

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 sensitivity, 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	2001/025	. . . {postal items}
2001/002	. {Devices for supplying or distributing samples to an analysing apparatus}	2001/027	. . . {field kits / quick test kits}
2001/005	. . {Packages for mailing or similar transport of samples}	2001/028	. . {Sampling from a surface, swabbing, vaporising}
2001/007	. . {Devices specially adapted for forensic samples, e.g. tamper-proofing, sample tracking}	1/04	. . in the solid state, e.g. by cutting
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 })	2001/045	. . . {Laser ablation; Microwave vaporisation}
2001/021	. . {Correlating sampling sites with geographical information, e.g. GPS}	1/06	. . . providing a thin slice, e.g. microtome
2001/022	. . {sampling for security purposes, e.g. contraband, warfare agents}	2001/061	. . . . {Blade details}
2001/024	. . . {passengers or luggage}	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}	1/2202	. . .	{involving separation of sample components during sampling}
2001/1018	. . . . .	{Gas suspensions; Fluidised beds}	1/2205	. . . .	{with filters}
2001/1025	. . . . .	{Liquid suspensions; Slurries; Mud; Sludge}	1/2208	. . . .	{with impactors}
2001/1031	. . .	{Sampling from special places}	1/2211	. . . .	{with cyclones}
2001/1037	. . . .	{from an enclosure (hazardous waste, radioactive)}	1/2214	. . . .	{by sorption}
2001/1043	. . . .	{from sewers}	2001/2217	. . . . .	{using a liquid}
2001/105	. . . .	{from high-pressure reactors or lines}	2001/222	. . . .	{Other features}
2001/1056	. . .	{Disposable (single-use) samplers}	2001/2223	. . . . .	{aerosol sampling devices}
2001/1062	. . .	{Sampling under constant temperature, pressure, or the like}	1/2226	. . .	{Sampling from a closed space, e.g. food package, head space}
2001/1068	. . . .	{Cooling sample below melting point}	2001/2229	. . . .	{Headspace sampling, i.e. vapour over liquid}
2001/1075	. . . .	{Trapping evaporated liquids by cooling}	2001/2232	. . . . .	{using a membrane, i.e. pervaporation}
2001/1081	. . . .	{Storing samples under refrigeration}	2001/2235	. . . .	{over a melt, e.g. furnace}
2001/1087	. . .	{Categories of sampling}	2001/2238	. . . .	{the gas being compressed or pressurized}
2001/1093	. . . .	{Composite sampling; Cumulative sampling}	2001/2241	. . . .	{purpose-built sampling enclosure for emissions}
1/12	. . .	Dippers; Dredgers	2001/2244	. . .	{Exhaled gas, e.g. alcohol detecting}
1/125	. . . .	{adapted for sampling molten metals}	1/2247	. . .	{Sampling from a flowing stream of gas}
1/14	. . .	Suction devices, e.g. pumps; Ejector devices	2001/225	. . . .	{isokinetic, same flow rate for sample and bulk gas}
1/1409	. . . .	{adapted for sampling molten metals}	1/2252	. . . .	{in a vehicle exhaust}
2001/1418	. . . .	{Depression, aspiration}	2001/2255	. . . . .	{with dilution of the sample}
2001/1427	. . . . .	{Positive displacement, piston, peristaltic}	1/2258	. . . .	{in a stack or chimney}
2001/1436	. . . . .	{Ejector}	2001/2261	. . . . .	{preventing condensation (heating lines)}
2001/1445	. . . .	{Overpressure, pressurisation at sampling point}	2001/2264	. . . .	{with dilution}
2001/1454	. . . . .	{Positive displacement, piston}	2001/2267	. . . .	{separating gas from liquid, e.g. bubbles}
2001/1463	. . . . .	{Injector; Air-lift}	2001/227	. . . .	{separating gas from solid, e.g. filter}
2001/1472	. . . .	{Devices not actuated by pressure difference}	1/2273	. . .	{Atmospheric sampling}
2001/1481	. . . . .	{Archimedian screw; Auger}	2001/2276	. . . .	{Personal monitors}
2001/149	. . . . .	{Capillaries; Sponges}	2001/2279	. . . .	{high altitude, e.g. rockets, balloons}
1/16	. . .	with provision for intake at several levels (G01N 1/2035) G01N 1/12 , G01N 1/14 take precedence)	2001/2282	. . .	{with cooling means}
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)	2001/2285	. . .	{Details of probe structures}
2001/185	. . . .	{Conveyor of containers successively filled}	2001/2288	. . . .	{Filter arrangements}
1/20	. . .	for flowing or falling materials (G01N 1/2035) G01N 1/12 , G01N 1/14 take precedence)	2001/2291	. . . .	{Movable probes, e.g. swivelling, swinging}
2001/2007	. . . .	{Flow conveyors}	1/2294	. . .	{Sampling soil gases or the like}
2001/2014	. . . . .	{Pneumatic conveyors}	2001/2297	. . .	{Timing devices}
2001/2021	. . . . .	{falling under gravity}	1/24	. . .	Suction devices (G01N 1/22 - G01N 1/2294 take precedence)
2001/2028	. . . . .	{Belts}	2001/241	. . . .	{Bellows}
1/2035	. . . .	{by deviating part of a fluid stream, e.g. by drawing-off or tapping}	2001/242	. . . .	{Injectors or ejectors}
1/2042	. . . . .	{using a piston actuated by the pressure of the liquid to be sampled}	2001/244	. . . . .	{using critical flow orifices}
2001/205	. . . . .	{using a valve}	2001/245	. . . .	{Fans}
2001/2057	. . . . .	{Sample chamber in a valve/piston}	2001/247	. . . .	{Syringes}
2001/2064	. . . . .	{using a by-pass loop}	2001/248	. . . .	{Evacuated containers}
2001/2071	. . . . .	{Removable sample bottle}	1/26	. . .	with provision for intake from several spaces
2001/2078	. . . . .	{Pre-evacuated bottle}	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)
2001/2085	. . . . .	{Non-pre-evacuated septum closed bottles}	1/2806	. .	{Means for preparing replicas of specimens, e.g. for microscopical analysis}
2001/2092	. . . .	{Cross-cut sampling}	1/2813	. .	{Producing thin layers of samples on a substrate, e.g. smearing, spinning-on (G01N 1/30 takes precedence)}
1/22	. .	in the gaseous state {(specially adapted for biological material G01N 33/497 ; measuring breath flow A61B 5/087)}	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}	2001/4066	. . . . {using difference of solubility between liquid and gas, e.g. bubbling, scrubbing or sparging}
2001/284	. . . . {using local activation of adhesive, i.e. Laser Capture Microdissection}	2001/4072	. . . . {membraneless transfer of a component between two parallel laminar flows of fluid}
2001/2846	. . . {Cytocentrifuge method}	1/4077	. . . {by other techniques involving separation of suspended solids}
1/2853	. . {Shadowing samples}	2001/4083	. . . . {sedimentation}
1/286	. . {involving mechanical work, e.g. chopping, disintegrating, compacting, homogenising (microtomes G01N 1/06 ; pulverising in general B02C ; mixing in general B01F)}	2001/4088	. . . . {filtration}
2001/2866	. . . {Grinding or homogeneising}	2001/4094	. . . . {using ultrasound}
2001/2873	. . . {Cutting or cleaving}	1/42	. . Low-temperature sample treatment, e.g. cryofixation
2001/288	. . . . {Filter punches}	1/44	. . Sample treatment involving radiation, e.g. heat
2001/2886	. . . . {Laser cutting, e.g. tissue catapult}	3/00	Investigating strength properties of solid materials by application of mechanical stress (strain gauges G01B; measuring stress in general G01L)
2001/2893	. . {Preparing calibration standards}		NOTE
1/30	. . Staining; Impregnating {Fixation; Dehydration; Multistep processes for preparing samples of tissue, cell or nucleic acid material and the like for analysis}		This group <u>covers</u> the stressing of materials not only below but also beyond the elastic limit, e.g. until breaking occurs.
2001/302	. . . {Stain compositions}	3/02	. Details
2001/305	. . . {Fixative compositions}	3/04	. . Chucks
2001/307	. . . . {non-toxic, no Hg, no formaldehyde}	3/06	. . Special adaptations of indicating or recording means (indicating or recording means for measuring in general G01D)
1/31	. . . Apparatus therefor	3/062	. . . {with mechanical indicating or recording means}
1/312	. . . . {for samples mounted on planar substrates}	3/064	. . . {with hydraulic indicating or recording means}
2001/315	. . . . {Basket-type carriers for tissues}	3/066	. . . {with electrical indicating or recording means}
2001/317	. . . . {spraying liquids onto surfaces}	3/068	. . . {with optical indicating or recording means}
1/32	. . Polishing; Etching	3/08	. by applying steady tensile or compressive forces (G01N 3/28 takes precedence)
1/34	. . Purifying; Cleaning {(processes or apparatus for extracting or separating nucleic acids from biological samples C12N 15/1003)}	3/10	. . generated by pneumatic or hydraulic pressure (G01N 3/18 takes precedence)
1/36	. . Embedding or analogous mounting of samples	3/12	. . . Pressure testing (testing fluid-tightness G01M 3/00)
2001/362	. . . {using continuous plastic film to mount sample}	3/14	. . generated by dead weight, e.g. pendulum; generated by springs tension (G01N 3/18 takes precedence)
2001/364	. . . {using resins, epoxy}	3/16	. . applied through gearing (G01N 3/18 takes precedence)
2001/366	. . . {Moulds; Demoulding}	3/165	. . . {generated by rotation, i.e. centrifugal force (for testing structures or apparatus G01M 99/004)}
2001/368	. . . {Mounting multiple samples in one block, e.g. TMA [Tissue Microarrays]}	3/18	. . Performing tests at high or low temperatures
1/38	. . Diluting, dispersing or mixing samples	3/20	. by applying steady bending forces (G01N 3/26 , G01N 3/28 take precedence)
2001/381	. . . {by membrane diffusion; Permeation tubes}	3/22	. by applying steady torsional forces (G01N 3/26 , G01N 3/28 take precedence)
2001/382	. . . {using pistons of different sections}	3/24	. by applying steady shearing forces (G01N 3/26 , G01N 3/28 take precedence)
2001/383	. . . {collecting and diluting in a flow of liquid}	3/26	. Investigating twisting or coiling properties
2001/385	. . . {diluting by adsorbing a fraction of the sample}	3/28	. Investigating ductility, e.g. suitability of sheet metal for deep-drawing or spinning
2001/386	. . . {Other diluting or mixing processes}	3/30	. by applying a single impulsive force, e.g. by falling weight
2001/387	. . . . {mixing by blowing a gas, bubbling}	3/303	. . generated only by free-falling weight
2001/388	. . . . {mixing the sample with a tracer}	3/307	. . generated by a compressed or tensile-stressed spring; generated by pneumatic or hydraulic means
1/40	. . Concentrating samples	3/31	. . generated by a rotating fly-wheel
1/4005	. . . {by transferring a selected component through a membrane}	3/313	. . generated by explosives
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}		

- 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)	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
11/00	Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties	15/00	Investigating characteristics of particles; Investigating permeability, pore-volume, or surface-area of porous materials (identification of microorganisms C12Q)
2011/0006	. {Calibrating, controlling or cleaning viscometers}	2015/0003	. {Determining electric mobility, velocity profile, average speed or velocity of a plurality of particles}
2011/0013	. . {Temperature compensation}	2015/0007	. {Investigating dispersion of gas}
2011/002	. . {Controlling sample temperature; Thermal cycling during measurement}	2015/0011	. . {in liquids, e.g. bubbles}
2011/0026	. {Investigating specific flow properties of non-Newtonian fluids}	2015/0015	. . {in solids}
2011/0033	. . {Yield stress; Residual stress at zero shear rate}	2015/0019	. {Means for transferring or separating particles prior to analysis, e.g. hoppers or particle conveyors}
2011/004	. . {Stress relaxation time}	2015/0023	. {Investigating dispersion of liquids}
2011/0046	. {In situ measurement during mixing process}	2015/0026	. . {in gas, e.g. fog}
2011/0053	. . {using ergometry; measuring power consumption}	2015/003	. . {in liquids, e.g. emulsion}
2011/006	. {Determining flow properties indirectly by measuring other parameters of the system}	2015/0034	. . {in solids}
2011/0066	. . {electrical properties}	2015/0038	. {Investigating nanoparticles}
2011/0073	. . {acoustic properties}	2015/0042	. {Investigating dispersion of solids}
2011/008	. . {optical properties}	2015/0046	. . {in gas, e.g. smoke}
2011/0086	. . {magnetic properties}	2015/0049	. . . {of filaments in gas}
2011/0093	. . {thermal properties}	2015/0053	. . {in liquids, e.g. trouble}
11/02	. by measuring flow of the material	2015/0057	. . . {of filaments in liquids}
11/04	. . through a restricted passage, e.g. tube, aperture	2015/0061	. . {in solids, e.g. petrography}
11/06	. . . by timing the outflow of a known quantity	2015/0065	. {biological, e.g. blood}
11/08	. . . by measuring pressure required to produce a known flow	2015/0069	. . {with lysing, e.g. of erythrocyts}
11/10	. by moving a body within the material	2015/0073	. . {Red blood cells}
11/105	. . {by detecting the balance position of a float moving in a duct conveying the fluid under test}	2015/0076	. . . {Reticulocytes}
11/12	. . by measuring rising or falling speed of the body; by measuring penetration of wedged gauges (G01N 11/16 takes precedence)	2015/008	. . {White cells}
11/14	. . by using rotary bodies, e.g. vane (G01N 11/16 takes precedence)	2015/0084	. . {Platelets}
11/142	. . . {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}	2015/0088	. . {Biological contaminants; Fouling}
2011/145	. . . . {both members rotating}	2015/0092	. {Monitoring flocculation or agglomeration}
2011/147	. . . {Magnetic coupling}	2015/0096	. {Investigating consistence of powders, dustability, dustiness}
11/16	. . by measuring damping effect upon oscillatory body	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)
11/162	. . . {Oscillations being torsional, e.g. produced by rotating bodies}	15/0205	. . {by optical means, e.g. by light scattering, diffraction, holography or imaging}
11/165	. . . . {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}	15/0211	. . . {Investigating a scatter or diffraction pattern}
11/167	. . . . {Sample holder oscillates, e.g. rotating crucible}	2015/0216	. . . . {from fluctuations of diffraction pattern}
		2015/0222	. . . . {from dynamic light scattering, e.g. photon correlation spectroscopy}
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)	15/0227	. . . {using imaging, e.g. a projected image of suspension; using holography}
2013/003	. {Diffusion; diffusivity between liquids}	2015/0233	. . . {using holography}
2013/006	. {Dissolution of tablets or the like}	2015/0238	. . . {Single particle scatter}
13/02	. Investigating surface tension of liquids	2015/0244	. . . {with cutting-out molecular scatter}
2013/0208	. . {by measuring contact angle}	2015/025	. . . {Methods for single or grouped particles}
2013/0216	. . {by measuring skin friction or shear force}	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 15/1495](#))}
 - 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 15/1486](#))}
 - 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 sheaths 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}
- 2015/1465 {image analysis on colour image}
- 15/1468 . . . {with spatial resolution of the texture or inner structure of the particle}
- 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

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](#)

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](#)

19/08	• Detecting presence of flaws or irregularities (measuring roughness or irregularity of surfaces G01B 5/28)	21/0332	• • • {with temperature control (control of temperature G05D 23/00 ; cryostats F17C 3/08)}
19/10	• Measuring moisture content, e.g. by measuring change in length of hygroscopic filament; Hygrometers	2021/0335	• • • • {Refrigeration of cells; Cold stages}
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 <u>does not cover</u> the investigation of spectral properties of light <u>per se</u> , 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 .	2021/0339	• • • • {Holders for solids, powders}
21/01	• Arrangements or apparatus for facilitating the optical investigation	2021/0342	• • • • {Solid sample being immersed, e.g. equiindex fluid}
2021/0106	• • {General arrangement of respective parts}	2021/0346	• • • • {Capillary cells; Microcells}
2021/0112	• • • {Apparatus in one mechanical, optical or electronic block}	2021/035	• • • • • {Supports for sample drops}
2021/0118	• • • • {Apparatus with remote processing}	2021/0353	• • • • • {Conveyor of successive sample drops}
2021/0125	• • • • • {with stored program or instructions}	2021/0357	• • • • {Sets of cuvettes}
2021/0131	• • • • • {being externally stored}	2021/036	• • • • {transformable, modifiable}
2021/0137	• • • • • {with PC or the like}	2021/0364	• • • • {flexible, compressible}
2021/0143	• • • • • {with internal and external computer}	2021/0367	• • • • {Supports of cells, e.g. pivotable}
2021/015	• • • {Apparatus with interchangeable optical heads or interchangeable block of optics and detector}	2021/0371	• • • • • {Supports combined with sample intake}
2021/0156	• • • • • {with optics only in separate head, e.g. connection by optical fibres}	2021/0375	• • • • • {Slidable cells}
2021/0162	• • {using microprocessors for control of a sequence of operations, e.g. test, powering, switching, processing}	2021/0378	• • • • {Shapes}
2021/0168	• • • {for the measurement cycle}	2021/0382	• • • • • {Frustoconical, tapered cell}
2021/0175	• • • {for selecting operating means}	2021/0385	• • • • {Diffusing membrane; Semipermeable membrane}
2021/0181	• • {Memory or computer-assisted visual determination}	2021/0389	• • • • {Windows}
2021/0187	• • {Mechanical sequence of operations}	2021/0392	• • • • • {Nonplanar windows}
2021/0193	• • {the sample being taken from a stream or flow to the measurement cell}	2021/0396	• • • • • {Oblique incidence}
21/03	• • Cuvette constructions	21/05	• • • • Flow-through cuvettes (G01N 21/09 takes precedence; handling fluid samples G01N 1/10)
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)}	2021/052	• • • • • {Tubular type; cavity type; multireflective}
2021/0307	• • • • • {Insert part in cell}	2021/054	• • • • • {Bubble trap; Debubbling}
21/031	• • • {Multipass arrangements}	2021/056	• • • • • {Laminated construction}
2021/0314	• • • • • {Double pass, autocollimated path}	2021/058	• • • • • {Flat flow cell}
21/0317	• • • {High pressure cuvettes; (G01N 21/0332 - G01N 21/15 take precedence)}	21/07	• • • • Centrifugal type cuvettes (G01N 21/09 takes precedence; centrifuges <u>per se</u> B04B)
2021/0321	• • • • {One time use cells, e.g. integrally moulded}	21/09	• • • • adapted to resist hostile environments or corrosive or abrasive materials
2021/0325	• • • • {Cells for testing reactions, e.g. containing reagents}	21/11	• • • • Filling or emptying of cuvettes
2021/0328	• • • • • {Arrangement of two or more cells having different functions for the measurement of reactions}	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}	21/211	. . . {Ellipsometry (optical thickness measurement G01B 11/06)}
2021/1712	. . . {Thermal lens, mirage effect}	2021/212	. . . . {Arrangement with total internal reflection}
2021/1714	. . . {Photothermal radiometry with measurement of emission}	2021/213	. . . . {Spectrometric ellipsometry}
21/1717	. . {with a modulation of one or more physical properties of the sample during the optical investigation, e.g. electro-reflectance}	2021/214	. . . . {Variance incidence arrangement}
2021/1719	. . . {Carrier modulation in semiconductors}	2021/215	. . . . {Brewster incidence arrangement}
2021/1721	. . . {Electromodulation}	2021/216	. . . {using circular polarised light}
2021/1723	. . . {Fluid modulation}	2021/217	. . . {Measuring depolarisation or comparing polarised and depolarised parts of light}
2021/1725	. . . {Modulation of properties by light, e.g. photorefectance}	2021/218	. . . {Measuring properties of electrooptical or magneto-optical media}
2021/1727	. . . {Magnetomodulation}	21/23	. . . Bi-refrignence
2021/1729	. . . {Piezomodulation}	21/25	. . Colour; Spectral properties, i.e. comparison of effect of material on the light at two or more different wavelengths or wavelength bands
2021/1731	. . . {Temperature modulation}	21/251	. . . {Colorimeters; Construction thereof}
2021/1734	. . {Sequential different kinds of measurements; Combining two or more methods}	21/253	. . . . {for batch operation, i.e. multisample apparatus (analytical automats G01N 35/00)}
2021/1736	. . . {with two or more light sources}	21/255	. . . {Details, e.g. use of specially adapted sources, lighting or optical systems}
2021/1738	. . {Optionally different kinds of measurements; Method being valid for different kinds of measurement}	21/256	. . . {Arrangements using two alternating lights and one detector}
2021/174	. . . {either absorption-reflection or emission-fluorescence}	2021/258	. . . {Surface plasmon spectroscopy, e.g. micro- or nanoparticles in suspension}
2021/1742	. . . {either absorption or reflection}	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)}
2021/1744	. . . {either absorption or scatter}	21/272	. . . . {for following a reaction, e.g. for determining photometrically a reaction rate (photometric kinetic analysis)}
2021/1746	. . {Method using tracers}	21/274	. . . . {Calibration, base line adjustment, drift correction}
2021/1748	. . {Comparative step being essential in the method}	21/276	. . . . . {with alternation of sample and standard in optical path}
2021/1751	. . . {Constructive features therefore, e.g. using two measurement cells}	21/278	. . . . . {Constitution of standards}
2021/1753	. . . . {and using two light sources}	21/29	. . . using visual detection (G01N 21/31 takes precedence)
2021/1755	. . . . {and using two apparatus or two probes}	21/293	. . . . {with colour charts, graduated scales or turrets}
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)}	2021/296	. . . . {Visually measuring scintillation effect}
2021/1759	. . . {Jittering, dithering, optical path modulation}	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)}
2021/1761	. . {A physical transformation being implied in the method, e.g. a phase change}	21/3103	. . . . {Atomic absorption analysis}
2021/1763	. . . {Gas to liquid phase change}	2021/3107	. . . . . {Cold vapor, e.g. determination of Hg}
2021/1765	. . {Method using an image detector and processing of image signal}	2021/3111	. . . . . {using Zeeman split}
2021/1768	. . . {using photographic film}	2021/3114	. . . . . {Multi-element AAS arrangements}
2021/177	. . . {Detector of the video camera type}	2021/3118	. . . . . {Commutating sources, e.g. line source/ broad source, chopping for comparison of broad/narrow regimes}
2021/1772	. . . . {Array detector}	2021/3122	. . . . . {using a broad source with a monochromator}
2021/1774	. . . . . {Line array detector}	2021/3125	. . . . . {Measuring the absorption by excited molecules}
2021/1776	. . . . . {Colour camera}	2021/3129	. . . . . {Determining multicomponents by multiwavelength light}
2021/1778	. . . . {IIT [intensified image tube]}	2021/3133	. . . . . {with selection of wavelengths before the sample}
2021/178	. . {Methods for obtaining spatial resolution of the property being measured}	2021/3137	. . . . . {with selection of wavelengths after the sample}
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)		

21/314	. . . . .	{with comparison of measurements at specific and non-specific wavelengths (dual wavelength spectrometry G01J 3/427)}	21/3577	. . . . .	for analysing liquids, e.g. polluted water
2021/3144	. . . . .	{for oxymetry}	21/3581	. . . . .	using far infra-red light; using Terahertz radiation
2021/3148	. . . . .	{using three or more wavelengths}	21/3586	. . . . .	by Terahertz time domain spectroscopy [THz-TDS]
21/3151	. . . . .	{using two sources of radiation of different wavelengths (G01N 21/33 - G01N 21/39 take precedence)}	21/359	. . . . .	using near infra-red light
2021/3155	. . . . .	{Measuring in two spectral ranges, e.g. UV and visible}	2021/3595	. . . . .	{using FTIR}
2021/3159	. . . . .	{Special features of multiplexing circuits}	21/37	. . . . .	using pneumatic detection {(opto-acoustic detection G01N 21/1702)}
2021/3162	. . . . .	{with offset adjustment between filters}	21/39	. . . . .	using tunable lasers
2021/3166	. . . . .	{using separate detectors and filters}	2021/391	. . . . .	{Intracavity sample}
2021/317	. . . . .	{Special constructive features}	2021/392	. . . . .	{Measuring reradiation, e.g. fluorescence, backscatter}
2021/3174	. . . . .	{Filter wheel}	2021/393	. . . . .	{and using a spectral variation of the interaction of the laser beam and the sample}
2021/3177	. . . . .	{Use of spatially separated filters in simultaneous way}	2021/394	. . . . .	{DIAL method}
2021/3181	. . . . .	{using LEDs}	2021/395	. . . . .	{using a topographic target}
2021/3185	. . . . .	{typically monochromatic or band-limited}	2021/396	. . . . .	{Type of laser source}
2021/3188	. . . . .	{band-limited}	2021/397	. . . . .	{Dye laser}
2021/3192	. . . . .	{Absorption edge variation is measured}	2021/398	. . . . .	{CO ₂ laser}
2021/3196	. . . . .	{Correlating located peaks in spectrum with reference data, e.g. fingerprint data}	2021/399	. . . . .	{Diode laser}
21/33	. . . . .	using ultra-violet light (G01N 21/39 takes precedence)	21/41	. .	Refractivity; Phase-affecting properties, e.g. optical path length (G01N 21/21 takes precedence)
2021/335	. . . . .	{Vacuum UV}	2021/4106	. . . .	{Atmospheric distortion; Turbulence}
21/35	. . . . .	using infra-red light (G01N 21/39 takes precedence)	2021/4113	. . . .	{Atmospheric dispersion}
21/3504	. . . . .	for analysing gases, e.g. multi-gas analysis	21/412	. . . .	{Index profiling of optical fibres}
2021/3509	. . . . .	{Correlation method, e.g. one beam alternating in correlator/sample field}	2021/4126	. . . .	{Index of thin films}
2021/3513	. . . . .	{Open path with an instrumental source}	21/4133	. . . .	{Refractometers, e.g. differential}
21/3518	. . . . .	Devices using gas filter correlation techniques; Devices using gas pressure modulation techniques	2021/414	. . . .	{Correcting temperature effect in refractometers}
NOTE			2021/4146	. . . .	{Differential cell arrangements}
This group also <u>covers</u> devices without instrumental sources, e.g. radiometric-type devices using ambient infra-red light.			2021/4153	. . . .	{Measuring the deflection of light in refractometers}
2021/3522	. . . . .	{balancing by two filters on two detectors}	2021/416	. . . .	{Visualising flow by index measurement}
2021/3527	. . . . .	{and using one filter cell as attenuator}	2021/4166	. . . .	{Methods effecting a waveguide mode enhancement through the property being measured}
2021/3531	. . . . .	{without instrumental source, i.e. radiometric}	2021/4173	. . . .	{Phase distribution}
2021/3536	. . . . .	{using modulation of pressure or density}	2021/418	. . . .	{Frequency/phase diagrams}
2021/354	. . . . .	{Hygrometry of gases}	2021/4186	. . . .	{Phase modulation imaging}
2021/3545	. . . . .	{Disposition for compensating effect of interfering gases}	2021/4193	. . . .	{using a PSD}
2021/355	. . . . .	{by using a third optical path, e.g. interference cuvette}	21/43	. . . .	by measuring critical angle
21/3554	. . . . .	for determining moisture content	21/431	. . . .	{Dip refractometers, e.g. using optical fibres}
21/3559	. . . . .	in sheets, e.g. in paper	2021/432	. . . . .	{comprising optical fibres}
21/3563	. . . . .	for analysing solids; Preparation of samples therefor	2021/433	. . . . .	{with an unclad part on the fibre}
2021/3568	. . . . .	{applied to semiconductors, e.g. Silicon}	2021/434	. . . .	{Dipping block in contact with sample, e.g. prism}
2021/3572	. . . . .	{Preparation of samples, e.g. salt matrices}	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}	21/49	. . . . within a body or fluid
21/47	. . Scattering, i.e. diffuse reflection (G01N 21/25 , G01N 21/41 take precedence { G01N 21/55 takes precedence})	2021/495	. . . . {the fluid being adsorbed, e.g. in porous medium}
2021/4702	. . . . {Global scatter; Total scatter, excluding reflections}	21/51	. . . . inside a container, e.g. in an ampoule (G01N 21/53 takes precedence; checking containers for cleanliness B08B 9/46)
2021/4704	. . . . {Angular selective}	2021/513	. . . . . {Cuvettes for scattering measurements}
2021/4707	. . . . . {Forward scatter; Low angle scatter}	2021/516	. . . . . {Multiple excitation of scattering medium, e.g. by retro-reflected or multiply reflected excitation rays}
2021/4709	. . . . . {Backscatter}	21/53	. . . . . within a flowing fluid, e.g. smoke (alarm devices actuated by smoke G08B 17/10)
2021/4711	. . . . . {Multiangle measurement}	21/532	. . . . . {with measurement of scattering and transmission}
2021/4714	. . . . . {Continuous plural angles}	21/534	. . . . . {by measuring transmission alone, i.e. determining opacity}
2021/4716	. . . . . {Using a ring of sensors, or a combination of diaphragm and sensors; Annular sensor}	2021/536	. . . . . {Measurement device mounted at stack}
2021/4719	. . . . . {using a optical fibre array}	21/538	. . . . . {for determining atmospheric attenuation and visibility}
2021/4721	. . . . . {using a PSD}	21/55	. . Specular reflectivity
2021/4723	. . . . . {Scanning scatter angles}	2021/551	. . . . {Retroreflectance}
2021/4726	. . . . . {Detecting scatter at 90°}	21/552	. . . . Attenuated total reflection
2021/4728	. . . . . {Optical definition of scattering volume}	21/553	. . . . . {and using surface plasmons (fluorescence excitation G01N 21/648 ; enhanced Raman G01N 21/658)}
2021/473	. . . . {Compensating for unwanted scatter, e.g. reliefs, marks}	21/554	. . . . . {detecting the surface plasmon resonance of nanostructured metals, e.g. localised surface plasmon resonance}
2021/4733	. . . . {Discriminating different types of scatterers}	2021/555	. . . . {Measuring total reflection power, i.e. scattering and specular}
2021/4735	. . . . {Solid samples, e.g. paper, glass}	2021/556	. . . . {Measuring separately scattering and specular}
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}	2021/557	. . . . {Detecting specular reflective parts on sample}
21/474	. . . . . {Details of optical heads therefor, e.g. using optical fibres}	2021/558	. . . . {Measuring reflectivity and transmission}
2021/4742	. . . . . {comprising optical fibres}	2021/559	. . . . {Determining variation of specular reflection within diffusively reflecting sample}
2021/4745	. . . . . {Fused bundle, i.e. for backscatter}	21/57	. . . . Measuring gloss
2021/4747	. . . . . {Concentric bundles}	2021/575	. . . . . {Photogoniometering}
2021/475	. . . . . {Bifurcated bundle}	21/59	. . Transmissivity (G01N 21/25 takes precedence)
2021/4752	. . . . . {Geometry}	2021/5903	. . . . {using surface plasmon resonance [SPR], e.g. extraordinary optical transmission [EOT]}
2021/4754	. . . . . {Diffuse illumination}	21/5907	. . . . {Densitometers}
2021/4757	. . . . . {Geometry 0/45° or 45/0°}	21/5911	. . . . . {of the scanning type (scanning per se G02B)}
2021/4759	. . . . . {Annular illumination}	2021/5915	. . . . . {Processing scan data in densitometry}
2021/4761	. . . . . {Mirror arrangements, e.g. in IR range}	2021/5919	. . . . . {Determining total density of a zone}
2021/4764	. . . . . {Special kinds of physical applications}	2021/5923	. . . . . {Determining zones of density; quantitating spots}
2021/4766	. . . . . {Sample containing fluorescent brighteners}	2021/5926	. . . . . {Isodensitometers}
2021/4769	. . . . . {Fluid samples, e.g. slurries, granulates; Compressible powdery of fibrous samples}	2021/593	. . . . . {Correcting from the background density}
2021/4771	. . . . . {Matte surfaces with reflecting particles}	2021/5934	. . . . . {Averaging on a zone}
2021/4773	. . . . . {Partly or totally translucent samples}	2021/5938	. . . . . {Features of monitor, display}
2021/4776	. . . . . {Miscellaneous in diffuse reflection devices}	2021/5942	. . . . . {for dot area ratio in printing applications}
2021/4778	. . . . . {Correcting variations in front distance}	2021/5946	. . . . . {for binary signal}
2021/478	. . . . . {Application in testing analytical test strips}	2021/5949	. . . . . {Correcting nonlinearity of signal, e.g. in measurement of photomedium}
2021/4783	. . . . . {Examining under varying incidence; Angularly adjustable head}	2021/5953	. . . . . {for detecting a spatial spectrum}
21/4785	. . . . {Standardising light scatter apparatus; Standards therefor}	2021/5957	. . . . . {using an image detector type detector, e.g. CCD}
21/4788	. . . . {Diffraction (for sizing particles G01N 15/0205)}	2021/5961	. . . . . {using arrays of sources and detectors}
2021/479	. . . . . {Speckle}	2021/5965	. . . . . {using selected detectors in an array}
2021/4792	. . . . {Polarisation of scatter light}	2021/5969	. . . . . {Scanning of a tube, a cuvette, a volume of sample}
21/4795	. . . . {spatially resolved investigating of object in scattering medium (in vivo A61B)}	2021/5973	. . . . . {where the cuvette or tube is moved}
2021/4797	. . . . . {time resolved, e.g. analysis of ballistic photons}		

2021/5976	. . . .	{Image projected and scanning projected image}	21/645	. . . .	{Specially adapted constructive features of fluorimeters}
2021/598	. . . .	{Features of mounting, adjusting}	21/6452	. . . . .	{Individual samples arranged in a regular 2D-array, e.g. multiwell plates}
2021/5984	. . . . .	{height adjustable}	21/6454	. . . . .	{using an integrated detector array}
2021/5988	. . . . .	{Fluid mounting or the like, e.g. vortex}	21/6456	. . . . .	{Spatial resolved fluorescence measurements; Imaging}
2021/5992	. . . . .	{Double pass}	21/6458	. . . . .	{Fluorescence microscopy (fluorescence microscopes per se G02B 21/0076 and G02B 21/16)}
2021/5996	. . . . .	{Positioning the head}	2021/646	. . . . .	{Detecting fluorescent inhomogeneities at a position, e.g. for detecting defects}
21/61	. . .	Non-dispersive gas analysers {(G01N 21/3504 takes precedence)}	2021/6463	. . . . .	{Optics}
21/62	. . .	Systems in which the material investigated is excited whereby it emits light or causes a change in wavelength of the incident light	2021/6465	. . . . .	{Angular discrimination}
2021/625	. . .	{Excitation by energised particles such as metastable molecules}	2021/6467	. . . . .	{Axial flow and illumination}
21/63	. . .	optically excited	2021/6469	. . . . .	{Cavity, e.g. ellipsoid}
21/631	. . .	{using photolysis and investigating photolysed fragments}	2021/6471	. . . . .	{Special filters, filter wheel}
2021/632	. . . .	{Predissociation, e.g. for fluorescence of transient excited radicals}	2021/6473	. . . . .	{In-line geometry}
2021/633	. . .	{Photoinduced grating used for analysis}	2021/6476	. . . . .	{Front end, i.e. backscatter, geometry}
2021/634	. . .	{Photochromic material analysis}	2021/6478	. . . . .	{Special lenses}
2021/635	. . .	{Photosynthetic material analysis, e.g. chlorophyll}	21/648	. . . . .	{using evanescent coupling or surface plasmon coupling for the excitation of fluorescence}
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)}	2021/6482	. . . . .	{Sample cells, cuvettes}
2021/637	. . . . .	{Lasing effect used for analysis}	2021/6484	. . . . .	{Optical fibres}
2021/638	. . . . .	{Brillouin effect, e.g. stimulated Brillouin effect}	21/6486	. . . . .	{Measuring fluorescence of biological material, e.g. DNA, RNA, cells (G01N 21/6428 takes precedence)}
21/64	. . .	Fluorescence; Phosphorescence	21/6489	. . . . .	{Photoluminescence of semiconductors}
21/6402	. . . . .	{Atomic fluorescence; Laser induced fluorescence}	2021/6491	. . . . .	{Measuring fluorescence and transmission; Correcting inner filter effect}
21/6404	. . . . .	{Atomic fluorescence}	2021/6493	. . . . .	{by alternating fluorescence/transmission or fluorescence/reflection}
2021/6406	. . . . .	{multi-element}	2021/6495	. . . . .	{Miscellaneous methods}
21/6408	. . . . .	{with measurement of decay time, time resolved fluorescence}	2021/6497	. . . . .	{Miscellaneous applications}
2021/641	. . . . .	{Phosphorimetry, gated}	21/65	. . .	Raman scattering
2021/6413	. . . . .	{Distinction short and delayed fluorescence or phosphorescence}	2021/651	. . . . .	{Cuvettes therefore}
2021/6415	. . . . .	{with two excitations, e.g. strong pump/probe flash}	2021/653	. . . . .	{Coherent methods [CARS]}
2021/6417	. . . . .	{Spectrofluorimetric devices}	2021/655	. . . . .	{Stimulated Raman}
2021/6419	. . . . .	{Excitation at two or more wavelengths}	2021/656	. . . . .	{Raman microprobe}
2021/6421	. . . . .	{Measuring at two or more wavelengths}	21/658	. . . . .	{enhancement Raman, e.g. surface plasmons}
2021/6423	. . . . .	{Spectral mapping, video display}	21/66	. . .	electrically excited, e.g. electroluminescence
2021/6426	. . . . .	{Determining Fraunhofer lines}	21/67	. . .	using electric arcs or discharges (spark gaps per se H01T)
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)}	21/68	. . .	using high frequency electric fields
21/643	. . . . .	{non-biological material}	21/69	. . .	specially adapted for fluids {, e.g. molten metal}
2021/6432	. . . . .	{Quenching}	2021/695	. . . . .	{Molten metals}
2021/6434	. . . . .	{Optrodes}	21/70	. . .	mechanically excited, e.g. triboluminescence
2021/6436	. . . . .	{for analysing tapes}	21/71	. . .	thermally excited
2021/6439	. . . . .	{with indicators, stains, dyes, tags, labels, marks}	2021/712	. . .	{using formation of volatile hydride}
2021/6441	. . . . .	{with two or more labels}	21/714	. . .	{Sample nebulisers for flame burners or plasma burners (nebulizers per se B05B)}
2021/6443	. . . . .	{Fluorimetric titration}	21/716	. . .	{by measuring the radiation emitted by a test object treated by combustion gases for investigating the composition of gas mixtures}
21/6445	. . . . .	{Measuring fluorescence polarisation}	21/718	. . .	{Laser microanalysis, i.e. with formation of sample plasma}
21/6447	. . . . .	{by visual observation}	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 . . . {Multilayers}
- 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 {Immersed 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)}	2021/8883	. . . .	{involving the calculation of gauges, generating models}
2021/8672	. . . .	{Paper formation parameter}	2021/8887	. . . .	{based on image processing techniques}
2021/8681	. . . .	{Paper fibre orientation}	2021/889	. . . .	{providing a bare video image, i.e. without visual measurement aids}
2021/869	. . . .	{Plastics or polymeric material, e.g. polymers orientation in plastic, adhesive imprinted band}	2021/8893	. . . .	{providing a video image and a processed signal for helping visual decision}
21/87	. .	Investigating jewels (G01N 21/88 takes precedence)	2021/8896	. . . .	{Circuits specially adapted for system specific signal conditioning}
21/88	. .	Investigating the presence of flaws or contamination	21/89	. . .	in moving material, e.g. running paper or textiles (G01N 21/90 , G01N 21/91 , G01N 21/94 take precedence)
21/8803	. . .	{Visual inspection (measuring projectors G01B 9/08)}	21/8901	. . . .	{Optical details; Scanning details (per se G02B)}
21/8806	. . .	{Specially adapted optical and illumination features}	2021/8902	. . . .	{Anamorphic spot}
2021/8809	. . . .	{Adjustment for highlighting flaws}	21/8903	. . . .	{using a multiple detector array}
2021/8812	. . . .	{Diffuse illumination, e.g. "sky"}	2021/8904	. . . .	{Sheetwide light conductor on detecting side, e.g. fluorescing light rod}
2021/8816	. . . .	{by using multiple sources, e.g. LEDs}	2021/8905	. . . .	{Directional selective optics, e.g. slits, spatial filters}
2021/8819	. . . .	{by using retroreflecting screen}	2021/8907	. . . .	{Cylindrical optics}
2021/8822	. . . .	{Dark field detection}	2021/8908	. . . .	{Strip illuminator, e.g. light tube}
2021/8825	. . . .	{Separate detection of dark field and bright field}	2021/8909	. . . .	{Scan signal processing specially adapted for inspection of running sheets}
2021/8829	. . . .	{Shadow projection or structured background, e.g. for deflectometry (three-dimensional metrology of surfaces G01B 11/25)}	2021/891	. . . .	{Edge discrimination, e.g. by signal filtering}
2021/8832	. . . .	{Structured background, e.g. for transparent objects}	2021/8911	. . . .	{Setting scan-width signals}
2021/8835	. . . .	{Adjustable illumination, e.g. software adjustable screen}	2021/8912	. . . .	{Processing using lane subdivision}
2021/8838	. . . .	{Stroboscopic illumination; synchronised illumination}	21/8914	. . . .	{characterised by the material examined}
2021/8841	. . . .	{Illumination and detection on two sides of object}	21/8915	. . . .	{non-woven textile material}
2021/8845	. . . .	{Multiple wavelengths of illumination or detection}	21/8916	. . . .	{for testing photographic material}
2021/8848	. . . .	{Polarisation of light}	2021/8917	. . . .	{Paper, also undulated}
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)}	2021/8918	. . . .	{Metal}
2021/8854	. . . .	{Grading and classifying of flaws}	21/892	. . . .	characterised by the flaw, defect or object feature examined
2021/8858	. . . .	{Flaw counting}	21/8921	. . . .	{Streaks}
2021/8861	. . . .	{Determining coordinates of flaws}	21/8922	. . . .	{Periodic flaws}
2021/8864	. . . .	{Mapping zones of defects}	2021/8924	. . . .	{Dents; Relief flaws}
2021/8867	. . . .	{using sequentially two or more inspection runs, e.g. coarse and fine, or detecting then analysing}	2021/8925	. . . .	{Inclusions}
2021/887	. . . .	{the measurements made in two or more directions, angles, positions}	2021/8927	. . . .	{Defects in a structured web}
2021/8874	. . . .	{Taking dimensions of defect into account}	2021/8928	. . . .	{Haze defects, i.e. with a part of diffracted light}
2021/8877	. . . .	{Proximity analysis, local statistics}	21/894	. . . .	Pinholes
2021/888	. . . .	{Marking defects}	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}	21/956	. . . .	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 })
21/9018	. . . .	{Dirt detection in containers}	21/95607	. . . . .	{using a comparative method}
21/9027	. . . . .	{in containers after filling}	2021/95615	. . . . .	{with stored comparison signal}
21/9036	. . . . .	{using arrays of emitters or receivers}	21/95623	. . . . .	{using a spatial filtering method (per se G02B)}
21/9045	. . . . .	{Inspection of ornamented or stippled container walls}	2021/9563	. . . . .	{and suppressing pattern images}
21/9054	. . . . .	{Inspection of sealing surface and container finish}	2021/95638	. . . . .	{for PCB's}
2021/9063	. . . . .	{Hot-end container inspection}	2021/95646	. . . . .	{Soldering}
21/9072	. . . . .	{with illumination or detection from inside the container}	2021/95653	. . . . .	{Through-holes}
21/9081	. . . . .	{Inspection especially designed for plastic containers, e.g. preforms}	2021/95661	. . . . .	{for leads, e.g. position, curvature}
21/909	. . . . .	{in opaque containers or opaque container parts, e.g. cans, tins, caps, labels}	2021/95669	. . . . .	{for solder coating, coverage}
21/91	. . . .	using penetration of dyes, e.g. fluorescent ink	2021/95676	. . . . .	{Masks, reticles, shadow masks}
21/93	. . . .	Detection standards; Calibrating {baseline adjustment, drift correction}	21/95684	. . . . .	{Patterns showing highly reflecting parts, e.g. metallic elements}
2021/933	. . . . .	{Adjusting baseline or gain (also for web inspection)}	21/95692	. . . . .	{Patterns showing hole parts, e.g. honeycomb filtering structures}
2021/936	. . . . .	{Adjusting threshold, e.g. by way of moving average}	21/958	. . . . .	Inspecting transparent materials {or objects, e.g. windscreens (for conveyed flat sheet or rod G01N 21/896)}
21/94	. . . .	Investigating contamination, e.g. dust (G01N 21/85 takes precedence)	2021/9583	. . . . .	{Lenses}
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)}	2021/9586	. . . . .	{Windscreens}
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)	22/00		Investigating or analysing materials by the use of microwaves (G01N 3/00 - G01N 17/00, G01N 24/00 take precedence)
21/9501	. . . . .	{Semiconductor wafers (manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10)}	22/005	. . . . .	{and using Stark effect modulation}
21/9503	. . . . .	{Wafer edge inspection}	22/02	. . . . .	Investigating the presence of flaws
21/9505	. . . . .	{Wafer internal defects, e.g. microcracks}	22/04	. . . . .	Investigating moisture content
21/9506	. . . . .	{Optical discs}	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
21/9508	. . . . .	{Capsules; Tablets}	23/005	. . . . .	{by using neutrons (G01N 23/02 - G01N 23/227 take precedence)}
21/951	. . . . .	{Balls}	23/02	. . . . .	by transmitting the radiation through the material
2021/9511	. . . . .	{Optical elements other than lenses, e.g. mirrors (testing of optical apparatus in G01M 11/00)}	23/025	. . . . .	{using neutrons}
2021/9513	. . . . .	{Liquid crystal panels}	23/04	. . . . .	and forming images of the material
21/9515	. . . . .	{Objects of complex shape, e.g. examined with use of a surface follower device (measuring contours and curvatures G01B 11/24)}	WARNING		
2021/9516	. . . . .	{whereby geometrical features are being masked}			Group G01N 23/04 is impacted by reclassification into groups G01N 23/041 and G01N 23/044 .
2021/9518	. . . . .	{using a surface follower, e.g. robot}			Groups G01N 23/04 , G01N 23/041 , and G01N 23/044 should be considered in order to perform a complete search.
21/952	. . . . .	Inspecting the exterior surface of cylindrical bodies or wires (G01N 21/956 takes precedence)	23/041	. . . .	Phase-contrast imaging, e.g. using grating interferometers
21/954	. . . . .	Inspecting the inner surface of hollow bodies, e.g. bores	WARNING		
2021/9542	. . . . .	{using a probe}			Group G01N 23/041 is incomplete pending reclassification of documents from groups G01N 23/04 and G01N 23/043 .
2021/9544	. . . . .	{with emitter and receiver on the probe}			Groups G01N 23/04 , G01N 23/043 , and G01N 23/041 should be considered in order to perform a complete search.
2021/9546	. . . . .	{with remote light transmitting, e.g. optical fibres}			
2021/9548	. . . . .	{Scanning the interior of a cylinder}			

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

30/60	. . . Construction of the 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)}
30/6004	. . . {end pieces}	30/724	. . . . {Nebulising, aerosol formation or ionisation (spraying or atomising in general B05B)}
2030/6008	. . . . {capillary restrictors}	30/7246	. . . . . {by pneumatic means}
2030/6013	. . . . {interfaces to detectors}	30/7253	. . . . . {by thermal means, e.g. thermospray}
30/6017	. . . . {Fluid distributors}	30/726	. . . . . {by electrical or glow discharge}
30/6021	. . . . {Adjustable pistons}	30/7266	. . . . . {by electric field, e.g. electrospray}
30/6026	. . . . {Fluid seals}	30/7273	. . . . . {Desolvation chambers}
30/603	. . . . {retaining the stationary phase, e.g. Frits}	30/728	. . . . {Intermediate storage of effluent, including condensation on surface}
30/6034	. . . {joining multiple columns}	30/7286	. . . . . {the store moving as a whole, e.g. moving wire}
30/6039	. . . . {in series}	30/7293	. . . . {Velocity or momentum separators}
30/6043	. . . . {in parallel}	30/74	. . . Optical detectors {(measurement of intensity, velocity, spectral content, polarisation, or phase of infra-red, visible or ultra-violet light G01J)}
30/6047	. . . {with supporting means; Holders}	2030/743	. . . . {FTIR}
30/6052	. . . {body}	2030/746	. . . . {detecting along the line of flow, e.g. axial}
30/606	. . . . {with fluid access or exit ports}	30/76	. . . . Acoustical detectors {(measurement of mechanical vibrations or ultrasonic, sonic or infrasonic waves G01H)}
30/6065	. . . . {with varying cross section}	2030/765	. . . . {for measuring mechanical vibrations}
30/6069	. . . . {with compartments or bed substructure}	2030/77	. . . {detecting radioactive properties}
30/6073	. . . . {in open tubular form}	30/78	. . . using more than one detector
30/6078	. . . . . {Capillaries}	30/80	. . . Fraction collectors
30/6082	. . . . {transparent to radiation}	30/82	. . . Automatic means therefor
30/6086	. . . . {form designed to optimise dispersion}	30/84	. . . Preparation of the fraction to be distributed
30/6091	. . . {Cartridges}	2030/8405	. . . {using pyrolysis}
30/6095	. . . {Micromachined or nanomachined, e.g. micro- or nanosize}	2030/8411	. . . {Intermediate storage of effluent, including condensation on surface}
NOTE		2030/8417	. . . . {the store moving as a whole, e.g. moving wire}
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"		2030/8423	. . . {using permeable separator tubes}
30/62	. . . Detectors specially adapted therefor	2030/8429	. . . {adding modifying material}
2030/621	. . . {signal-to-noise ratio}	2030/8435	. . . . {for chemical reaction}
2030/623	. . . . {by modulation of sample feed or detector response}	2030/8441	. . . . {to modify physical properties}
2030/625	. . . . {by measuring reference material, e.g. carrier without sample}	2030/8447	. . . {Nebulising, aerosol formation or ionisation}
2030/626	. . . {calibration, baseline}	2030/8452	. . . . {Generation of electrically charged aerosols or ions}
2030/628	. . . {Multiplexing, i.e. several columns sharing a single detector}	2030/8458	. . . . . {of ions or clusters of individual ions}
30/64	. . . Electrical detectors	2030/8464	. . . . {Uncharged atoms or aerosols}
2030/642	. . . . {photoionisation detectors}	2030/847	. . . . {by pneumatic means}
2030/645	. . . . {electrical conductivity detectors}	2030/8476	. . . . {by thermal means}
2030/647	. . . . {surface ionisation}	2030/8482	. . . . {by electrical or glow discharge}
30/66	. . . . Thermal conductivity detectors	2030/8488	. . . . {by electric field}
30/68	. . . . Flame ionisation detectors	2030/8494	. . . . {Desolvation chambers}
2030/685	. . . . {flame photometry}	30/86	. . . Signal analysis
30/70	. . . . Electron capture detectors	30/8603	. . . {with integration or differentiation}
30/72	. . . Mass spectrometers {(mass spectrometers per see H01J 49/00)}	30/8606	. . . . {Integration}
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)}	30/861	. . . . {Differentiation}
30/7213	. . . . . {splitting of the gaseous effluent}	30/8613	. . . . {Dividing or multiplying by a constant}
30/722	. . . . . {through a gas permeable barrier (membranes, porous layers)}	30/8617	. . . . {Filtering, e.g. Fourier filtering}
2030/7226	. . . . . {OWTC, short capillaries or transfer line used as column}	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}	30/90	. Plate chromatography, e.g. thin layer or paper chromatography
30/8637	. . . . . {Peak shape}	2030/903	. . {centrifugal chromatography}
30/8641	. . . . . {Baseline}	2030/906	. . {pressurised fluid phase}
30/8644	. . . . . {Data segmentation, e.g. time windows}	30/91	. . Application of the sample
2030/8648	. . . . . {Feature extraction not otherwise provided for}	30/92	. . Construction of the plate
30/8651	. . . {Recording, data acquisition, archiving and storage}	30/93	. . . Application of the sorbent layer
30/8655	. . . . . {Details of data formats}	30/94	. . Development
30/8658	. . . {Optimising operation parameters}	2030/945	. . . {Application of reagents to undeveloped plate}
30/8662	. . . . {Expert systems; optimising a large number of parameters}	30/95	. . Detectors specially adapted therefor; Signal analysis
30/8665	. . . {for calibrating the measuring apparatus}	30/96	. using ion-exchange (G01N 30/02 , G01N 30/90 take precedence)
30/8668	. . . . {using retention times}	2030/965	. . {suppressor columns}
30/8672	. . . . {not depending on an individual instrument, e.g. retention time indexes or calibration transfer}	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
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)}	31/002	. {Determining nitrogen by transformation into ammonia, e.g. KJELDAHL method}
30/8679	. . . . {Target compound analysis, i.e. whereby a limited number of peaks is analysed}	31/005	. {investigating the presence of an element by oxidation (G01N 31/12 takes precedence)}
30/8682	. . . . {Group type analysis, e.g. of components having structural properties in common}	31/007	. . {by measuring the quantity of water resulting therefrom (G01N 31/12 takes precedence)}
30/8686	. . . . {Fingerprinting, e.g. without prior knowledge of the sample components}	NOTE	
30/8689	. . . . {Peak purity of co-eluting compounds}		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.
30/8693	. . . {Models, e.g. prediction of retention times, method development and validation}	31/02	. using precipitation {(measuring deposition or liberation of materials from an electrolyte G01N 27/42)}
30/8696	. . . {Details of Software}	31/10	. using catalysis
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)	31/12	. using combustion (G01N 25/20 takes precedence)
2030/8804	. . . {automated systems}	31/16	. using titration
2030/8809	. . . {analysis specially adapted for the sample}	31/162	. . {Determining the equivalent point by means of a discontinuity}
2030/8813	. . . . {biological materials}	31/164	. . . {by electrical or electrochemical means}
2030/8818	. . . . . {involving amino acids}	31/166	. . {Continuous titration of flowing liquids}
2030/8822	. . . . . {involving blood}	31/168	. . {Determining water content by using Karl Fischer reagent}
2030/8827	. . . . . {involving nucleic acids}	31/18	. . Burettes specially adapted for titration (burettes in general B01L 3/02)
2030/8831	. . . . . {involving peptides or proteins}	31/20	. using microanalysis, e.g. drop reaction
2030/8836	. . . . . {involving saccharides}	31/22	. using chemical indicators (G01N 31/02 takes precedence)
2030/884	. . . . . {organic compounds}	31/221	. . {for investigating pH value}
2030/8845	. . . . . {involving halogenated organic compounds}	31/222	. . {for investigating moisture content}
2030/885	. . . . . {involving polymers}	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)}
2030/8854	. . . . . {involving hydrocarbons}	31/224	. . . {for investigating presence of dangerous gases}
2030/8859	. . . . {inorganic compounds}	31/225	. . . {for oxygen, e.g. including dissolved oxygen}
2030/8863	. . . . . {Fullerenes}	31/226	. . {for investigating the degree of sterilisation}
2030/8868	. . . . {elemental analysis, e.g. isotope dilution analysis}	31/227	. . {for nitrates or nitrites}
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		

31/228	. . {for peroxides}	33/0062	. . . {concerning the measuring method, e.g. intermittent, or the display, e.g. digital}
31/229	. . {for investigating time/temperature history}	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)}
33/00	Investigating or analysing materials by specific methods not covered by groups G01N 1/00 - G01N 31/00	33/0065	. . . . . {using more than one threshold}
33/0001	. {by organoleptic means}	33/0067	. . . . {by measuring the rate of variation of the concentration}
2033/0003	. {Composite materials}	2033/0068	. . . . {using a computer specifically programmed}
33/0004	. {Gaseous mixtures, e.g. polluted air (gaseous biological material G01N 33/497 ; exhaust gas of internal combustion engines G01M 15/102)}	33/007	. . . {Arrangements to check the analyser (calibrating G01N 33/0006)}
33/0006	. . {Calibrating gas analysers}	2033/0072	. . . . {by generating a test gas}
33/0008	. . . {Details concerning storage of calibration data, e.g. in EEPROM}	33/0073	. . . {Control unit therefor}
33/0009	. . {General constructional details of gas analysers, e.g. portable test equipment (G01N 1/22 takes precedence)}	33/0075	. . . . {for multiple spatially distributed sensors, e.g. for environmental monitoring (transmission systems for measured values G08C)}
33/0011	. . . {Sample conditioning (in general G01N 1/28)}	2033/0077	. {testing material properties on individual granules or tablets}
33/0013	. . . . {by a chemical reaction (G01N 33/0024 takes precedence)}	2033/0078	. {testing material properties on manufactured objects}
33/0014	. . . . {by eliminating a gas (G01N 33/0013 and G01N 33/0024 take precedence)}	2033/008	. . {sport articles (balls, skis, rackets)}
33/0016	. . . . {by regulating a physical variable, e.g. pressure, temperature}	2033/0081	. . {containers; packages; bottles}
33/0018	. . . . {by diluting a gas}	2033/0083	. . {vehicle parts}
2033/0019	. . . . {by preconcentration}	2033/0085	. . . {wheels}
33/0021	. . . . {involving the use of a carrier gas for transport to the sensor}	2033/0086	. . {clothes; hosiery}
33/0022	. . . {using a number of analysing channels}	2033/0088	. . {other articles}
33/0024	. . . . {a chemical reaction taking place or a gas being eliminated in one or more channels}	2033/009	. . . {seals}
33/0026	. . . {use of an alternating circulation of another gas (calibrating gas analysers G01N 33/0006)}	2033/0091	. {Powders}
33/0027	. . . {concerning the detector}	2033/0093	. {radioactive materials}
33/0029	. . . . {cleaning}	2033/0095	. {Semiconductive materials}
33/0031	. . . . {comprising two or more sensors, e.g. a sensor array (electrochemical electrode arrays G01N 27/27)}	2033/0096	. {testing material properties on thin layers or coatings}
33/0032	. . . . . {using two or more different physical functioning modes}	33/0098	. {Plants or trees (wood G01N 33/46)}
33/0034	. . . . . {comprising neural networks or related mathematical techniques}	33/02	. Food
33/0036	. . . . {Specially adapted to detect a particular component (all the other sub-groups of G01N 33/0004 take precedence)}	33/025	. . {Fruits or vegetables}
33/0037	. . . . . {for NO _x }	33/03	. . Edible oils or edible fats
33/0039	. . . . . {for O ₃ }	33/04	. . Dairy products
33/004	. . . . . {for CO, CO ₂ }	33/06	. . . Determining fat content, e.g. by butyrometer
33/0042	. . . . . {for SO ₂ , SO ₃ }	33/08	. . Eggs, e.g. by candling
33/0044	. . . . . {for H ₂ S, sulfides}	33/085	. . . {by candling}
33/0045	. . . . . {for Hg}	33/10	. . Starch-containing substances, e.g. dough
33/0047	. . . . . {for organic compounds}	2033/105	. . . {Pasta}
33/0049	. . . . . {for halogenated organic compounds}	33/12	. . Meat; fish
33/005	. . . . . {for H ₂ }	33/14	. . Beverages
33/0052	. . . . . {for gaseous halogens}	33/143	. . . {containing sugar}
33/0054	. . . . . {for ammonia}	33/146	. . . {containing alcohol}
33/0055	. . . . . {for radionuclides}	33/15	. Medicinal preparations {; Physical properties thereof, e.g. dissolubility (drug screening with animal cells G01N 33/5008)}
33/0057	. . . . . {for warfare agents or explosives (properties of explosives G01N 33/227)}	33/18	. Water
33/0059	. . . . . {avoiding interference of a gas with the gas to be measured}	33/1806	. . {biological or chemical oxygen demand (BOD or COD)}
33/006	. . . . . {avoiding interference of water vapour with the gas to be measured}	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}	33/204	. . Structure thereof, e.g. crystal structure
33/1846	. . . {Total carbon analysis}		WARNING
33/1853	. . {hardness of water}		Group G01N 33/204 is incomplete pending reclassification of documents from group G01N 33/20 .
33/186	. . {using one or more living organisms, e.g. a fish}		Groups G01N 33/20 and G01N 33/204 should be considered in order to perform a complete search.
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)}	33/2045	. . . Defects
33/1886	. . {using probes, e.g. submersible probes, buoys}		WARNING
33/1893	. . {using flow cells}		Group G01N 33/2045 is incomplete pending reclassification of documents from group G01N 33/20 .
33/20	. Metals		Groups G01N 33/20 and G01N 33/2045 should be considered in order to perform a complete search.
	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 .	33/205	. . in liquid state, e.g. molten metals
	All groups listed in this Warning should be considered in order to perform a complete search.	33/207	. . Welded or soldered joints; Solderability
33/202	. . Constituents thereof		WARNING
	WARNING		Group G01N 33/207 is incomplete pending reclassification of documents from group G01N 33/20 .
	Group G01N 33/202 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.
	Groups G01N 33/20 and G01N 33/202 should be considered in order to perform a complete search.	33/208	. . Coatings, e.g. platings
33/2022	. . . Non-metallic constituents		WARNING
	WARNING		Group G01N 33/208 is incomplete pending reclassification of documents from group G01N 33/20 .
	Group G01N 33/2022 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.
	Groups G01N 33/20 and G01N 33/2022 should be considered in order to perform a complete search.	33/22	. Fuels, explosives {(liquid hydrocarbons G01N 33/28)}
33/2025	. . . Gaseous constituents	33/222	. . {Solid fuels, e.g. coal}
33/2028	. . . Metallic constituents	33/225	. . {Gaseous fuels, e.g. natural gas}
	WARNING	33/227	. . {Explosives, e.g. combustive properties thereof (detecting explosives in air G01N 33/0057)}
	Group G01N 33/2028 is incomplete pending reclassification of documents from group G01N 33/20 .	33/24	. Earth materials (G01N 33/42 takes precedence)
	Groups G01N 33/20 and G01N 33/2028 should be considered in order to perform a complete search.	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 corpuscles 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. O₂, CO₂, HCO₃}
- 33/493 urine

33/497	. . . of gaseous biological material, e.g. breath	33/5055	. . . . . {involving macrophages}
33/4972	. . . . {Determining alcohol content (for vehicle safety devices B60K 28/06)}	33/5058	. . . . . {Neurological cells}
2033/4975	. . . . {other than oxygen, carbon dioxide or alcohol, e.g. organic vapours}	33/5061	. . . . . {Muscle cells}
2033/4977	. . . . {metabolic gass from microbes, cell cultures, plant tissues and the like}	33/5064	. . . . . {Endothelial cells}
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)	33/5067	. . . . . {Liver cells}
NOTES		33/507	. . . . . {Pancreatic cells}
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.		33/5073	. . . . . {Stem cells}
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.		33/5076	. . . . . {involving cell organelles, e.g. Golgi complex, endoplasmic reticulum}
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.		33/5079	. . . . . {Mitochondria}
33/5002	. . . {Partitioning blood components}	33/5082	. . . . . {Supracellular entities, e.g. tissue, organisms}
33/5005	. . . {involving human or animal cells (immunoassay G01N 33/56966 ; immunoassays of protozoa G01N 33/56905 ; protozoa in screening assays C12Q 1/025)}	33/5085	. . . . . {of invertebrates}
33/5008	. . . . {for testing or evaluating the effect of chemical or biological compounds, e.g. drugs, cosmetics}	33/5088	. . . . . {of vertebrates}
33/5011	. . . . . {for testing antineoplastic activity}	33/5091	. . . . . {for testing the pathological state of an organism}
33/5014	. . . . . {for testing toxicity}	33/5094	. . . . . {for blood cell populations (red blood cells G01N 33/80)}
33/5017	. . . . . {for testing neoplastic activity}	33/5097	. . . . {involving plant cells (immunoassays of plant cells G01N 33/56961 ; unicellular algae, photoplankton and photosynthetic bacteria in screening assays C12Q 1/025)}
33/502	. . . . . {for testing non-proliferative effects}	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)}
33/5023	. . . . . {on expression patterns}	33/521	. . . . . {Single-layer analytical elements}
33/5026	. . . . . {on cell morphology}	33/523	. . . . . {the element being adapted for a specific analyte}
33/5029	. . . . . {on cell motility}	33/525	. . . . . {Multi-layer analytical elements}
33/5032	. . . . . {on intercellular interactions}	33/526	. . . . . {the element being adapted for a specific analyte}
33/5035	. . . . . {on sub-cellular localization}	33/528	. . . . . {Atypical element structures, e.g. gloves, rods, tampons, toilet paper}
33/5038	. . . . . {involving detection of metabolites per se }	33/53	. . . Immunoassay; Biospecific binding assay; Materials therefor
33/5041	. . . . . {involving analysis of members of signalling pathways}	33/5302	. . . . {Apparatus specially adapted for immunological test procedures}
33/5044	. . . . . {involving specific cell types}	33/5304	. . . . . {Reaction vessels, e.g. agglutination plates (for solid-phase systems G01N 33/543)}
33/5047	. . . . . {Cells of the immune system}	33/5306	. . . . . {Improving reaction conditions, e.g. reduction of non-specific binding, promotion of specific binding}
33/505	. . . . . {involving T-cells}	33/5308	. . . . . {for analytes not provided for elsewhere, e.g. nucleic acids, uric acid, worms, mites}
33/5052	. . . . . {involving B-cells}	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 identifiable 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, bromocresol 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 epitope 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}	2035/00108	. . . . {Test strips, e.g. paper}
33/78	. . . . Thyroid gland hormones {, e.g. T3, T4, TBH, TBG or their receptors}	2035/00118	. . . . {for multiple tests}
33/80	. . . . involving blood groups or blood types {or red blood cells (white blood cells G01N 33/56972)}	2035/00128	. . . . {with pressing or squeezing devices}
33/82	. . . . involving vitamins {or their receptors}	2035/00138	. . . . {Slides}
33/84	. . . . involving inorganic compounds or pH	2035/00148	. . . . {Test cards, e.g. Biomerieux or McDonnell multiwell test cards}
33/86	. . . . involving blood coagulating time {or factors, or their receptors}	2035/00158	. . . . {Elements containing microarrays, i.e. "biochip"}
33/88	. . . . involving prostaglandins {or their receptors}	2035/00168	. . . . {Manufacturing or preparing test elements}
33/90	. . . . involving iron binding capacity of blood	2035/00178	. . . . {Special arrangements of analysers}
33/92	. . . . involving lipids, e.g. cholesterol {, lipoproteins, or their receptors (steroid hormones G01N 33/743)}	2035/00188	. . . . {the analyte being in the solid state}
33/94	. . . . involving narcotics {or drugs or pharmaceuticals, neurotransmitters or associated receptors}	2035/00198	. . . . {Dissolution analysers}
33/9406	. . . . . {Neurotransmitters}	2035/00207	. . . . {Handling bulk quantities of analyte}
33/9413	. . . . . {Dopamine}	2035/00217	. . . . {involving measurement of weight}
33/942	. . . . . {Serotonin, i.e. 5-hydroxy-tryptamine}	2035/00227	. . . . {Monitoring a process (online)}
33/9426	. . . . . {GABA, i.e. gamma-amino-butyrate}	2035/00237	. . . . {Handling microquantities of analyte, e.g. microvalves, capillary networks}
33/9433	. . . . . {(Nor)adrenaline}	2035/00247	. . . . {Microvalves}
33/944	. . . . . {Acetylcholine}	2035/00257	. . . . . {Capillary stop flow circuits}
33/9446	. . . . . {Antibacterials}	2035/00267	. . . . . {Melttable plugs}
33/9453	. . . . . {Cardioregulators, e.g. antihypotensives, antiarrhythmics}	2035/00277	. . . . {Special precautions to avoid contamination (e.g. enclosures, glove- boxes, sealed sample carriers, disposal of contaminated material)}
33/946	. . . . . {CNS-stimulants, e.g. cocaine, amphetamines}	2035/00287	. . . . {movable lid/cover for sample or reaction tubes}
33/9466	. . . . . {Antidepressants}	2035/00297	. . . . {Antistatic arrangements}
33/9473	. . . . . {Anticonvulsants, e.g. phenobarbitol, phenytoin}	2035/00306	. . . . {Housings, cabinets, control panels (details)}
33/948	. . . . . {Sedatives, e.g. cannabinoids, barbiturates (opiates G01N 33/9486)}	2035/00316	. . . . {Detecting door closure}
33/9486	. . . . . {Analgesics, e.g. opiates, aspirine}	2035/00326	. . . . {Analysers with modular structure}
33/9493	. . . . . {Immunosuppressants}	2035/00336	. . . . {Analysers adapted for operation in microgravity, i.e. spaceflight}
33/96	. . . . involving blood or serum control standard	2035/00346	. . . . {Heating or cooling arrangements}
33/98	. . . . involving alcohol, e.g. ethanol in breath	2035/00356	. . . . {Holding samples at elevated temperature (incubation)}
NOTE		2035/00366	. . . . {Several different temperatures used}
In groups G01N 35/00 - G01N 35/085 , the indexing codes of G01N are added		2035/00376	. . . . {Conductive heating, e.g. heated plates}
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		2035/00386	. . . . {using fluid heat transfer medium}
35/00009	. {provided with a sample supporting tape, e.g. with absorbent zones}	2035/00396	. . . . {where the fluid is a liquid}
2035/00019	. . {cassette structures}	2035/00405	. . . . {Microwaves}
35/00029	. {provided with flat sample substrates, e.g. slides (G01N 35/028 takes precedence)}	2035/00415	. . . . {Other radiation}
2035/00039	. . {Transport arrangements specific to flat sample substrates, e.g. pusher blade}	2035/00425	. . . . {Heating or cooling means associated with pipettes or the like, e.g. for supplying sample/reagent at given temperature}
2035/00049	. . . . {for loading/unloading a carousel}	2035/00435	. . . . {Refrigerated reagent storage}
2035/00059	. . . . {vacuum chucks}	2035/00445	. . . . {Other cooling arrangements}
35/00069	. . {whereby the sample substrate is of the bio-disk type, i.e. having the format of an optical disk}	2035/00455	. . . . {Controlling humidity in analyser}
2035/00079	. . {Evaporation covers for slides}	2035/00465	. . . . {Separating and mixing arrangements}
2035/00089	. . {Magazines}	2035/00475	. . . . {Filters}
2035/00099	. . {Characterised by type of test elements}	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}	35/02	. . . 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)}
35/00613	. . . {Quality control}	35/021	. . . {having a flexible chain, e.g. "cartridge belt", conveyor for reaction cells or cuvettes}
35/00623	. . . . {of instruments}	2035/023	. . . {forming cuvettes <u>in situ</u> , e.g. from plastic strip}
2035/00633	. . . . . {logging process history of individual samples}	35/025	. . . {having a carousel or turntable for reaction cells or cuvettes}
2035/00643	. . . . . {detecting malfunctions in conveying systems}	35/026	. . . {having blocks or racks of reaction cells or cuvettes}
2035/00653	. . . . . {statistical methods comparing labs or apparatuses}	35/028	. . . {having reaction cells in the form of microtitration plates}
35/00663	. . . . . {of consumables}	35/04	. . . Details of the conveyor system {(G01N 35/021 - G01N 35/028 take precedence)}
2035/00673	. . . . . {of reagents}	2035/0401	. . . {Sample carriers, cuvettes or reaction vessels}
2035/00683	. . . . . {of detectors}	2035/0403	. . . . {Sample carriers with closing or sealing means}
35/00693	. . . {Calibration}	2035/0405	. . . . . {manipulating closing or opening means, e.g. stoppers, screw caps, lids or covers}
2035/00702	. . . . {Curve-fitting; Parameter matching; Calibration constants}	2035/0406	. . . . . {Individual bottles or tubes}
35/00712	. . . {Automatic status testing, e.g. at start-up or periodic}	2035/0408	. . . . . {connected in a flexible chain}
35/00722	. . {Communications; Identification}	2035/041	. . . . . {lifting items out of a rack for access}
35/00732	. . . {Identification of carriers, materials or components in automatic analysers}	2035/0412	. . . . . {Block or rack elements with a single row of samples}
2035/00742	. . . . . {Type of codes}	2035/0413	. . . . . {moving in one dimension}
2035/00752	. . . . . {bar codes}	2035/0415	. . . . . {moving in two dimensions in a horizontal plane}
2035/00762	. . . . . {magnetic code}	2035/0417	. . . . . {forming an endless chain in a vertical plane}
2035/00772	. . . . . {mechanical or optical code other than bar code}	2035/0418	. . . . . {Plate elements with several rows of samples}
2035/00782	. . . . . {reprogrammable code}	2035/042	. . . . . {moved independently, e.g. by fork manipulator}
2035/00792	. . . . {Type of components bearing the codes, other than sample carriers}	2035/0422	. . . . . {carried on a linear conveyor}
2035/00801	. . . . . {Holders for sample carriers, e.g. trays, carousel, racks}	2035/0424	. . . . . {Two or more linear conveyors}
2035/00811	. . . . . {consumable or exchangeable components other than sample carriers, e.g. detectors, flow cells}	2035/0425	. . . . . {Stacks, magazines or elevators for plates}
2035/00821	. . . . . {nature of coded information}	2035/0427	. . . . . {nestable or stockable}
2035/00831	. . . . . {identification of the sample, e.g. patient identity, place of sampling}	2035/0429	. . . . . {Sample carriers adapted for special purposes}
2035/00841	. . . . . {results of the analyses}	2035/0431	. . . . . {characterised by material of construction}
2035/00851	. . . . . {process control parameters}	2035/0432	. . . . . {integrated with measuring devices}
2035/00861	. . . . . {printing and sticking of identifiers}	2035/0434	. . . . . {in the form of a syringe or pipette tip}
35/00871	. . . {Communications between instruments or with remote terminals}	2035/0436	. . . . . {with pre-packaged reagents, i.e. test-packs}
2035/00881	. . . . . {network configurations}	2035/0437	. . . . . {Cleaning cuvettes or reaction vessels}
2035/00891	. . . {Displaying information to the operator}	2035/0439	. . . {Rotary sample carriers, i.e. carousels}
2035/009	. . . . {alarms, e.g. audible}	2035/0441	. . . . . {for samples}
2035/0091	. . . . {GUI [graphical user interfaces]}	2035/0443	. . . . . {for reagents}
35/0092	. . {Scheduling}	2035/0444	. . . . . {for cuvettes or reaction vessels}
2035/0093	. . . {random access not determined by physical position}	2035/0446	. . . . . {Combinations of the above}
2035/0094	. . . {optimisation; experiment design}	2035/0448	. . . . . {composed of interchangeable ring elements}
35/0095	. . . {introducing urgent samples with priority, e.g. Short Turn Around Time Samples [STATS]}	2035/0449	. . . . . {using centrifugal transport of liquid}
2035/0096	. . . {post analysis management of samples, e.g. marking, removing, storing}	2035/0451	. . . . . {composed of interchangeable sectors}
2035/0097	. . {monitoring reactions as a function of time}	2035/0453	. . . . . {Multiple carousels working in parallel}
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)}	2035/0455	. . . . . {Coaxial carousels}
35/0099	. {comprising robots or similar manipulators (robots per se B25J)}	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}	2035/1051	. . . . . {for transporting containers, e.g. retained by friction}
2035/0465	. . . . . {Loading or unloading the conveyor}	2035/1053	. . . . . {for separating part of the liquid, e.g. filters, extraction phase}
2035/0467	. . . . . {Switching points ("aiguillages")}	2035/1055	. . . . . {for immobilising reagents, e.g. dried reagents}
2035/0468	. . . . . {converging, e.g. selecting carriers from multiple incoming streams}	2035/1058	. . . . . {for mixing}
2035/047	. . . . . {diverging, e.g. sending carriers to different analysers}	2035/106	. . . . . {by sucking and blowing}
2035/0472	. . . . . {for selective recirculation of carriers}	2035/1062	. . . . . {for testing the liquid while it is in the transfer device}
2035/0474	. . . {Details of actuating means for conveyors or pipettes}	35/1065	. . {Multiple transfer devices}
2035/0475	. . . . . {electric, e.g. stepper motor, solenoid}	35/1067	. . . {for transfer to or from containers having different spacing}
2035/0477	. . . . . {Magnetic}	2035/1069	. . . . . {by adjusting the spacing between multiple probes of a single transferring head}
2035/0479	. . . . . {hydraulic or pneumatic}	35/1072	. . . {with provision for selective pipetting of individual channels}
2035/0481	. . . . . {Pneumatic tube conveyors; Tube mails; "Rohrpost"}	35/1074	. . . {arranged in a two-dimensional array}
2035/0482	. . . . . {Transmission}	2035/1076	. . . {plurality or independently movable heads}
2035/0484	. . . . . {Belt or chain}	35/1079	. . {with means for piercing stoppers or septums}
2035/0486	. . . . . {Gearing, cams}	35/1081	. . {characterised by the means for relatively moving the transfer device and the containers in an horizontal plane (G01N 35/1011 takes precedence)}
2035/0487	. . . . . {Helix or lead screw}	35/1083	. . . {with one horizontal degree of freedom}
2035/0489	. . . . . {Self-propelled units}	2035/1086	. . . . . {Cylindrical, e.g. variable angle}
2035/0491	. . . . . {Position sensing, encoding; closed-loop control}	2035/1088	. . . . . {Coaxial with a carousel}
2035/0493	. . . . . {Locating samples; identifying different tube sizes}	35/109	. . . {with two horizontal degrees of freedom}
2035/0494	. . . . . {Detecting or compensating positioning errors}	2035/1093	. . . . . {Cylindrical, e.g. variable radius and angle}
2035/0496	. . . {Other details}	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)}
2035/0498	. . . . . {Drawers used as storage or dispensing means for vessels or cuvettes}	35/1097	. . . {characterised by the valves (valves in general F16K)}
35/08	. using a stream of discrete samples flowing along a tube system, e.g. flow injection analysis	37/00	Details not covered by any other group of this subclass
35/085	. . {Flow Injection Analysis}	37/005	. {Measurement methods not based on established scientific theories}
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)}	2201/00	Features of devices classified in G01N 21/00
35/1002	. . {Reagent dispensers}	2201/02	. Mechanical
35/1004	. . {Cleaning sample transfer devices}	2201/021	. . Special mounting in general
2035/1006	. . . {Rinsing only the inside of the tip}	2201/0212	. . . Liquid borne; swimming apparatus
35/1009	. . {Characterised by arrangements for controlling the aspiration or dispense of liquids}	2201/0214	. . . Airborne
35/1011	. . . {Control of the position or alignment of the transfer device}	2201/0216	. . . Vehicle borne
2035/1013	. . . . . {Confirming presence of tip}	2201/0218	. . . Submersible, submarine
35/1016	. . . {Control of the volume dispensed or introduced}	2201/022	. . Casings
2035/1018	. . . . . {Detecting inhomogeneities, e.g. foam, bubbles, clots}	2201/0221	. . . Portable; cableless; compact; hand-held
2035/102	. . . . . {Preventing or detecting loss of fluid by dripping}	2201/0222	. . . Pocket size
2035/1023	. . . . . {using a valve in the tip or nozzle}	2201/0224	. . . Pivoting casing
2035/1025	. . . {Fluid level sensing}	2201/0225	. . . Part of casing being slidable, telescopic
2035/1027	. . {General features of the devices}	2201/0227	. . . Sealable enclosure
2035/103	. . . {using disposable tips}	2201/0228	. . . Moulded parts
2035/1032	. . . {Dilution or aliquotting}	2201/023	. . Controlling conditions in casing
2035/1034	. . . {Transferring microquantities of liquid}	2201/0231	. . . Thermostating
2035/1037	. . . . . {Using surface tension, e.g. pins or wires}	2201/0233	. . . Gas purge
2035/1039	. . . . . {Micropipettes, e.g. microcapillary tubes}	2201/0235	. . . . with gas filters in casing
2035/1041	. . . . . {Ink-jet like dispensers}	2201/0236	. . . Explosion proof
2035/1044	. . . . . {Using pneumatic means}	2201/0238	. . . Moisture monitoring or controlling
2035/1046	. . . . . {Levitated, suspended drops}	2201/024	. . Modular construction
2035/1048	. . . {using the transfer device for another function}	2201/0245	. . . with insertable-removable part

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

- 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 part
- 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	2203/0276	. . . . Spherical specimens
2203/0083	. . . . Rebound strike or reflected energy	2203/0278	. . . . Thin specimens
2203/0085	. . . . Compressibility	2203/028	. . . . . One dimensional, e.g. filaments, wires, ropes or cables
2203/0087	. . . . Resistance to crushing	2203/0282	. . . . . Two dimensional, e.g. tapes, webs, sheets, strips, disks or membranes
2203/0089	. . . . Biorheological properties	2203/0284	. . . . Bulk material, e.g. powders
2203/0091	. . . . Peeling or tearing	2203/0286	. . . . Miniature specimen; Testing on microregions of a specimen
2203/0092	. . . . Visco-elasticity, solidification, curing, cross-linking degree, vulcanisation or strength properties of semi-solid materials	2203/0288	. . . . Springs
2203/0094	. . . . Visco-elasticity	2203/029	. . . . . Leaf spring
2203/0096	. . . . Fibre-matrix interaction in composites	2203/0292	. . . . . Coil spring
2203/0098	. . . . Tests specified by its name, e.g. Charpy, Brinell, Mullen	2203/0294	. . . . . Airs-spring, air bag spring or bellows
2203/02	. . . . Details not specific for a particular testing method	2203/0296	. . . . . Welds
2203/0202	. . . . Control of the test	2203/0298	. . . . . Manufacturing or preparing specimens
2203/0204	. . . . . Safety arrangements, e.g. remote control, emergency stop	2203/04	. . . . Chucks, fixtures, jaws, holders or anvils
2203/0206	. . . . . Means for supplying or positioning specimens or exchangeable parts of the machine such as indenters...	2203/0405	. . . . . Features allowing alignment between specimen and chucks
2203/0208	. . . . . Specific programs of loading, e.g. incremental loading or pre-loading	2203/0411	. . . . . using pneumatic or hydraulic pressure
2203/021	. . . . . Treatment of the signal; Calibration	2203/0417	. . . . . using vacuum
2203/0212	. . . . . Theories, calculations	2203/0423	. . . . . using screws
2203/0214	. . . . . Calculations a priori without experimental data	2203/0429	. . . . . using adhesive bond; Gluing
2203/0216	. . . . . Finite elements	2203/0435	. . . . . modifying the type of the force applied, e.g. the chuck transforms a compressive machine for applying a bending test
2203/0218	. . . . . Calculations based on experimental data	2203/0441	. . . . . with dampers or shock absorbing means
2203/022	. . . . . Environment of the test	2203/0447	. . . . . Holders for quick insertion/removal of test pieces
2203/0222	. . . . . Temperature	2203/0452	. . . . . Cushioning layer between test piece and grip
2203/0224	. . . . . Thermal cycling	2203/0458	. . . . . characterised by their material
2203/0226	. . . . . High temperature; Heating means	2203/0464	. . . . . with provisions for testing more than one specimen at the time
2203/0228	. . . . . Low temperature; Cooling means	2203/047	. . . . . in series
2203/023	. . . . . Pressure	2203/0476	. . . . . in parallel
2203/0232	. . . . . High pressure	2203/0482	. . . . . comprising sensing means
2203/0234	. . . . . Low pressure; Vacuum	2203/0488	. . . . . Diamond anvil cells
2203/0236	. . . . . Other environments	2203/0494	. . . . . Clamping ring, "whole periphery" clamping
2203/0238	. . . . . Inert	2203/06	. . . . . Indicating or recording means; Sensing means
2203/024	. . . . . Corrosive	2203/0605	. . . . . Mechanical indicating, recording or sensing means
2203/0242	. . . . . With circulation of a fluid	2203/0611	. . . . . Hydraulic or pneumatic indicating, recording or sensing means
2203/0244	. . . . . Tests performed " <u>in situ</u> " or after " <u>in situ</u> " use	2203/0617	. . . . . Electrical or magnetic indicating, recording or sensing means
2203/0246	. . . . . Special simulation of " <u>in situ</u> " conditions, scale models or dummies	2203/0623	. . . . . using piezo-electric gauges
2203/0248	. . . . . Tests "on-line" during fabrication	2203/0629	. . . . . using thin films, paintings
2203/025	. . . . . Geometry of the test	2203/0635	. . . . . using magnetic properties
2203/0252	. . . . . Monoaxial, i.e. the forces being applied along a single axis of the specimen	2203/0641	. . . . . using optical, X-ray, ultra-violet, infrared or similar detectors
2203/0254	. . . . . Biaxial, the forces being applied along two normal axes of the specimen	2203/0647	. . . . . Image analysis
2203/0256	. . . . . Triaxial, i.e. the forces being applied along three normal axes of the specimen	2203/0652	. . . . . using contrasting ink, painting, staining
2203/0258	. . . . . Non axial, i.e. the forces not being applied along an axis of symmetry of the specimen	2203/0658	. . . . . using acoustic or ultrasonic detectors
2203/026	. . . . . Specifications of the specimen	2203/0664	. . . . . using witness specimens
2203/0262	. . . . . Shape of the specimen	2203/067	. . . . . Parameter measured for estimating the property
2203/0264	. . . . . Beam	2203/0676	. . . . . Force, weight, load, energy, speed or acceleration
2203/0266	. . . . . Cylindrical specimens	2203/0682	. . . . . Spatial dimension, e.g. length, area, angle
2203/0268	. . . . . Dumb-bell specimens	2203/0688	. . . . . Time or frequency
2203/027	. . . . . Specimens with holes or notches	2203/0694	. . . . . Temperature
2203/0272	. . . . . Cruciform specimens	2223/00	Investigating materials by wave or particle radiation
2203/0274	. . . . . Tubular or ring-shaped specimens	2223/01	. . . . . by radioactivity, nuclear decay

2223/03	. by transmission	2223/11	. . neutrino
2223/04	. . and measuring absorption	2223/20	. Sources of radiation
2223/041	. . . X-ray absorption fine structure [EXAFS]	2223/201	. . betatron
2223/043	. . . gamma ray resonance absorption (Mossbauer effect)	2223/202	. . isotopes
2223/045	. combination of at least 2 measurements (transmission and scatter)	2223/203	. . synchrotron
2223/05	. by diffraction, scatter or reflection	2223/204	. . source created from radiated target
2223/051	. . correcting for scatter	2223/205	. . natural source
2223/052	. . reflection	2223/206	. . sources operating at different energy levels
2223/053	. . back scatter	2223/30	. Accessories, mechanical or electrical features
2223/054	. . small angle scatter	2223/301	. . portable apparatus
2223/055	. . scatter raster collimator	2223/302	. . comparative arrangements
2223/056	. . diffraction	2223/303	. . calibrating, standardising
2223/0561	. . . diffraction cameras	2223/3032	. . . periodic calibration, e.g. with filter wheel
2223/0563	. . . measure of energy-dispersion spectrum of diffracted radiation	2223/3035	. . . phantom
2223/0565	. . . diffraction of electrons, e.g. LEED	2223/3037	. . . standards (constitution)
2223/0566	. . . analysing diffraction pattern	2223/304	. . electric circuits, signal processing
2223/0568	. . . spectro-diffractometry	2223/305	. . computer simulations
2223/063	. . inelastic scatter, e.g. Compton effect	2223/306	. . computer control
2223/064	. . interference of radiation, e.g. Borrmann effect	2223/307	. . cuvettes-sample holders
2223/07	. secondary emission	2223/3075	. . . correcting for the properties of the container, e.g. empty
2223/071	. . combination of measurements, at least 1 secondary emission	2223/308	. . support of radiation source
2223/072	. . combination of measurements, 2 kinds of secondary emission	2223/309	. . support of sample holder
2223/073	. . use of a laser	2223/31	. . temperature control
2223/074	. . activation analysis	2223/3103	. . . cooling, cryostats
2223/0745	. . . neutron-gamma activation analysis	2223/3106	. . . heating, furnaces
2223/076	. . X-ray fluorescence	2223/311	. . high pressure testing, anvil cells
2223/0763	. . . Compton background correcting	2223/312	. . powder preparation
2223/0766	. . . X-ray fluorescence with indicator, tags	2223/313	. . filters, rotating filter disc
2223/079	. . incident electron beam and measuring excited X-rays	2223/314	. . chopper
2223/08	. . incident electron beam and measuring cathode luminescence (U.V.)	2223/315	. . monochromators
2223/081	. . incident ion beam, e.g. proton	2223/316	. . collimators
2223/0813	. . . incident ion beam and measuring X-rays [PIXE]	2223/317	. . windows
2223/0816	. . . incident ion beam and measuring secondary ion beam [SIMS]	2223/318	. . protective films
2223/084	. . photo-electric effect	2223/319	. . using opaque penetrant medium
2223/085	. . photo-electron spectrum [ESCA, XPS]	2223/32	. . adjustments of elements during operation
2223/086	. . Auger electrons	2223/321	. . manipulator for positioning a part
2223/09	. . exo-electron emission	2223/322	. . immersed detecting head
2223/095	. . tribo-emission	2223/323	. . irradiation range monitor, e.g. light beam
2223/10	. Different kinds of radiation or particles	2223/33	. . scanning, i.e. relative motion for measurement of successive object-parts
2223/1003	. . monochromatic	2223/3301	. . . beam is modified for scan, e.g. moving collimator
2223/1006	. . different radiations, e.g. X and alpha	2223/3302	. . . object and detector fixed
2223/101	. . electromagnetic radiation	2223/3303	. . . object fixed; source and detector move
2223/1013	. . . gamma	2223/3304	. . . helicoidal scan
2223/1016	. . . X-ray	2223/3305	. . . detector fixed; source and body moving
2223/102	. . beta or electrons	2223/3306	. . . object rotates
2223/104	. . ions	2223/3307	. . . source and detector fixed; object moves
2223/1045	. . . alpha	2223/3308	. . . object translates
2223/105	. . molecular or atomic beams	2223/331	. . rocking curve analysis
2223/106	. . neutrons	2223/335	. . electronic scanning
2223/1063	. . . fast	2223/34	. . sensing means for gap between source and detector
2223/1066	. . . thermal	2223/345	. . mathematical transformations on beams or signals, e.g. Fourier
2223/107	. . protons	2223/348	. . ellipsoidal collector
2223/108	. . positrons; electron-positron annihilation	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	2223/617	. . ash in coal
2223/404	. . contrast medium	2223/618	. . food
2223/405	. . mapping of a material property	2223/619	. . wood
2223/406	. . fluoroscopic image	2223/62	. . powders
2223/407	. . stimuable phosphor sheet	2223/621	. . tobacco
2223/408	. . display on monitor	2223/622	. . paper
2223/409	. . embedding or impregnating the object	2223/623	. . plastics
2223/41	. . imaging specifically internal structure	2223/624	. . steel, castings
2223/411	. . tv imaging from fluorescent screen	2223/625	. . nuclear fuels, laser imploded targets
2223/412	. . use of image converter tube [PMT]	2223/626	. . radioactive material
2223/413	. . sensor array [CCD]	2223/6265	. . . sample with radioactive tracer, tag, label
2223/414	. . stereoscopic system	2223/627	. . tyres
2223/415	. . radiographic film	2223/628	. . tubes, pipes
2223/416	. . wrap around	2223/629	. . welds, bonds, sealing compounds
2223/417	. . recording with co-ordinate markings	2223/63	. . turbine blades
2223/418	. . electron microscope	2223/631	. . large structures, walls
2223/419	. . computed tomograph	2223/632	. . residual life, life expectancy
2223/42	. . image digitised, -enhanced in an image processor	2223/633	. . thickness, density, surface weight (unit area)
2223/421	. . digitised image, analysed in real time (recognition algorithms)	2223/634	. . wear behaviour, roughness
2223/422	. . windows within the image	2223/635	. . fluids, granulates
2223/423	. . multispectral imaging-multiple energy imaging	2223/636	. . fluid sample with radioactive sources
2223/424	. . energy subtraction image processing (dual energy processing)	2223/637	. . liquid
2223/425	. . temporal (time difference) subtraction processing	2223/638	. . gas
2223/426	. . image comparing, unknown with known substance	2223/639	. . material in a container
2223/427	. . stepped imaging (selected area of sample is changed)	2223/64	. . multiple-sample chamber, multiplicity of materials
2223/50	. Detectors	2223/641	. . particle sizing
2223/501	. . array	2223/642	. . moving sheet, web
2223/5015	. . . linear array	2223/6425	. . . correcting for web flutter
2223/502	. . ionisation chamber	2223/643	. . object on conveyor
2223/503	. . auxiliary reference detector	2223/645	. . quality control
2223/504	. . pin-diode	2223/646	. . flaws, defects
2223/505	. . scintillation	2223/6462	. . . microdefects
2223/5055	. . . scintillation crystal coupled to PMT	2223/6464	. . . radioactive substance into defect site
2223/506	. . time-of-flight	2223/6466	. . . flaws comparing to predetermined standards
2223/507	. . secondary-emission detector	2223/6468	. . . at different temperatures
2223/508	. . photo-acoustic	2223/647	. . leak detection
2223/509	. . infra-red	2223/648	. . voids
2223/60	. Specific applications or type of materials	2223/649	. . porosity
2223/601	. . density profile	2223/65	. . cavitation pits
2223/602	. . crystal growth	2223/651	. . dust
2223/603	. . superlattices	2223/652	. . impurities, foreign matter, trace amounts
2223/604	. . monocrystal	2223/66	. . multiple steps inspection, e.g. coarse/fine
2223/605	. . phases	2291/00	Indexing codes associated with group G01N 29/00
2223/606	. . texture	2291/01	. Indexing codes associated with the measuring variable
2223/607	. . strain	2291/011	. . Velocity or travel time
2223/608	. . superconductors	2291/012	. . Phase angle
2223/61	. . thin films, coatings	2291/014	. . Resonance or resonant frequency
2223/611	. . patterned objects; electronic devices	2291/015	. . Attenuation, scattering
2223/6113	. . . printed circuit board [PCB]	2291/017	. . Doppler techniques
2223/6116	. . . semiconductor wafer	2291/018	. . Impedance
2223/612	. . biological material	2291/02	. Indexing codes associated with the analysed material
2223/6123	. . . bone mineral	2291/021	. . Gases
2223/6126	. . . tissue	2291/0212	. . . Binary gases
2223/613	. . moisture	2291/0215	. . . Mixtures of three or more gases, e.g. air
2223/614	. . road surface	2291/0217	. . . Smoke, combustion gases
2223/615	. . composite materials, multilayer laminates	2291/022	. . Liquids
2223/616	. . earth materials	2291/0222	. . . Binary liquids
		2291/0224	. . . Mixtures of three or more liquids

2291/0226	. . .	Oils, e.g. engine oils	2291/044	. .	Internal reflections (echoes), e.g. on walls or defects
2291/0228	. . .	Aqueous liquids	2291/045	. .	External reflections, e.g. on reflectors
2291/023	. .	Solids	2291/048	. .	Transmission, i.e. analysed material between transmitter and receiver
2291/0231	. . .	Composite or layered materials	2291/051	. .	Perpendicular incidence, perpendicular propagation
2291/0232	. . .	Glass, ceramics, concrete or stone	2291/052	. .	Perpendicular incidence, angular propagation
2291/0234	. . .	Metals, e.g. steel	2291/055	. .	Angular incidence, perpendicular propagation
2291/0235	. . .	Plastics; polymers; soft materials, e.g. rubber	2291/056	. .	Angular incidence, angular propagation
2291/0237	. . .	Thin materials, e.g. paper, membranes, thin films	2291/057	. .	Angular incidence, parallel to surface propagation
2291/0238	. . .	Wood	2291/10	.	Number of transducers
2291/024	. .	Mixtures	2291/101	. .	one transducer
2291/02408	. . .	Solids in gases, e.g. particle suspensions	2291/102	. .	one emitter, one receiver
2291/02416	. . .	Solids in liquids	2291/103	. .	one emitter, two or more receivers
2291/02425	. . .	Liquids in gases, e.g. sprays	2291/104	. .	two or more emitters, one receiver
2291/02433	. . .	Gases in liquids, e.g. bubbles, foams	2291/105	. .	two or more emitters, two or more receivers
2291/02441	. . .	Liquids in porous solids	2291/106	. .	one or more transducer arrays
2291/0245	. . .	Gases in porous solids	2291/26	.	Scanned objects
2291/02458	. . .	Solids in solids, e.g. granules	2291/262	. .	Linear objects
2291/02466	. . .	Biological material, e.g. blood	2291/2623	. . .	Rails; Railroads
2291/02475	. . .	Tissue characterisation	2291/2626	. . .	Wires, bars, rods
2291/02483	. . .	Other human or animal parts, e.g. bones	2291/263	. .	Surfaces
2291/02491	. . .	Materials with nonlinear acoustic properties	2291/2632	. . .	flat
2291/025	. .	Change of phase or condition	2291/2634	. . .	cylindrical from outside
2291/0251	. . .	Solidification, icing, curing composites, polymerisation	2291/2636	. . .	cylindrical from inside
2291/0252	. . .	Melting, molten solids	2291/2638	. . .	Complex surfaces
2291/0253	. . .	Condensation	2291/265	. .	Spherical objects
2291/0254	. . .	Evaporation	2291/267	. .	Welds
2291/0255	. . .	(Bio)chemical reactions, e.g. on biosensors	2291/2672	. . .	Spot welding
2291/0256	. . .	Adsorption, desorption, surface mass change, e.g. on biosensors	2291/2675	. . .	Seam, butt welding
2291/0257	. . . .	with a layer containing at least one organic compound	2291/2677	. . .	Lapp welding
2291/0258	. . .	Structural degradation, e.g. fatigue of composites, ageing of oils	2291/269	. .	Various geometry objects
2291/028	. .	Material parameters	2291/2691	. . .	Bolts, screws, heads
2291/02809	. . .	Concentration of a compound, e.g. measured by a surface mass change	2291/2692	. . .	Tyres
2291/02818	. . .	Density, viscosity	2291/2693	. . .	Rotor or turbine parts
2291/02827	. . .	Elastic parameters, strength or force	2291/2694	. . .	Wings or other aircraft parts
2291/02836	. . .	Flow rate, liquid level	2291/2695	. . .	Bottles, containers
2291/02845	. . .	Humidity, wetness	2291/2696	. . .	Wheels, Gears, Bearings
2291/02854	. . .	Length, thickness	2291/2697	. . .	Wafer or (micro)electronic parts
2291/02863	. . .	Electric or magnetic parameters	2291/2698	. . .	Other discrete objects, e.g. bricks
2291/02872	. . .	Pressure	2333/00		Assays involving biological materials from specific organisms or of a specific nature
2291/02881	. . .	Temperature	NOTE		
2291/0289	. . .	Internal structure, e.g. defects, grain size, texture			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.
2291/04	.	Wave modes and trajectories	2333/001	. .	by chemical synthesis
2291/042	. .	Wave modes	2333/003	. .	of Peptide-nucleic acids (PNAs)
2291/0421	. . .	Longitudinal waves	2333/005	. .	from viruses
2291/0422	. . .	Shear waves, transverse waves, horizontally polarised waves	2333/01	. .	DNA viruses
2291/0423	. . .	Surface waves, e.g. Rayleigh waves, Love waves	2333/015	. . .	Parvoviridae, e.g. feline panleukopenia virus, human Parvovirus
2291/0425	. . .	Parallel to the surface, e.g. creep waves	2333/02	. . .	Hepadnaviridae, e.g. hepatitis B virus
2291/0426	. . .	Bulk waves, e.g. quartz crystal microbalance, torsional waves	2333/025	. . .	Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus
2291/0427	. . .	Flexural waves, plate waves, e.g. Lamb waves, tuning fork, cantilever	2333/03	. . .	Herpetoviridae, e.g. pseudorabies virus
2291/0428	. . .	Mode conversion	2333/032	. . . .	Pseudorabies virus, i.e. Aujeszky virus
2291/043	. .	Complex trajectories	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	2333/4709	. . . . . Amyloid plaque core protein
2333/43504	. . from invertebrates	2333/471	. . . . . Pregnancy proteins, e.g. placenta proteins, alpha-feto-protein, pregnancy specific beta glycoprotein
2333/43508	. . . from crustaceans	2333/4712	. . . . . Muscle proteins, e.g. myosin, actin, protein
2333/43513	. . . from arachnidae	2333/4713	. . . . . Plasma globulins, lactoglobulin
2333/43517	. . . . from spiders	2333/4715	. . . . . Cytokine-induced proteins
2333/43521	. . . . from scorpions	2333/4716	. . . . . Complement proteins, e.g. anaphylatoxin, C3a, C5a
2333/43526	. . . from worms	2333/4718	. . . . . Lipocortins
2333/4353	. . . . from nematodes	2333/4719	. . . . . G-proteins
2333/43534	. . . . . from Caenorhabditis	2333/4721	. . . . . Cationic antimicrobial peptides, e.g. defensins
2333/43539	. . . . from cestodes	2333/4722	. . . . . Proteoglycans, e.g. aggrecan
2333/43543	. . . . . from Taenia	2333/4724	. . . . . Lectins
2333/43547	. . . . from trematodes	2333/4725	. . . . . Mucins, e.g. human intestinal mucin
2333/43552	. . . from insects	2333/4727	. . . . . Calcium binding proteins, e.g. calmodulin
2333/43556	. . . . from ticks	2333/4728	. . . . . alpha-Glycoproteins
2333/4356	. . . . from wasps	2333/473	. . . . . Recognins, e.g. malignin
2333/43565	. . . . from bees	2333/4731	. . . . . Casein
2333/43569	. . . . from flies	2333/4733	. . . . . Acute pancreatitis-associated protein
2333/43573	. . . . . from Drosophila	2333/4734	. . . . . Villin
2333/43578	. . . . from silkworm	2333/4736	. . . . . Retinoblastoma protein
2333/43582	. . . . from mites	2333/4737	. . . . . C-reactive protein
2333/43586	. . . . from fleas	2333/4739	. . . . . Cyclin; Prad 1
2333/43591	. . . . from mosquitoes	2333/474	. . . . . Pancreatic thread protein; Reg protein
2333/43595	. . . from coelenteratae, e.g. medusae	2333/4742	. . . . . Keratin; Cytokeratin
2333/44	. . from protozoa	2333/4743	. . . . . Bactericidal/Permeability-increasing protein BPI
2333/445	. . . Plasmodium	2333/4745	. . . . . Insulin-like growth factor binding protein
2333/45	. . . Toxoplasma	2333/4746	. . . . . Cancer-associated SCM-recognition factor, CRISPP
2333/455	. . . Eimeria	2333/4748	. . . . . p53
2333/46	. . from vertebrates	2333/475	. . . Assays involving growth factors
2333/4603	. . . from fish	2333/4753	. . . Hepatocyte growth factor; Scatter factor; Tumor cytotoxic factor II
2333/4606	. . . from amphibians	2333/4756	. . . Neuregulins, i.e. p185erbB2 ligands, glial growth factor, heregulin, ARIA, neu differentiation factor
2333/4609	. . . from reptiles	2333/48	. . . Nerve growth factor [NGF]
2333/4613	. . . . Snake venom	2333/485	. . . Epidermal growth factor [EGF] (urogastrone)
2333/4616	. . . . . from Russell's viper	2333/49	. . . Platelet-derived growth factor [PDGF]
2333/462	. . . . . from Agkistrodon sp., e.g. acutase, ACTE	2333/495	. . . Transforming growth factor [TGF]
2333/4623	. . . . . from Agkistrodon rhodostoma (Malayan pit viper); Arvin (R); Batroxobin; Ancrod	2333/50	. . . Fibroblast growth factors [FGF]
2333/4626	. . . . . from Agkistrodon contortrix contortrix (copperhead snake); Protac (R)	2333/501	. . . . acidic FGF [aFGF]
2333/463	. . . . . from Croatalus adamanteus (Eastern Diamondback rattlesnake); Crotoleae	2333/503	. . . . basic FGF [bFGF]
2333/4633	. . . . . from Echis carinatus; Ecarin	2333/505	. . . Erythropoietin [EPO]
2333/4636	. . . . . from Bothrops sp.	2333/51	. . . Bone morphogenetic factor; Osteogenins; Osteogenic factor; Bone-inducing factor
2333/464	. . . . . from Bothrops atrox; Reptilase; Atroxin	2333/515	. . . Angiogenesis factors; Angiogenin
2333/4643	. . . . . from Bothrops jararaca; Botrocetin	2333/52	. . . Assays involving cytokines
2333/4646	. . . . . from Oxyuran(eo)us scutellatus (Taipan snake of Elapidae family)	2333/521	. . . Chemokines
2333/465	. . . from birds	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
NOTE		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-1 or LDCF-2
In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned irrespective to the source of the indicated proteins.		2333/524	. . . Thrombopoietin, i.e. C-MPL ligand
2333/47	. . . Assays involving proteins of known structure or function as defined in the subgroups	2333/525	. . . Tumor necrosis factor [TNF]
2333/4701	. . . . Details		
2333/4703	. . . . . Regulators; Modulating activity		
2333/4704	. . . . . Inhibitors; Suppressors		
2333/4706	. . . . . stimulating, promoting or activating activity		
2333/4707	. . . . . Guanosine triphosphatase activating protein, GAP		

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

2333/7158	. . . .	for chemokines	2333/9005	. .	Enzymes with nucleic acid structure; e.g. ribozymes
2333/72	. . .	for hormones (for neuromediators G01N 2333/70571)	2333/901	. .	Antibodies with enzymatic activity; e.g. abzymes
2333/723	. . . .	Steroid/thyroid hormone superfamily, e.g. GR, EcR, androgen receptor, oestrogen receptor	2333/9015	. .	Ligases (6)
2333/726	. . . .	G protein coupled receptor, e.g. TSHR-thyrotropin-receptor, LH/hCG receptor, FSH	2333/902	. .	Oxidoreductases (1.)
2333/745	. .	Assays involving non-enzymic blood coagulation factors	2333/90203	. . .	acting on the aldehyde or oxo group of donors (1.2)
2333/7452	. . .	Thrombomodulin	2333/90206	. . .	acting on the CH-CH group of donors (1.3)
2333/7454	. . .	Tissue factor (tissue thromboplastin, Factor III)	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)
2333/7456	. . .	Factor V	2333/90212	. . .	acting on a sulfur group of donors (1.8)
2333/7458	. . .	Protein S	2333/90216	. . .	acting on a heme group of donors (1.9)
2333/75	. . .	Fibrin; Fibrinogen	2333/90219	. . .	acting on diphenols and related substances as donors (1.10)
2333/755	. . .	Factors VIII, e.g. factor VIII C [AHF], factor VIII Ag [VWF]	2333/90222	. . . .	with oxygen as acceptor (1.10.3) in general
2333/76	. .	Assays involving albumins other than in routine use for blocking surfaces or for anchoring haptens during immunisation	2333/90225	. . . . .	with a definite EC number (1.10.3.-)
2333/765	. . .	Serum albumin, e.g. HSA	2333/90229	. . . . .	Catechol oxidase, i.e. Tyrosinase (1.10.3.1)
2333/77	. . .	Ovalbumin	2333/90232	. . . . .	Laccase (1.10.3.2)
2333/775	. .	Apolipoproteins	2333/90235	. . . . .	Ascorbate oxidase (1.10.3.3)
2333/78	. .	Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]	2333/90238	. . .	acting on hydrogen as donor (1.12)
2333/785	. .	Alveolar surfactant peptides; Pulmonary surfactant peptides	2333/90241	. . .	acting on single donors with incorporation of molecular oxygen, i.e. oxygenases (1.13)
2333/79	. .	Transferrins, e.g. lactoferrins, ovotransferrins	2333/90245	. . .	acting on paired donors with incorporation of molecular oxygen (1.14)
2333/795	. .	Porphyrin- or corrin-ring-containing peptides	2333/90248	. . . .	with NADH or NADPH as one of the donors, and incorporation of one atom of oxygen 1.14.13
2333/80	. .	Cytochromes	2333/90251	. . . . .	with a definite EC number (1.14.13.-)
2333/805	. .	Haemoglobins; Myoglobins	2333/90254	. . . . .	Nitric-oxide synthase (NOS; 1.14.13.39)
2333/81	. .	Protease inhibitors	2333/90258	. . . .	with a reduced iron-sulfur protein as one donor (1.14.15) in general
2333/8103	. .	Exopeptidase (E.C. 3.4.11-19) inhibitors	2333/90261	. . . . .	with a definite EC number (1.14.15.-)
2333/8107	. .	Endopeptidase (E.C. 3.4.21-99) inhibitors	2333/90264	. . . . .	Steroid 11 beta monooxygenase (P-450 protein)(1.14.15.4)
2333/811	. . .	Serine protease (E.C. 3.4.21) inhibitors	2333/90267	. . . . .	Cholesterol monooxygenase (cytochrome P 450scs)(1.14.15.6)
2333/8114	. . . .	Kunitz type inhibitors	2333/9027	. . . . .	Miscellaneous (1.14.99)
2333/8117	. . . . .	Bovine/basic pancreatic trypsin inhibitor (BPTI, aprotinin)	2333/90274	. . . . .	with a definite EC number (1.14.99.-)
2333/8121	. . . . .	Serpins	2333/90277	. . . . .	Steroid 17 alpha-monooxygenase (1.14.99.9)
2333/8125	. . . . .	Alpha-1-antitrypsin	2333/9028	. . . . .	Steroid 21-monooxygenase (1.14.99.10)
2333/8128	. . . . .	Antithrombin III	2333/90283	. . .	acting on superoxide radicals as acceptor (1.15)
2333/8132	. . . . .	Plasminogen activator inhibitors	2333/90287	. . .	oxidising metal ions (1.16)
2333/8135	. . . .	Kazal type inhibitors, e.g. pancreatic secretory inhibitor or ovomucoid	2333/9029	. . .	acting on -CH ₂ - groups (1.17)
2333/8139	. . .	Cysteine protease (E.C. 3.4.22) inhibitors, e.g. cystatin	2333/90293	. . .	acting on reduced ferredoxin as donor (1.18)
2333/8142	. . .	Aspartate protease (E.C. 3.4.23) inhibitors, e.g. HIV protease inhibitors	2333/90296	. . .	acting on reduced flavodoxin as donor (1.19)
2333/8146	. . .	Metalloprotease (E.C. 3.4.24) inhibitors, e.g. tissue inhibitor of metallo proteinase, TIMP	2333/904	. . .	acting on CHOH groups as donors, e.g. glucose oxidase, lactate dehydrogenase (1.1)
2333/815	. .	from leeches, e.g. hirudin, eglin	2333/906	. . .	acting on nitrogen containing compounds as donors (1.4, 1.5, 1.7)
2333/82	. .	Translation products from oncogenes	2333/90605	. . . .	acting on the CH-NH ₂ group of donors (1.4)
2333/825	. .	Metallothioneins	2333/90611	. . . . .	with NAD or NADP as acceptor (1.4.1) in general
2333/90	. .	Enzymes; Proenzymes	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)

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.

2333/9065	. . . . .	acting on CH-NH groups of donors (1.5)	2333/91215	. . . . .	with a definite EC number (2.7.1.-)
2333/90655	. . . . .	with NAD or NADP as acceptor (1.5.1) in general	2333/9122	. . . . .	Thymidine kinase (2.7.1.21)
2333/90661	. . . . .	with a definite EC number (1.5.1.-)	2333/91225	. . . . .	with a carboxyl group as acceptor (2.7.2)
2333/90666	. . . . .	Dihydrofolate reductase [DHFR] (1.5.1.3)	2333/9123	. . . . .	with a nitrogenous group as acceptor (2.7.3), e.g. histidine kinases
2333/90672	. . . . .	with oxygen as acceptor (1.5.3) in general	2333/91235	. . . . .	with a phosphate group as acceptor (2.7.4)
2333/90677	. . . . .	with a definite EC number (1.5.3.-)	2333/9124	. . . . .	Diphosphotransferases (2.7.6)
2333/90683	. . . . .	Sarcosine oxidase (1.5.3.1)	2333/91245	. . . . .	Nucleotidyltransferases (2.7.7)
2333/90688	. . . . .	acting on other nitrogen compounds as donors (1.7)	2333/9125	. . . . .	with a definite EC number (2.7.7.-)
2333/90694	. . . . .	with oxygen as acceptor (1.7.3), e.g. uricase (1.7.3.3)	2333/91255	. . . . .	DNA-directed RNA polymerase (2.7.7.6)
2333/908	. . . . .	acting on hydrogen peroxide as acceptor (1.11)	2333/9126	. . . . .	DNA-directed DNA polymerase (2.7.7.7)
2333/91	. .	Transferases (2.)	2333/91265	. . . . .	Polyribonucleotide nucleotidyl transferases, i.e. polynucleotide phosphorylase (2.7.7.8)
2333/91005	. . . . .	transferring one-carbon groups (2.1)	2333/9127	. . . . .	DNA nucleotidyl-exotransferases, i.e. terminal nucleotidyl transferases (2.7.7.31)
2333/91011	. . . . .	Methyltransferases (general) (2.1.1.)	2333/91275	. . . . .	RNA-directed RNA polymerases, e.g. replicases (2.7.7.48)
2333/91017	. . . . .	with definite EC number (2.1.1.-)	2333/9128	. . . . .	RNA-directed DNA polymerases, e.g. RT (2.7.7.49)
2333/91022	. . . . .	Catecholmethyltransferases (2.1.1.6)	2333/91285	. . . . .	RNA uridyltransferases (2.7.7.52)
2333/91028	. . . . .	Hydroxymethyl-, formyl-transferases (2.1.2)	2333/9129	. . . . .	Transferases for other substituted phosphate groups (2.7.8)
2333/91034	. . . . .	Carboxyl- and carbamoyl transferases (2.1.3)	2333/91295	. . . . .	with paired acceptors (2.7.9)
2333/9104	. . . . .	Aldehyde and ketone transferases (2.2)	2333/914	. .	Hydrolases (3)
2333/91045	. . . . .	Acyltransferases (2.3)	2333/916	. . . . .	acting on ester bonds (3.1), e.g. phosphatases (3.1.3), phospholipases C or phospholipases D (3.1.4)
2333/91051	. . . . .	Acyltransferases other than aminoacyltransferases (general) (2.3.1)	2333/918	. . . . .	Carboxylic ester hydrolases (3.1.1)
2333/91057	. . . . .	with definite EC number (2.3.1.-)	2333/92	. . . . .	Triglyceride splitting, e.g. by means of lipase
2333/91062	. . . . .	Chloramphenicol-acetyltransferases (2.3.1.28)	2333/922	. . . . .	Ribonucleases (RNAses); Deoxyribonucleases (DNAses)
2333/91068	. . . . .	Chalcone synthases (2.3.1.74)	2333/924	. . . . .	acting on glycosyl compounds (3.2)
2333/91074	. . . . .	Aminoacyltransferases (general) (2.3.2)	2333/926	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/9108	. . . . .	with definite EC number (2.3.2.-)	2333/928	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/91085	. . . . .	Transglutaminases; Factor XIIIq (2.3.2.13)	2333/93	. . . . .	Fungal source
2333/91091	. . . . .	Glycosyltransferases (2.4)	2333/932	. . . . .	alpha-amylase from plant source
2333/91097	. . . . .	Hexosyltransferases (general) (2.4.1)	2333/934	. . . . .	Glucoamylase
2333/91102	. . . . .	with definite EC number (2.4.1.-)	2333/936	. . . . .	acting on beta-1, 4 bonds between N-acetylmuramic acid and 2-acetyl-amino 2-deoxy-D-glucose, e.g. lysozyme
2333/91108	. . . . .	Levansucrases (2.4.1.10)	2333/938	. . . . .	acting on beta-galactose-glycoside bonds, e.g. beta-galactosidase
2333/91114	. . . . .	Cellulose synthases (2.4.1.12)	2333/94	. . . . .	acting on alpha-galactose-glycoside bonds, e.g. alpha-galactosidase
2333/91112	. . . . .	Sucrose synthases (2.4.1.13)	2333/942	. . . . .	acting on beta-1, 4-glucosidic bonds, e.g. cellulase
2333/91125	. . . . .	Sucrose phosphate synthases (2.4.1.14)	2333/944	. . . . .	acting on alpha-1, 6-glucosidic bonds, e.g. isoamylase, pullulanase
2333/91131	. . . . .	Glucan branching enzymes (2.4.1.18)	2333/946	. . . . .	Dextranase
2333/91137	. . . . .	Cyclomalto dextrin glucano transferases (2.4.1.19)	2333/948	. . . . .	acting on peptide bonds (3.4)
2333/91142	. . . . .	Pentosyltransferases (2.4.2)	2333/95	. . . . .	Proteinases, i.e. endopeptidases (3.4.21-3.4.99)
2333/91148	. . . . .	transferring other glycosyl groups (2.4.99)	2333/9506	. . . . .	derived from viruses
2333/91154	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/9513	. . . . .	derived from RNA viruses
2333/9116	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/952	. . . . .	derived from bacteria
2333/91165	. . . . .	general (2.5.1)	2333/954	. . . . .	bacteria being Bacillus
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			

2333/956	. . . . .	Bacillus subtilis or Bacillus licheniformis	2333/98	. . . .	acting on amide bonds in linear amides (3.5.1)
2333/958	. . . . .	derived from fungi	2333/982	. . . . .	Asparaginase
2333/96	. . . . .	from yeast	2333/984	. . . . .	Penicillin amidase
2333/962	. . . . .	from Aspergillus	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)
2333/964	. . . . .	derived from animal tissue	2333/988	. .	Lyases (4.), e.g. aldolases, heparinase, enolases, fumarase
2333/96402	. . . . .	from non-mammals	2333/99	. .	Isomerases (5.)
2333/96405	. . . . .	in general	2333/992	. . .	Glucose isomerase; Xylose isomerase; Glucose-6-phosphate isomerase
2333/96408	. . . . .	with EC number	2333/994	. .	Pancreatin
2333/96411	. . . . .	Serine endopeptidases (3.4.21)	2400/00		Assays, e.g. immunoassays or enzyme assays, involving carbohydrates
2333/96413	. . . . .	Cysteine endopeptidases (3.4.22)	2400/02	. .	involving antibodies to sugar part of glycoproteins (lectins from plants G01N 2333/42 , lectins from mammals G01N 2333/4724)
2333/96416	. . . . .	Aspartic endopeptidases (3.4.23)	2400/10	. .	Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters
2333/96419	. . . . .	Metalloendopeptidases (3.4.24)	2400/12	. .	Homoglycans, i.e. polysaccharides having a main chain consisting of one single sugar
2333/96422	. . . . .	from snakes	2400/14	. . .	alpha-D-Glucans, i.e. having alpha 1,n (n=3,4,6) linkages between saccharide units, e.g. pullulan
2333/96425	. . . . .	from mammals	2400/16	. . . .	Starch, amylose, amylopectin
2333/96427	. . . . .	in general	2400/18	. . . .	Cyclodextrin
2333/9643	. . . . .	with EC number	2400/22	. . . .	Dextran
2333/96433	. . . . .	Serine endopeptidases (3.4.21)	2400/24	. . .	beta-D-Glucans, i.e. having beta 1,n (n=3,4,6) linkages between saccharide units, e.g. xanthan
2333/96436	. . . . .	Granzymes	2400/26	. . . .	Cellulose
2333/96438	. . . . .	Dibasic site splicing serine proteases, e.g. furin	2400/28	. . . .	Chitin, chitosan
2333/96441	. . . . .	with definite EC number	2400/32	. . .	Galactans, e.g. agar, agarose, agaropectin, carrageenan
2333/96444	. . . . .	Factor X (3.4.21.6)	2400/34	. . .	alpha-D-Galacturonans, e.g. pectin
2333/96447	. . . . .	Factor VII (3.4.21.21)	2400/36	. . .	beta-D-Fructofuranans, e.g. levan, insulin
2333/9645	. . . . .	Factor IX (3.4.21.22)	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)
2333/96452	. . . . .	Factor XI (3.4.21.27)	2400/40	. . .	Glycosaminoglycans, i.e. GAG or mucopolysaccharides, e.g. chondroitin sulfate, dermatan sulfate, hyaluronic acid, heparin, heparan sulfate, and related sulfated polysaccharides
2333/96455	. . . . .	Kallikrein (3.4.21.34; 3.4.21.35)	2400/44	. . .	Gulurmannuronans, e.g. alginic acid
2333/96458	. . . . .	Factor XII (3.4.21.38)	2400/46	. .	Pectin
2333/96461	. . . . .	Protein C (3.4.21.69)	2400/48	. .	Reserve carbohydrates, e.g. glycogen
2333/96463	. . . . .	Blood coagulation factors not provided for in a preceding group or according to more than one of the proceeding groups	2400/50	. .	Lipopolysaccharides; LPS
2333/96466	. . . . .	Cysteine endopeptidases (3.4.22)	2405/00		Assays, e.g. immunoassays or enzyme assays, involving lipids (lipopolysaccharides G01N 2400/50)
2333/96469	. . . . .	Interleukin 1-beta convertase-like enzymes	2405/02	. .	Triacylglycerols
2333/96472	. . . . .	Aspartic endopeptidases (3.4.23)	2405/04	. .	Phospholipids, i.e. phosphoglycerides
2333/96475	. . . . .	with definite EC number	2405/06	. .	Glycophospholipids, e.g. phosphatidyl inositol
2333/96477	. . . . .	Pepsin (3.4.23.1; 3.4.23.2; 3.4.23.3)	2405/08	. .	Sphingolipids
2333/9648	. . . . .	Chymosin, i.e. rennin (3.4.23.4)	2405/10	. .	Glycosphingolipids, e.g. cerebrosides, gangliosides
2333/96483	. . . . .	Renin (3.4.23.15)			
2333/96486	. . . . .	Metalloendopeptidases (3.4.24)			
2333/96488	. . . . .	Phosphoramidon 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)			

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 amino 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	. sulphylation		
2440/32	. biotinylation		
2440/34	. addition of amino acid(s), e.g. arginylation, (poly-)glutamylolation, (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 maintain 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 solutions 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	2800/067	. . Pancreatitis or colitis
2550/00	Electrophoretic profiling, e.g. for proteome analysis	2800/08	. Hepato-biliary disorders other than hepatitis
2560/00	Chemical aspects of mass spectrometric analysis of biological material	2800/085	. . Liver diseases, e.g. portal hypertension, fibrosis, cirrhosis, bilirubin
NOTES		2800/10	. Musculoskeletal or connective tissue disorders
1. Analysis of proteins, peptides or amino acids by mass spectrometry is classified in G01N 33/6848 and G01N 33/6851 .		2800/101	. . Diffuse connective tissue disease, e.g. Sjögren, Wegener's granulomatosis
2. Analysis of nucleic acids by mass spectrometry is classified in C12Q 1/6872 , C12Q 2563/167 and C12Q 2565/627 .		2800/102	. . . Arthritis; Rheumatoid arthritis, i.e. inflammation of peripheral joints
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	2800/104	. . . Lupus erythematosus [SLE]
2600/00	Assays involving molecular imprinted polymers/ polymers created around a molecular template	2800/105	. . Osteoarthritis, e.g. cartilage alteration, hypertrophy of bone
2610/00	Assays involving self-assembled monolayers [SAMs]	2800/107	. . Crystal induced conditions; Gout
2650/00	Assays involving polymers whose constituent monomers bore biological functional groups before polymerization, i.e. vinyl, acryl derivatives of amino acids, sugars	2800/108	. . Osteoporosis
2800/00	Detection or diagnosis of diseases	2800/12	. Pulmonary diseases
NOTES		2800/122	. . Chronic or obstructive airway disorders, e.g. asthma COPD
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).		2800/125	. . Adult respiratory distress syndrome
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.		2800/127	. . Bronchitis
3. For cancers, which subject matter is classified in G01N 33/574 and subgroups, the present indexing scheme is not used.		2800/14	. Disorders of ear, nose or throat
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.		2800/16	. Ophthalmology
2800/02	. Nutritional disorders	2800/162	. . Conjunctival disorders, e.g. conjunctivitis
2800/04	. Endocrine or metabolic disorders	2800/164	. . Retinal disorders, e.g. retinopathy
2800/042	. . Disorders of carbohydrate metabolism, e.g. diabetes, glucose metabolism	2800/166	. . Cataract
2800/044	. . Hyperlipemia or hypolipemia, e.g. dyslipidaemia, obesity	2800/168	. . Glaucoma
2800/046	. . Thyroid disorders	2800/18	. Dental and oral disorders
2800/048	. . Pituitary or hypothalamic - pituitary relationships, e.g. vasopressin or ADH related	2800/20	. Dermatological disorders
2800/06	. Gastro-intestinal diseases	2800/202	. . Dermatitis
2800/062	. . Gastritis or peptic ulcer disease	2800/205	. . Scaling palmar diseases, e.g. psoriasis, pityriasis
2800/065	. . Bowel diseases, e.g. Crohn, ulcerative colitis, IBS	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; Multiple 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 dysfunction
- 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, mastitis, 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