parts
2291/2695 . . . Bottles, containers
2291/2696 . . . Wheels, Gears, Bearings
2291/2697 . . . Wafer or (micro)electronic parts
2291/2698 . . . Other discrete objects, e.g. bricks

2333/00 Assays involving biological materials from specific organisms or of a specific nature

NOTE

In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned according to the chemical nature of the materials irrespective of the source organism.

2333/001 . by chemical synthesis
2333/003 . . of Peptide-nucleic acids (PNAs)
2333/005 . from viruses
2333/01 . . DNA viruses
2333/015 . . . Parvoviridae, e.g. feline panleukopenia virus, human Parvovirus
2333/02 . . . Hepadnaviridae, e.g. hepatitis B virus
2333/025 . . . Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus
2333/03 . . . Herpetoviridae, e.g. pseudorabies virus
2333/032 . . . . Pseudorabies virus, i.e. Aujetzky virus
2333/035 . . . . Herpes simplex virus I or II

2333/04 . . . . Varicella-zoster virus
2333/045 . . . . . Cytomegalovirus
2333/05 . . . . Epstein-Barr virus
2333/055 . . . . Marek's disease virus
2333/06 . . . . Infectious bovine rhinotracheitis virus
2333/065 . . . Poxviridae, e.g. avipoxvirus
2333/07 . . . . Vaccinia virus; Variola virus
2333/075 . . . Adenoviridae
2333/08 . . RNA viruses
2333/085 . . . Picornaviridae, e.g. coxsackie virus, echovirus, enterovirus
2333/09 . . . . Foot-and-mouth disease virus
2333/095 . . . . Rhinovirus
2333/10 . . . . Hepatitis A virus
2333/105 . . . . Poliovirus
2333/11 . . . Orthomyxoviridae, e.g. influenza virus
2333/115 . . . Paramyxoviridae, e.g. parainfluenza virus
2333/12 . . . . Mumps virus; Measles virus
2333/125 . . . . Newcastle disease virus
2333/13 . . . . Canine distemper virus
2333/135 . . . . Respiratory syncytial virus
2333/14 . . . Reoviridae, e.g. rotavirus, bluetongue virus, Colorado tick fever virus
2333/145 . . . Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokda virus, vesicular stomatitis virus
2333/15 . . . Retroviridae, e.g. bovine leukaemia virus, feline leukaemia virus, feline leukaemia virus, human T-cell leukaemia-lymphoma virus
2333/155 . . . . Lentiviridae, e.g. visna-maedi virus, equine infectious virus, FIV, SIV
2333/16 . . . . . HIV-1, HIV-2
2333/161 . . . . . gag-pol, e.g. p55, p24/25, p17/18, p.7, p6, p66/68, p51/52, p31/34, p32, p40
2333/162 . . . . . env, e.g. gp160, gp110/120, gp41, V3, peptid T, DC4-Binding site
2333/163 . . . . . Regulatory proteins, e.g. tat, nef, rev, vif, vpu, vpr, vpt, vpx
2333/165 . . . Coronaviridae, e.g. avian infectious bronchitis virus
2333/17 . . . . Porcine transmissible gastroenteritis virus
2333/175 . . . Bunyaviridae, e.g. California encephalitis virus, Rift valley fever virus, Hantaan virus
2333/18 . . . Togaviridae; Flaviviridae
2333/181 . . . . Alphaviruses or Group A arboviruses, e.g. sindbis, VEE, EEE, WEE or semliki forest virus (rubella virus G01N 2333/19)
2333/183 . . . . Flaviviridae, e.g. pestivirus, mucosal disease virus, bovine viral diarrhoea virus, classical swine fever virus (hog cholera virus) or border disease virus
2333/185 . . . . . Flaviviruses or Group B arboviruses, e.g. yellow fever virus, japanese encephalitis, tick-borne encephalitis, dengue
2333/186 . . . . . Hepatitis C; Hepatitis NANB
2333/188 . . . . . Hepatitis G; Hepatitis NANBNCNDNE
2333/19 . . . . Rubella virus
2333/195 . from bacteria

NOTE

In groups G01N 2333/20 - G01N 2333/365, where appropriate, after the bacteria terminology, the indication of the order (O), family (F) or genus (G) of the bacteria is given in brackets.

2333/20 . . from Spirochaetales (O), e.g. Treponema, Leptospira
2333/205 . . from Campylobacter (G)
2333/21 . . from Pseudomonadaceae (F)
2333/212 . . . Moraxellaceae, e.g. Acinetobacter, Moraxella, Oligella or Psychrobacter
2333/215 . . from Halobacteriaceae (F)
2333/22 . . from Neisseriaceae (F), e.g. Acinetobacter
2333/225 . . from Alcaligenes (G)
2333/23 . . from Brucella (G)
2333/235 . . from Bordetella (G)
2333/24 . . from Enterobacteriaceae (F), e.g. Citrobacter, Serratia, Proteus, Providencia, Morganella, Yersinia
2333/245 . . . Escherichia (G)
2333/25 . . . Shigella (G)
2333/255 . . . Salmonella (G)
2333/26 . . . Klebsiella (G)
2333/265 . . . Enterobacter (G)
2333/27 . . . Erwinia (G)
2333/275 . . . Hafnia (G)
2333/28 . . from Vibrionaceae (F)
2333/285 . . from Pasteurellaceae (F), e.g. Haemophilus influenza
2333/29 . . from Richettsiales (o)
2333/295 . . from Chlamydiales (o)
2333/30 . . from Mycoplasmatales, e.g. Pleuropneumonia-like organisms [PPLO]
2333/305 . . from Micrococcaceae (F)
2333/31 . . . from Staphylococcus (G)
2333/315 . . from Streptococcus (G), e.g. Enterococci
2333/3153 . . . Streptokinase
2333/3156 . . . from Streptococcus pneumoniae (Pneumococcus) (Streptokinase G01N 2333/3153)
2333/32 . . from Bacillus (G)
2333/325 . . . Bacillus thuringiensis crystal protein (delta-endotoxin)
2333/33 . . from Clostridium (G)
2333/335 . . from Lactobacillus (G)
2333/34 . . from Corynebacterium (G)
2333/345 . . from Brevibacterium (G)
2333/35 . . from Mycobacteriaceae (F)
2333/355 . . from Nocardia (G)
2333/36 . . from Actinomyces; from Streptomyces (G)
2333/365 . . from Actinoplanes (G)
2333/37 . from fungi
2333/375 . . from Basidiomycetes
2333/38 . . from Aspergillus
2333/385 . . from Penicillium
2333/39 . . from yeasts
2333/395 . . . from Saccharomyces
2333/40 . . . from Candida
2333/405 . from algae
2333/41 . from lichens
2333/415 . from plants
2333/42 . . Lectins, e.g. concanavalin, phytohaemagglutinin
2333/425 . . Zeins
2333/43 . . Sweetening agents, e.g. thaumatin, monellin

2333/435 . from animals; from humans
2333/43504 . . from invertebrates
2333/43508 . . . from crustaceans
2333/43513 . . . from arachnidae
2333/43517 . . . . from spiders
2333/43521 . . . . from scorpions
2333/43526 . . . from worms
2333/4353 . . . . from nematodes
2333/43534 . . . . . from Caenorhabditis
2333/43539 . . . . from cestodes
2333/43543 . . . . . from Taenia
2333/43547 . . . . from trematodes
2333/43552 . . . from insects
2333/43556 . . . . from ticks
2333/4356 . . . . from wasps
2333/43565 . . . . from bees
2333/43569 . . . . from flies
2333/43573 . . . . . from Drosophila
2333/43578 . . . . from silkworm
2333/43582 . . . . from mites
2333/43586 . . . . from fleas
2333/43591 . . . . from mosquitoes
2333/43595 . . . from coelenteratae, e.g. medusae
2333/44 . . from protozoa
2333/445 . . . Plasmodium
2333/45 . . . Toxoplasma
2333/455 . . . Eimeria
2333/46 . . from vertebrates
2333/4603 . . . from fish
2333/4606 . . . from amphibians
2333/4609 . . . from reptiles
2333/4613 . . . . Snake venom
2333/4616 . . . . . from Russell's viper
2333/462 . . . . . from Agkistrodon sp., e.g. acutase, ACTE
2333/4623 . . . . . from Agkistrodon rhodostama (Malayan pit viper); Arvin (R); Batroboxin; Ancrod
2333/4626 . . . . . from Agkistrodon contortrix contortrix (copperhead snake); Protac (R)
2333/463 . . . . . from Croatalus adamanteus (Eastern Diamondback rattlesnake); Crotolase
2333/4633 . . . . . from Echis carinatus; Ecarin
2333/4636 . . . . . from Bothrops sp.
2333/464 . . . . . from Bothrops atrox; Reptilase; Atroxin
2333/4643 . . . . . from Bothrops jararaca; Botrocetin
2333/4646 . . . . . from Oxyuran(eo)us scutellatus (Taipan snake of Elapidae family)
2333/465 . . . from birds

NOTE

In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned irrespective to the source of the indicated proteins.

2333/47 . . . Assays involving proteins of known structure or function as defined in the subgroups
2333/4701 . . . . Details
2333/4703 . . . . . Regulators; Modulating activity
2333/4704 . . . . . Inhibitors; Supressors
2333/4706 . . . . . stimulating, promoting or activating activity
2333/4707 . . . . . Guanosine triphosphatase activating protein, GAP
2333/4709 . . . . . Amyloid plaque core protein
2333/471 . . . . . Pregnancy proteins, e.g. placenta proteins, alpha-feto-protein, pregnancy specific beta glycoprotein
2333/4712 . . . . . Muscle proteins, e.g. myosin, actin, protein
2333/4713 . . . . . Plasma globulins, lactoglobulin
2333/4715 . . . . . Cytokine-induced proteins
2333/4716 . . . . . Complement proteins, e.g. anaphylatoxin, C3a, C5a
2333/4718 . . . . . Lipocortins
2333/4719 . . . . . G-proteins
2333/4721 . . . . . Cationic antimicrobial peptides, e.g. defensins
2333/4722 . . . . . Proteoglycans, e.g. aggreccan
2333/4724 . . . . . Lectins
2333/4725 . . . . . Mucins, e.g. human intestinal mucin
2333/4727 . . . . . Calcium binding proteins, e.g. calmodulin
2333/4728 . . . . . alpha-Glycoproteins
2333/473 . . . . . Recognins, e.g. malignin
2333/4731 . . . . . Casein
2333/4733 . . . . . Acute pancreatitis-associated protein
2333/4734 . . . . . Villin
2333/4736 . . . . . Retinoblastoma protein
2333/4737 . . . . . C-reactive protein
2333/4739 . . . . . Cyclin; Prad 1
2333/474 . . . . . Pancreatic thread protein; Reg protein
2333/4742 . . . . . Keratin; Cytokeratin
2333/4743 . . . . . Bactericidal/Permeability-increasing protein BPI
2333/4745 . . . . . Insulin-like growth factor binding protein
2333/4746 . . . . . Cancer-associated SCM-recognition factor, CRISPP
2333/4748 . . . . . p53
2333/475 . . Assays involving growth factors
2333/4753 . . . Hepatocyte growth factor; Scatter factor; Tumor cytotoxic factor II
2333/4756 . . . Neuregulins, i.e. p185erbB2 ligands, glial growth factor, heregulin, ARIA, neu differentiation factor
2333/48 . . . Nerve growth factor [NGF]
2333/485 . . . Epidermal growth factor [EGF] (urogastrone)
2333/49 . . . Platelet-derived growth factor [PDGF]
2333/495 . . . Transforming growth factor [TGF]
2333/50 . . . Fibroblast growth factors [FGF]
2333/501 . . . . acidic FGF [aFGF]
2333/503 . . . . basic FGF [bFGF]
2333/505 . . . Erythropoietin [EPO]
2333/51 . . . Bone morphogenetic factor; Osteogenins; Osteogenic factor; Bone-inducing factor
2333/515 . . . Angiogenesic factors; Angiogenin
2333/52 . . Assays involving cytokines
2333/521 . . . Chemokines
2333/522 . . . . Alpha-chemokines, e.g. NAP-2, ENA-78, GRO-alpha/MGSA/NAP-3, GRO-beta/ MIP-2alpha, GRO-gamma/MIP-2beta, IP-10, GCP-2, MIG, PBSF, PF-4 or KC
2333/523 . . . . Beta-chemokines, e.g. RANTES, I-309/ TCA-3, MIP-1alpha, MIP-1beta/ACT-2/ LD78/SCIF, MCP-1/MCAF, MCP-2, MCP-3, LDCF-1or LDCF-2
2333/524 . . . Thrombopoietin, i.e. C-MPL ligand
2333/525 . . . Tumor necrosis factor [TNF]

2333/5255 . . . . Lymphotoxin [LT]
2333/53 . . . Colony-stimulating factor [CSF]
2333/535 . . . . Granulocyte CSF; Granulocyte-macrophage CSF
2333/54 . . . Interleukins [IL]
2333/5403 . . . . IL-3
2333/5406 . . . . IL-4
2333/5409 . . . . IL-5
2333/5412 . . . . IL-6
2333/5415 . . . . Leukaemia inhibitory factor [LIF]
2333/5418 . . . . IL-7
2333/5421 . . . . IL-8
2333/5425 . . . . IL-9
2333/5428 . . . . IL-10
2333/5431 . . . . IL-11
2333/5434 . . . . IL-12
2333/5437 . . . . IL-13
2333/544 . . . . IL-14
2333/5443 . . . . IL-15
2333/5446 . . . . IL-16
2333/545 . . . . IL-1
2333/55 . . . . IL-2
2333/555 . . . Interferons [IFN]
2333/56 . . . . IFN-alpha
2333/565 . . . . IFN-beta
2333/57 . . . . IFN-gamma
2333/575 . . Hormones (derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin G01N 2333/665, corticotropin G01N 2333/695)
2333/5751 . . . Corticotropin releasing factor [CRF] (Urotensin)
2333/5752 . . . Placental lactogen; Chorionic Somatomammotropin
2333/5753 . . . Calcitonin gene related peptide
2333/5754 . . . Endothelin, vasoactive intestinal contractor [VIC]
2333/5755 . . . Neuropeptide Y
2333/5756 . . . Prolactin
2333/5757 . . . Vasoactive intestinal peptide [VIP] or related peptides
2333/5758 . . . Gastrin releasing peptide
2333/5759 . . . Thymosin or related peptides
2333/58 . . . Atrial natriuretic factor complex; Atriopeptin; Atrial natriuretic peptide [ANP]; Brain natriuretic peptide [BNP, proBNP]; Cardionatrin; Cardiodilatin
2333/585 . . . Calcitonins
2333/59 . . . Follicle-stimulating hormone [FSH]; Chorionic gonadotropins, e.g. HCG; Luteinising hormone [LH]; Thyroid-stimulating hormone [TSH]
2333/595 . . . Gastrins; Cholecystokinins [CCK]
2333/60 . . . Growth-hormone releasing factors (GH-RF) (Somatoliberin)
2333/605 . . . Glucagons
2333/61 . . . Growth hormones [GH] (Somatotropin)
2333/62 . . . Insulins
2333/63 . . . Motilins
2333/635 . . . Parathyroid hormone (parathormone); Parathyroid hormone-related peptides
2333/64 . . . Relaxins
2333/645 . . . Secretins
2333/65 . . . Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2
2333/655 . . . Somatostatins
2333/66 . . . Thymopoietins
2333/665 . . Assays involving proteins derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin
2333/67 . . . Lipotropins, e.g. beta, gamma lipotropin
2333/675 . . . beta-Endorphins
2333/68 . . . Melanocyte-stimulating hormone [MSH]
2333/685 . . . . alpha-Melanotropin
2333/69 . . . . beta-Melanotropin
2333/695 . . . Corticotropin [ACTH]
2333/70 . . . Enkephalins
2333/705 . . Assays involving receptors, cell surface antigens or cell surface determinants
2333/70503 . . . Immunoglobulin superfamily, e.g. VCAMs, PECAM, LFA-3
2333/70507 . . . . C2D
2333/7051 . . . . T-cell receptor (TcR)-CD3 complex
2333/70514 . . . . CD4
2333/70517 . . . . CD8
2333/70521 . . . . CD28, CD152
2333/70525 . . . . ICAM molecules, e.g. CD50, CD54, CD102
2333/70528 . . . . CD58
2333/70532 . . . . B7 molecules, e.g. CD80, CD86
2333/70535 . . . . Fc-receptors, e.g. CD16, CD32, CD64 (CD2314/705F)
2333/70539 . . . . MHC-molecules, e.g. HLA-molecules
2333/70542 . . . . CD106
2333/70546 . . . Integrin superfamily, e.g. VLAs, leuCAM, GPIIb/GPIIIa, LPAM
2333/7055 . . . . Integrin beta1-subunit-containing molecules, e.g. CD29, CD49
2333/70553 . . . . Integrin beta2-subunit-containing molecules, e.g. CD11, CD18
2333/70557 . . . . Integrin beta3-subunit-containing molecules, e.g. CD41, CD51, CD61
2333/7056 . . . Selectin superfamily, e.g. LAM-1, GlyCAM, ELAM-1, PADGEM
2333/70564 . . . . Selectins, e.g. CD62
2333/70567 . . . Nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, nuclear orphan receptors
2333/70571 . . . for neuromediators, e.g. serotonin receptor, dopamine receptor
2333/70575 . . . NGF/TNF-superfamily, e.g. CD70, CD95L, CD153 or CD154 (NGF G01N 2333/48, TNF G01N 2333/525)
2333/70578 . . . NGF-receptor/TNF-receptor superfamily, e.g. CD27, CD30 CD40 or CD95 (NGF-receptor G01N 2333/71, TNF-receptor G01N 2333/7151)
2333/70582 . . . CD71
2333/70585 . . . CD44
2333/70589 . . . CD45
2333/70592 . . . CD52
2333/70596 . . . Molecules with a "CD"-designation not provided for elsewhere in G01N 2333/705
2333/71 . . . for growth factors; for growth regulators
2333/715 . . . for cytokines; for lymphokines; for interferons
2333/7151 . . . . for tumor necrosis factor [TNF]; for lymphotoxin [LT]
2333/7153 . . . . or colony-stimulating factors [CSF]
2333/7155 . . . . for interleukins [IL]
2333/7156 . . . . for interferons [IFN]

2333/7158 . . . . for chemokines
2333/72 . . . for hormones (for neuromediators G01N 2333/70571)
2333/723 . . . . Steroid/thyroid hormone superfamily, e.g. GR, EcR, androgen receptor, oestrogen receptor
2333/726 . . . . G protein coupled receptor, e.g. TSHR-thyrotropin-receptor, LH/hCG receptor, FSH
2333/745 . . Assays involving non-enzymic blood coagulation factors
2333/7452 . . . Thrombomodulin
2333/7454 . . . Tissue factor (tissue thromboplastin, Factor III)
2333/7456 . . . Factor V
2333/7458 . . . Protein S
2333/75 . . . Fibrin; Fibrinogen
2333/755 . . . Factors VIII, e.g. factor VIII C [AHF], factor VIII Ag [VWF]
2333/76 . . Assays involving albumins other than in routine use for blocking surfaces or for anchoring haptens during immunisation
2333/765 . . . Serum albumin, e.g. HSA
2333/77 . . . Ovalbumin
2333/775 . . Apolipopeptides
2333/78 . . Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]
2333/785 . . Alveolar surfactant peptides; Pulmonary surfactant peptides
2333/79 . . Transferrins, e.g. lactoferrins, ovotransferrins
2333/795 . Porphyrin- or corrin-ring-containing peptides
2333/80 . . Cytochromes
2333/805 . . Haemoglobins; Myoglobins
2333/81 . Protease inhibitors
2333/8103 . . Exopeptidase (E.C. 3.4.11-19) inhibitors
2333/8107 . . Endopeptidase (E.C. 3.4.21-99) inhibitors
2333/811 . . . Serine protease (E.C. 3.4.21) inhibitors
2333/8114 . . . . Kunitz type inhibitors
2333/8117 . . . . . Bovine/basic pancreatic trypsin inhibitor (BPTI, aprotinin)
2333/8121 . . . . Serpins
2333/8125 . . . . . Alpha-1-antitrypsin
2333/8128 . . . . . Antithrombin III
2333/8132 . . . . . Plasminogen activator inhibitors
2333/8135 . . . . Kazal type inhibitors, e.g. pancreatic secretory inhibitor or ovomucoid
2333/8139 . . . Cysteine protease (E.C. 3.4.22) inhibitors, e.g. cystatin
2333/8142 . . . Aspartate protease (E.C. 3.4.23) inhibitors, e.g. HIV protease inhibitors
2333/8146 . . . Metalloprotease (E.C. 3.4.24) inhibitors, e.g. tissue inhibitor of metallo proteinase, TIMP
2333/815 . . from leeches, e.g. hirudin, eglin
2333/82 . Translation products from oncogenes
2333/825 . Metallothioneins
2333/90 . Enzymes; Proenzymes

NOTE

Enzymes are generally categorised below according to the "Nomenclature and Classification of Enzymes" of the International Commission on Enzymes. Where appropriate, this designation appears in the groups below in parenthesis.

2333/9005 . . Enzymes with nucleic acid structure; e.g. ribozymes
2333/901 . . Antibodies with enzymatic activity; e.g. abzymes
2333/9015 . . Ligases (6)
2333/902 . . Oxidoreductases (1.)
2333/90203 . . . acting on the aldehyde or oxo group of donors (1.2)
2333/90206 . . . acting on the CH-CH group of donors (1.3)
2333/90209 . . . acting on NADH or NADPH (1.6), e.g. those with a heme protein as acceptor (1.6.2) (general), Cytochrome-b5 reductase (1.6.2.2) or NADPH-cytochrome P450 reductase (1.6.2.4)
2333/90212 . . . acting on a sulfur group of donors (1.8)
2333/90216 . . . acting on a heme group of donors (1.9)
2333/90219 . . . acting on diphenols and related substances as donors (1.10)
2333/90222 . . . . with oxygen as acceptor (1.10.3) in general
2333/90225 . . . . . with a definite EC number (1.10.3.-)
2333/90229 . . . . . Catechol oxidase, i.e. Tyrosinase (1.10.3.1)
2333/90232 . . . . . Laccase (1.10.3.2)
2333/90235 . . . . . Ascorbate oxidase (1.10.3.3)
2333/90238 . . . acting on hydrogen as donor (1.12)
2333/90241 . . . acting on single donors with incorporation of molecular oxygen, i.e. oxygenases (1.13)
2333/90245 . . . acting on paired donors with incorporation of molecular oxygen (1.14)
2333/90248 . . . . with NADH or NADPH as one of the donors, and incorporation of one atom of oxygen 1.14.13
2333/90251 . . . . . with a definite EC number (1.14.13.-)
2333/90254 . . . . . Nitric-oxide synthase (NOS; 1.14.13.39)
2333/90258 . . . . with a reduced iron-sulfur protein as one donor (1.14.15) in general
2333/90261 . . . . . with a definite EC number (1.14.15.-)
2333/90264 . . . . . Steroid 11 beta monooxygenase (P-450 protein)(1.14.15.4)
2333/90267 . . . . . Cholesterol monooxygenase (cytochrome P 450scc)(1.14.15.6)
2333/9027 . . . . Miscellaneous (1.14.99)
2333/90274 . . . . . with a definite EC number (1.14.99.-)
2333/90277 . . . . . Steroid 17 alpha-monooxygenase (1.14.99.9)
2333/9028 . . . . . Steroid 21-monooxygenase (1.14.99.10)
2333/90283 . . . acting on superoxide radicals as acceptor (1.15)
2333/90287 . . . oxidising metal ions (1.16)
2333/9029 . . . acting on -CH_2- groups (1.17)
2333/90293 . . . acting on reduced ferredoxin as donor (1.18)
2333/90296 . . . acting on reduced flavodoxin as donor (1.19)
2333/904 . . . acting on CHOH groups as donors, e.g. glucose oxidase, lactate dehydrogenase (1.1)
2333/906 . . . acting on nitrogen containing compounds as donors (1.4, 1.5, 1.7)
2333/90605 . . . . acting on the CH-NH_2 group of donors (1.4)
2333/90611 . . . . . with NAD or NADP as acceptor (1.4.1) in general
2333/90616 . . . . . with a definite EC number (1.4.1.-)
2333/90622 . . . . . Phenylalanine dehydrogenase (1.4.1.20)
2333/90627 . . . . . with a cytochrome as acceptor (1.4.2)
2333/90633 . . . . . with oxygen as acceptor (1.4.3) in general
2333/90638 . . . . . with a definite EC number (1.4.3.-)
2333/90644 . . . . . D-Amino acid oxidase (1.4.3.3)

2333/9065 . . . . acting on CH-NH groups of donors (1.5)
2333/90655 . . . . . with NAD or NADP as acceptor (1.5.1) in general
2333/90661 . . . . . with a definite EC number (1.5.1.-)
2333/90666 . . . . . Dihydrofolate reductase [DHFR] (1.5.1.3)
2333/90672 . . . . . with oxygen as acceptor (1.5.3) in general
2333/90677 . . . . . with a definite EC number (1.5.3.-)
2333/90683 . . . . . Sarcosine oxidase (1.5.3.1)
2333/90688 . . . . acting on other nitrogen compounds as donors (1.7)
2333/90694 . . . . . with oxygen as acceptor (1.7.3), e.g. uricase (1.7.3.3)
2333/908 . . . acting on hydrogen peroxide as acceptor (1.11)
2333/91 . . Transferases (2.)
2333/91005 . . . transferring one-carbon groups (2.1)
2333/91011 . . . . Methyltransferases (general) (2.1.1.)
2333/91017 . . . . . with definite EC number (2.1.1.-)
2333/91022 . . . . . Catecholmethyltransferases (2.1.1.6)
2333/91028 . . . . Hydroxymethyl-, formyl-transferases (2.1.2)
2333/91034 . . . . Carboxyl- and carbamoyl transferases (2.1.3)
2333/9104 . . . Aldehyde and ketone transferases (2.2)
2333/91045 . . . Acyltransferases (2.3)
2333/91051 . . . . Acyltransferases other than aminoacyltransferases (general) (2.3.1)
2333/91057 . . . . . with definite EC number (2.3.1.-)
2333/91062 . . . . . Chloramphenicol-acetyltransferases (2.3.1.28)
2333/91068 . . . . . Chalcone synthases (2.3.1.74)
2333/91074 . . . . Aminoacyltransferases (general) (2.3.2)
2333/9108 . . . . . with definite EC number (2.3.2.-)
2333/91085 . . . . . Transglutaminases; Factor XIIIq (2.3.2.13)
2333/91091 . . . Glycosyltransferases (2.4)
2333/91097 . . . . Hexosyltransferases (general) (2.4.1)
2333/91102 . . . . . with definite EC number (2.4.1.-)
2333/91108 . . . . . Levansucrases (2.4.1.10)
2333/91114 . . . . . Cellulose synthases (2.4.1.12)
2333/9112 . . . . . Sucrose synthases (2.4.1.13)
2333/91125 . . . . . Sucrose phosphate synthases (2.4.1.14)
2333/91131 . . . . . Glucan branching enzymes (2.4.1.18)
2333/91137 . . . . . Cyclomalto dextrin glucano transferases (2.4.1.19)
2333/91142 . . . . Pentosyltransferases (2.4.2)
2333/91148 . . . . transferring other glycosyl groups (2.4.99)
2333/91154 . . . . transferring alkyl or aryl groups other than methyl groups (2.5)
2333/9116 . . . transferring alkyl or aryl groups other than methyl groups (2.5)
2333/91165 . . . . general (2.5.1)
2333/91171 . . . . . with definite EC number (2.5.1.-)
2333/91177 . . . . . Glutathione transferases (2.5.1.18)
2333/91182 . . . . . Enolpyruvylshikimate-phosphate synthases (2.5.1.19)
2333/91188 . . . transferring nitrogenous groups (2.6)
2333/91194 . . . transferring sulfur containing groups (2.8)
2333/912 . . . transferring phosphorus containing groups, e.g. kinases (2.7)
2333/91205 . . . . Phosphotransferases in general
2333/9121 . . . . . with an alcohol group as acceptor (2.7.1), e.g. general tyrosine, serine or threonine kinases
2333/91215 . . . . . with a definite EC number (2.7.1.-)
2333/9122 . . . . . Thymidine kinase (2.7.1.21)
2333/91225 . . . . . with a carboxyl group as acceptor (2.7.2)
2333/9123 . . . . . with a nitrogenous group as acceptor (2.7.3), e.g. histidine kinases
2333/91235 . . . . . with a phosphate group as acceptor (2.7.4)
2333/9124 . . . . . Diphosphotransferases (2.7.6)
2333/91245 . . . . . Nucleotidyltransferases (2.7.7)
2333/9125 . . . . . with a definite EC number (2.7.7.-)
2333/91255 . . . . . DNA-directed RNA polymerase (2.7.7.6)
2333/9126 . . . . . DNA-directed DNA polymerase (2.7.7.7)
2333/91265 . . . . . Polyribonucleotide nucleotidyl transferases, i.e. polynucleotide phosphorylase (2.7.7.8)
2333/9127 . . . . . DNA nucleotidyl-exotransferases, i.e. terminal nucleotidyl transferases (2.7.7.31)
2333/91275 . . . . . RNA-directed RNA polymerases, e.g. replicases (2.7.7.48)
2333/9128 . . . . . RNA-directed DNA polymerases, e.g. RT (2.7.7.49)
2333/91285 . . . . . RNA uridyltransferases (2.7.7.52)
2333/9129 . . . . . Transferases for other substituted phosphate groups (2.7.8)
2333/91295 . . . . . with paired acceptors (2.7.9)
2333/914 . . Hydrolases (3)
2333/916 . . . acting on ester bonds (3.1), e.g. phosphatases (3.1.3), phospholipases C or phospholipases D (3.1.4)
2333/918 . . . . Carboxylic ester hydrolases (3.1.1)
2333/92 . . . . . Triglyceride splitting, e.g. by means of lipase
2333/922 . . . . Ribonucleases (RNAses); Deoxyribonucleases (DNAses)
2333/924 . . . acting on glycosyl compounds (3.2)
2333/926 . . . . acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/928 . . . . . acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/93 . . . . . Fungal source
2333/932 . . . . . alpha-amylase from plant source
2333/934 . . . . . Glucoamylase
2333/936 . . . . acting on beta-1, 4 bonds between N-acetylmuramic acid and 2-acetyl-amino 2-deoxy-D-glucose, e.g. lysozyme
2333/938 . . . . acting on beta-galactose-glycoside bonds, e.g. beta-galactosidase
2333/94 . . . . acting on alpha-galactose-glycoside bonds, e.g. alpha-galactosidase
2333/942 . . . . acting on beta-1, 4-glucosidic bonds, e.g. cellulase
2333/944 . . . . acting on alpha-1, 6-glucosidic bonds, e.g. isoamylase, pullulanase
2333/946 . . . . . Dextranase
2333/948 . . . acting on peptide bonds (3.4)
2333/95 . . . . Proteinases, i.e. endopeptidases (3.4.21-3.4.99)
2333/9506 . . . . . derived from viruses
2333/9513 . . . . . derived from RNA viruses
2333/952 . . . . . derived from bacteria
2333/954 . . . . . bacteria being Bacillus

2333/956 . . . . . Bacillus subtilis or Bacillus licheniformis
2333/958 . . . . . derived from fungi
2333/96 . . . . . from yeast
2333/962 . . . . . from Aspergillus
2333/964 . . . . . derived from animal tissue
2333/96402 . . . . . from non-mammals
2333/96405 . . . . . in general
2333/96408 . . . . . with EC number
2333/96411 . . . . . Serine endopeptidases (3.4.21)
2333/96413 . . . . . Cysteine endopeptidases (3.4.22)
2333/96416 . . . . . Aspartic endopeptidases (3.4.23)
2333/96419 . . . . . Metalloendopeptidases (3.4.24)
2333/96422 . . . . . from snakes
2333/96425 . . . . . from mammals
2333/96427 . . . . . in general
2333/9643 . . . . . with EC number
2333/96433 . . . . . Serine endopeptidases (3.4.21)
2333/96436 . . . . . Granzymes
2333/96438 . . . . . Dibasic site splicing serine proteases, e.g. furin
2333/96441 . . . . . with definite EC number
2333/96444 . . . . . Factor X (3.4.21.6)
2333/96447 . . . . . Factor VII (3.4.21.21)
2333/9645 . . . . . Factor IX (3.4.21.22)
2333/96452 . . . . . Factor XI (3.4.21.27)
2333/96455 . . . . . Kallikrein (3.4.21.34; 3.4.21.35)
2333/96458 . . . . . Factor XII (3.4.21.38)
2333/96461 . . . . . Protein C (3.4.21.69)
2333/96463 . . . . . Blood coagulation factors not provided for in a preceding group or according to more than one of the proceeding groups
2333/96466 . . . . . Cysteine endopeptidases (3.4.22)
2333/96469 . . . . . Interleukin 1-beta convertase-like enzymes
2333/96472 . . . . . Aspartic endopeptidases (3.4.23)
2333/96475 . . . . . with definite EC number
2333/96477 . . . . . Pepsin (3.4.23.1; 3.4.23.2; 3.4.23.3)
2333/9648 . . . . . Chymosin, i.e. rennin (3.4.23.4)
2333/96483 . . . . . Renin (3.4.23.15)
2333/96486 . . . . . Metalloendopeptidases (3.4.24)
2333/96488 . . . . . Phosporamidon sensitive endothelin converting enzymes
2333/96491 . . . . . with definite EC number
2333/96494 . . . . . Matrix metalloproteases, e. g. 3.4.24.7
2333/96497 . . . . . Enkephalinase (3.4.24.11)
2333/966 . . . . Elastase
2333/968 . . . . Plasmin, i.e. fibrinolysin
2333/972 . . . . Plasminogen activators
2333/9723 . . . . . Urokinase
2333/9726 . . . . . Tissue plasminogen activator
2333/974 . . . . Thrombin
2333/976 . . . . Trypsin; Chymotrypsin
2333/978 . . . acting on carbon to nitrogen bonds other than peptide bonds (3.5)
2333/98 . . . . acting on amide bonds in linear amides (3.5.1)
2333/982 . . . . . Asparaginase
2333/984 . . . . . Penicillin amidase
2333/986 . . . . acting on amide bonds in cyclic amides (3.5.2), e.g. beta-lactamase (penicillinase, 3.5.2.6), creatinine amidohydrolase (creatininase, EC 3.5.2.10), N-methylhydantoinase (3.5.2.6)
2333/988 . . Lyases (4.), e.g. aldolases, heparinase, enolases, fumarase
2333/99 . . Isomerases (5.)
2333/992 . . . Glucose isomerase; Xylose isomerase; Glucose-6-phosphate isomerase
2333/994 . . Pancreatin

2400/00 **Assays, e.g. immunoassays or enzyme assays, involving carbohydrates**
2400/02 . involving antibodies to sugar part of glycoproteins (lectins from plants G01N 2333/42, lectins from mammals G01N 2333/4724)
2400/10 . Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters
2400/12 . . Homoglycans, i.e. polysaccharides having a main chain consisting of one single sugar
2400/14 . . . alpha-D-Glucans, i.e. having alpha 1,n (n=3,4,6) linkages between saccharide units, e.g. pullulan
2400/16 . . . . Starch, amylose, amylopectin
2400/18 . . . . Cyclodextrin
2400/22 . . . . Dextran
2400/24 . . . beta-D-Glucans, i.e. having beta 1,n (n=3,4,6) linkages between saccharide units, e.g. xanthan
2400/26 . . . . Cellulose
2400/28 . . . . Chitin, chitosan
2400/32 . . . Galactans, e.g. agar, agarose, agaropectin, carrageenan
2400/34 . . . alpha-D-Galacturonans, e.g. pectin
2400/36 . . . beta-D-Fructofuranans, e.g. levan, insulin
2400/38 . . Heteroglycans, i.e. polysaccharides having more than one sugar residue in the main chain in either alternating or less regular sequence, e.g. gluco- or galactomannans, e.g. Konjac gum, Locust bean gum, Guar gum (proteoglycans G01N 2333/4722)
2400/40 . . . Glycosaminoglycans, i.e. GAG or mucopolysaccharides, e.g. chondroitin sulfate, dermatan sulfate, hyaluronic acid, heparin, heparan sulfate, and related sulfated polysaccharides
2400/44 . . . Guluromannuronans, e.g. alginic acid
2400/46 . . Pectin
2400/48 . . Reserve carbohydrates, e.g. glycogen
2400/50 . . Lipopolysaccharides; LPS

2405/00 **Assays, e.g. immunoassays or enzyme assays, involving lipids** (lipopolysaccharides G01N 2400/50)
2405/02 . Triacylglycerols
2405/04 . Phospholipids, i.e. phosphoglycerides
2405/06 . . Glycophospholipids, e.g. phosphatidyl inositol
2405/08 . Sphingolipids
2405/10 . . Glycosphingolipids, e.g. cerebrosides, gangliosides

2407/00 **Assays, e.g. immunoassays or enzyme assays, involving terpenes**
2407/02 . Taxol; Taxanes

2410/00 **Assays, e.g. immunoassays or enzyme assays, involving peptides of less than 20 animo acids**
2410/02 . Angiotensins; Related peptides
2410/04 . Oxytocins; Vasopressins; Related peptides
2410/06 . Kallidins; Bradykinins; Related peptides
2410/08 . Cyclosporins and related peptides
2410/10 . Valinomycins and derivatives thereof

2415/00 **Assays, e.g. immunoassays or enzyme assays, involving penicillins or cephalosporins**

2430/00 **Assays, e.g. immunoassays or enzyme assays, involving synthetic organic compounds as analytes**
2430/10 . Insecticides
2430/12 . . Pyrethroids
2430/20 . Herbicides, e.g. DDT
2430/30 . Polychlorinated biphenyls (PCBs)
2430/40 . Dioxins
2430/50 . Polyaromatic hydrocarbons (PAHs)
2430/60 . Synthetic polymers other than synthetic polypeptides as analytes

2440/00 **Post-translational modifications [PTMs] in chemical analysis of biological material**
2440/10 . acylation, e.g. acetylation, formylation, lipoylation, myristoylation, palmitoylation
2440/12 . alkylation, e.g. methylation, (iso-)prenylation, farnesylation
2440/14 . phosphorylation
2440/16 . (de-)amidation
2440/18 . citrullination
2440/20 . formation of disulphide bridges
2440/22 . iodination
2440/24 . hydroxylation
2440/26 . nitrosylation
2440/28 . PEGylation
2440/30 . sulphation
2440/32 . biotinylation
2440/34 . addition of amino acid(s), e.g. arginylation, (poly-)glutamylation, (poly-)glycylation
2440/36 . addition of addition of other proteins or peptides, e.g. SUMOylation, ubiquitination
2440/38 . addition of carbohydrates, e.g. glycosylation, glycation
2440/40 . addition of nucleotides or derivatives, e.g. adenylation, flavin attachment

2446/00 **Magnetic particle immunoreagent carriers**
2446/10 . the magnetic material being used to coat a pre-existing polymer particle but not being present in the particle core
2446/20 . the magnetic material being present in the particle core
2446/30 . the magnetic material being dispersed in the polymer composition before their conversion into particulate form
2446/40 . the magnetic material being dispersed in the monomer composition prior to polymerisation
2446/60 . the magnetic material being dispersed in a medium other than the main solvent prior to incorporation into the polymer particle
2446/62 . . Magnetic material dispersed in water drop
2446/64 . . Magnetic material dispersed in oil drop
2446/66 . . Magnetic material dispersed in surfactant
2446/80 . characterised by the agent used to coat the magnetic particles, e.g. lipids
2446/84 . . Polymer coating, e.g. gelatin
2446/86 . . the coating being pre-functionalised for attaching immunoreagents, e.g. aminodextran
2446/90 . . characterised by small molecule linker used to couple immunoreagents to magnetic particles

2458/00 **Labels used in chemical analysis of biological material**
2458/10 . Oligonucleotides as tagging agents for labelling antibodies
2458/15 . Non-radioactive isotope labels, e.g. for detection by mass spectrometry
2458/20 . Labels for detection by gas chromatography, e.g. haloaryl systems
2458/30 . Electrochemically active labels
2458/40 . Rare earth chelates

2469/00 **Immunoassays for the detection of microorganisms**
2469/10 . Detection of antigens from microorganism in sample from host
2469/20 . Detection of antibodies in sample from host which are directed against antigens from microorganisms

2496/00 **Reference solutions for assays of biological material**
2496/05 . containing blood cells or plasma
2496/10 . containing particles to mimic blood cells
2496/15 . containing dyes to mimic optical absorption of, e.g. hemoglobin
2496/25 . containing added polymers to stabilise biological material against degradation or mantain viscosity or density, e.g. gelatin, polyacrylamides, polyvinyl alcohol (casein G01N 2333/4731, albumins G01N 2333/76, polysaccharides G01N 2400/10)
2496/30 . . Polyethylene glycol, e.g. PEG
2496/35 . . Polyvinylpyrrolidone, e.g. PVP
2496/45 . containing protease inhibitors, e.g. sulfonylfluorides, chloromethylketones, organophosphates (peptide-based protease inhibitors G01N 2333/81)
2496/70 . Blood gas control solutios containing dissolved oxygen, bicarbonate and the like
2496/80 . Multi-analyte reference solutions containing cholesterol, glucose and the like

2500/00 **Screening for compounds of potential therapeutic value**
2500/02 . Screening involving studying the effect of compounds C on the interaction between interacting molecules A and B (e.g. A = enzyme and B = substrate for A, or A = receptor and B = ligand for the receptor)
2500/04 . Screening involving studying the effect of compounds C directly on molecule A (e.g. C are potential ligands for a receptor A, or potential substrates for an enzyme A)
2500/10 . involving cells
2500/20 . cell-free systems

2510/00 **Detection of programmed cell death, i.e. apoptosis**

2520/00 **Use of whole organisms as detectors of pollution**

2550/00 **Electrophoretic profiling, e.g. for proteome analysis**

2560/00 **Chemical aspects of mass spectrometric analysis of biological material**

NOTES

1. Analysis of proteins, peptides or amino acids by mass spectrometry is classified in G01N 33/6848 and G01N 33/6851.
2. Analysis of nucleic acids by mass spectrometry is classified in C12Q 1/6872, C12Q 2563/167 and C12Q 2565/627.

2570/00 **Omics, e.g. proteomics, glycomics or lipidomics; Methods of analysis focusing on the entire complement of classes of biological molecules or subsets thereof, i.e. focusing on proteomes, glycomes or lipidomes**

2600/00 **Assays involving molecular imprinted polymers/ polymers created around a molecular template**

2610/00 **Assays involving self-assembled monolayers [SAMs]**

2650/00 **Assays involving polymers whose constituent monomers bore biological functional groups before polymerization, i.e. vinyl, acryl derivatives of amino acids, sugars**

2800/00 **Detection or diagnosis of diseases**

NOTES

1. The indexing codes G01N 2800/02 - G01N 2800/44 are based on The Merck Manual of Diagnosis and Therapy (17th. Edition, Mark Beers and Robert Berkow).
2. For diseases caused by microorganism where the microorganism is detected, which subject matter is classified in G01N 33/569 and subgroups, G01N 33/571 or G01N 33/576, the present indexing scheme is not used.
3. For cancers, which subject matter is classified in G01N 33/574 and subgroups, the present indexing scheme is not used.
4. When indexing in the following scheme, the organ takes precedence, e.g. inflammation of the skin is indexed with dermatological disorders and not with immunology or allergic disorders, asthma with pulmonary disorders and not with immunology or allergic disorders. Exception is made for thrombosis which is indexed with haematological disorders.

2800/02 . Nutritional disorders
2800/04 . Endocrine or metabolic disorders
2800/042 . . Disorders of carbohydrate metabolism, e.g. diabetes, glucose metabolism
2800/044 . . Hyperlipemia or hypolipemia, e.g. dyslipidaemia, obesity
2800/046 . . Thyroid disorders
2800/048 . . Pituitary or hypothalamic - pituitary relationships, e.g. vasopressin or ADH related
2800/06 . Gastro-intestinal diseases
2800/062 . . Gastritis or peptic ulcer disease
2800/065 . . Bowel diseases, e.g. Crohn, ulcerative colitis, IBS
2800/067 . . Pancreatitis or colitis
2800/08 . Hepato-biliairy disorders other than hepatitis
2800/085 . . Liver diseases, e.g. portal hypertension, fibrosis, cirrhosis, bilirubin
2800/10 . Musculoskeletal or connective tissue disorders
2800/101 . . Diffuse connective tissue disease, e.g. Sjögren, Wegener's granulomatosis
2800/102 . . . Arthritis; Rheumatoid arthritis, i.e. inflammation of peripheral joints
2800/104 . . . Lupus erythematosus [SLE]
2800/105 . . Osteoarthritis, e.g. cartilage alteration, hypertrophy of bone
2800/107 . . Crystal induced conditions; Gout
2800/108 . . Osteoporosis
2800/12 . Pulmonary diseases
2800/122 . . Chronic or obstructive airway disorders, e.g. asthma COPD
2800/125 . . Adult respiratory distress syndrome
2800/127 . . Bronchitis
2800/14 . Disorders of ear, nose or throat
2800/16 . Ophthalmology
2800/162 . . Conjunctival disorders, e.g. conjunctivitis
2800/164 . . Retinal disorders, e.g. retinopathy
2800/166 . . Cataract
2800/168 . . Glaucoma
2800/18 . Dental and oral disorders
2800/20 . Dermatological disorders
2800/202 . . Dermatitis
2800/205 . . Scaling palpular diseases, e.g. psoriasis, pytiriasis
2800/207 . . Pigmentation disorders
2800/22 . Haematology
2800/222 . . Platelet disorders
2800/224 . . Haemostasis or coagulation
2800/226 . . Thrombotic disorders, i.e. thrombo-embolism irrespective of location/organ involved, e.g. renal vein thrombosis, venous thrombosis
2800/228 . . Disorders of the spleen, e.g. splenic rupture, splenomegaly
2800/24 . Immunology or allergic disorders (SLE G01N 2800/104)
2800/245 . . Transplantation related diseases, e.g. graft versus host disease
2800/26 . Infectious diseases, e.g. generalised sepsis

NOTE

Indexing code G01N 2800/26 is not used for documents already classified in one or more of groups G01N 33/569 and subgroups, G01N 33/571 or G01N 33/576 and subgroups

2800/28 . Neurological disorders
2800/2807 . . Headache; Migraine
2800/2814 . . Dementia; Cognitive disorders
2800/2821 . . . Alzheimer
2800/2828 . . . Prion diseases
2800/2835 . . Movement disorders, e.g. Parkinson, Huntington, Tourette
2800/2842 . . Pain, e.g. neuropathic pain, psychogenic pain
2800/285 . . Demyelinating diseases; Multipel sclerosis
2800/2857 . . Seizure disorders; Epilepsy
2800/2864 . . Sleep disorders

2800/2871 . . Cerebrovascular disorders, e.g. stroke, cerebral infarct, cerebral haemorrhage, transient ischemic event
2800/2878 . . Muscular dystrophy
2800/2885 . . . Duchenne dystrophy
2800/2892 . . . Myotonic dystrophy
2800/30 . Psychoses; Psychiatry
2800/301 . . Anxiety or phobic disorders
2800/302 . . Schizophrenia
2800/303 . . Eating disorders, e.g. anorexia, bulimia
2800/304 . . Mood disorders, e.g. bipolar, depression
2800/305 . . Attention deficit disorder; Hyperactivity
2800/306 . . Chronic fatigue syndrome
2800/307 . . Drug dependency, e.g. alcoholism
2800/308 . . Psychosexual disorders, e.g. sexual arousal disorder
2800/32 . Cardiovascular disorders
2800/321 . . Arterial hypertension
2800/322 . . Orthostatic hypertension or syncope
2800/323 . . Arteriosclerosis, Stenosis
2800/324 . . Coronary artery diseases, e.g. angina pectoris, myocardial infarction
2800/325 . . Heart failure or cardiac arrest, e.g. cardiomyopathy, congestive heart failure
2800/326 . . Arrhythmias, e.g. ventricular fibrillation, tachycardia, atrioventricular block, torsade de pointes
2800/327 . . Endocarditis
2800/328 . . Vasculitis, i.e. inflammation of blood vessels
2800/329 . . Diseases of the aorta or its branches, e.g. aneurysms, aortic dissection
2800/34 . Genitourinary disorders
2800/341 . . Urinary incontinence
2800/342 . . Prostate diseases, e.g. BPH, prostatitis
2800/344 . . Disorders of the penis and the scrotum and erectile dysfuncrion
2800/345 . . Urinary calculi
2800/347 . . Renal failures; Glomerular diseases; Tubulointerstitial diseases, e.g. nephritic syndrome, glomerulonephritis; Renovascular diseases, e.g. renal artery occlusion, nephropathy
2800/348 . . Urinary tract infections
2800/36 . Gynecology or obstetrics
2800/361 . . Menstrual abnormalities or abnormal uterine bleeding, e.g. dysmenorrhea
2800/362 . . Menopause
2800/364 . . Endometriosis, i.e. non-malignant disorder in which functioning endometrial tissue is present outside the uterine cavity
2800/365 . . Breast disorders, e.g. mastalgia, mastitits, Paget's disease
2800/367 . . Infertility, e.g. sperm disorder, ovulatory dysfunction
2800/368 . . Pregnancy complicated by disease or abnormalities of pregnancy, e.g. preeclampsia, preterm labour
2800/38 . Pediatrics
2800/382 . . Cystic fibrosis
2800/385 . . Congenital anomalies
2800/387 . . . Down syndrome; Trisomy 18; Trisomy 13
2800/40 . Disorders due to exposure to physical agents, e.g. heat disorders, motion sickness, radiation injuries, altitude sickness, decompression illness
2800/42 . Poisoning, e.g. from bites or stings
2800/44 . Multiple drug resistance
2800/50 . Determining the risk of developing a disease
2800/52 . Predicting or monitoring the response to treatment; Prognosis
2800/54 . Determining the risk of relapse
2800/56 . Staging of a disease; Further complications associated with the disease
2800/60 . Complex ways of combining multiple protein biomarkers for diagnosis
2800/70 . Mechanisms involved in disease identification (G01N 2800/02 - G01N 2800/44 take precedence)
2800/7004 . . Stress
2800/7009 . . . Oxidative stress
2800/7014 . . (Neo)vascularisation - Angiogenesis
2800/7019 . . Ischaemia
2800/7023 . . (Hyper)proliferation
2800/7028 . . . Cancer
2800/7033 . . Non-proliferative mechanisms
2800/7038 . . Hypoxia
2800/7042 . . Aging, e.g. cellular aging
2800/7047 . . Fibrils-Filaments-Plaque formation
2800/7052 . . Fibrosis
2800/7057 . . (Intracellular) signaling and trafficking pathways
2800/7061 . . . Endoplasmic reticulum to Golgi trafficking
2800/7066 . . . Metabolic pathways
2800/7071 . . . . Carbohydrate metabolism, e.g. glycolysis, gluconeogenesis
2800/7076 . . . . Amino acid metabolism
2800/708 . . . . Nitrogen metabolism, e.g. urea cycle
2800/7085 . . . . Lipogenesis or lipolysis, e.g. fatty acid metabolism
2800/709 . . Toxin induced
2800/7095 . . Inflammation