

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 (measuring or testing processes other than immunoassay, involving enzymes or microorganisms [C12M](#), [C12Q](#))

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. Investigating the properties of materials, specially adapted for use in processes covered by subclass [B23K](#), is 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	2001/1006	. . . {Dispersed solids}
2001/002	. {Devices for supplying or distributing samples to an analysing apparatus}	2001/1012	. . . . {Suspensions}
2001/005	. . {Packages for mailing or similar transport of samples}	2001/1018	. . . . . {Gas suspensions; Fluidised beds}
2001/007	. . {Devices specially adapted for forensic samples, e.g. tamper-proofing, sample tracking}	2001/1025	. . . . . {Liquid suspensions; Slurries; Mud; Sludge}
1/02	. Devices for withdrawing samples {(sampling of foundation soil E02D 1/04 ; collecting or conveying radioactive samples G01T 7/00 , e.g. G01T 7/02 , G01T 7/08)}	2001/1031	. . . {Sampling from special places}
2001/021	. . {Correlating sampling sites with geographical information, e.g. GPS}	2001/1037	. . . . {from an enclosure (hazardous waste, radioactive)}
2001/022	. . {sampling for security purposes, e.g. contraband, warfare agents}	2001/1043	. . . . {from sewers}
2001/024	. . . {passengers or luggage}	2001/105	. . . . {from high-pressure reactors or lines}
2001/025	. . . {postal items}	2001/1056	. . . {Disposable (single-use) samplers}
2001/027	. . . {field kits / quick test kits}	2001/1062	. . . {Sampling under constant temperature, pressure, or the like}
2001/028	. . {Sampling from a surface, swabbing, vaporising}	2001/1068	. . . . {Cooling sample below melting point}
1/04	. . in the solid state, e.g. by cutting	2001/1075	. . . . {Trapping evaporated liquids by cooling}
2001/045	. . . {Laser ablation; Microwave vaporisation}	2001/1081	. . . . {Storing samples under refrigeration}
1/06	. . . providing a thin slice, e.g. microtome	2001/1087	. . . . {Categories of sampling}
2001/061	. . . . {Blade details}	2001/1093	. . . . {Composite sampling; Cumulative sampling}
2001/063	. . . . . {with sawing action}	1/12	. . . Dippers; Dredgers
2001/065	. . . . . {Drive details}	1/125	. . . . {adapted for sampling molten metals}
2001/066	. . . . . {electric}	1/14	. . . Suction devices, e.g. pumps; Ejector devices
2001/068	. . . . {Illumination means}	1/1409	. . . . {adapted for sampling molten metals}
1/08	. . . involving an extracting tool, e.g. core bit	2001/1418	. . . . {Depression, aspiration}
2001/085	. . . . {Grabs}	2001/1427	. . . . . {Positive displacement, piston, peristaltic}
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)}	2001/1436	. . . . . {Ejector}
		2001/1445	. . . . {Overpressure, pressurisation at sampling point}
		2001/1454	. . . . . {Positive displacement, piston}
		2001/1463	. . . . . {Injector; Air-lift}
		2001/1472	. . . . {Devices not actuated by pressure difference}
		2001/1481	. . . . . {Archimedian screw; Auger}

2001/149	. . . . . {Capillaries; Sponges}	2001/2282	. . . {with cooling means}
1/16	. . . with provision for intake at several levels (G01N 1/2035) G01N 1/12 , G01N 1/14 take precedence)	2001/2285	. . . {Details of probe structures}
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)	2001/2288	. . . . {Filter arrangements}
2001/185	. . . . {Conveyor of containers successively filled}	2001/2291	. . . . {Movable probes, e.g. swivelling, swinging}
1/20	. . . for flowing or falling materials (G01N 1/2035) G01N 1/12 , G01N 1/14 take precedence)	1/2294	. . . {Sampling soil gases or the like}
2001/2007	. . . . {Flow conveyors}	2001/2297	. . . {Timing devices}
2001/2014	. . . . {Pneumatic conveyors}	1/24	. . . Suction devices (G01N 1/22 - G01N 1/2294 take precedence)
2001/2021	. . . . {falling under gravity}	2001/241	. . . . {Bellows}
2001/2028	. . . . {Belts}	2001/242	. . . . {Injectors or ejectors}
1/2035	. . . . {by deviating part of a fluid stream, e.g. by drawing-off or tapping}	2001/244	. . . . {using critical flow orifices}
1/2042	. . . . {using a piston actuated by the pressure of the liquid to be sampled}	2001/245	. . . . {Fans}
2001/205	. . . . {using a valve}	2001/247	. . . . {Syringes}
2001/2057	. . . . {Sample chamber in a valve/piston}	2001/248	. . . . {Evacuated containers}
2001/2064	. . . . {using a by-pass loop}	1/26	. . . with provision for intake from several spaces
2001/2071	. . . . {Removable sample 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)}
2001/2078	. . . . {Pre-evacuated bottle}	1/2806	. {Means for preparing replicas of specimens, e.g. for microscopical analysis}
2001/2085	. . . . {Non-pre-evacuated septum closed bottles}	1/2813	. {Producing thin layers of samples on a substrate, e.g. smearing, spinning-on (G01N 1/30 takes precedence)}
2001/2092	. . . . {Cross-cut sampling}	2001/282	. . . {with mapping; Identification of areas; Spatial correlated pattern}
1/22	. . in the gaseous state {(specially adapted for biological material G01N 33/497 ; measuring breath flow A61B 5/087)}	2001/2826	. . . {Collecting by adsorption or absorption}
1/2202	. . . {involving separation of sample components during sampling}	2001/2833	. . . {Collecting samples on a sticky, tacky, adhesive surface}
1/2205	. . . . {with filters}	2001/284	. . . . {using local activation of adhesive, i.e. Laser Capture Microdissection}
1/2208	. . . . {with impactors}	2001/2846	. . . {Cytocentrifuge method}
1/2211	. . . . {with cyclones}	1/2853	. {Shadowing samples}
1/2214	. . . . {by sorption}	1/286	. {involving mechanical work, e.g. chopping, disintegrating, compacting, homogenising (microtomes G01N 1/06 ; pulverising in general B02C ; mixing in general B01F)}
2001/2217	. . . . {using a liquid}	2001/2866	. . . {Grinding or homogeneising}
2001/222	. . . . {Other features}	2001/2873	. . . {Cutting or cleaving}
2001/2223	. . . . {aerosol sampling devices}	2001/288	. . . . {Filter punches}
1/2226	. . . {Sampling from a closed space, e.g. food package, head space}	2001/2886	. . . . {Laser cutting, e.g. tissue catapult}
2001/2229	. . . . {Headspace sampling, i.e. vapour over liquid}	2001/2893	. {Preparing calibration standards}
2001/2232	. . . . {using a membrane, i.e. pervaporation}	1/30	. Staining; Impregnating (; Fixation; Dehydration; Multistep processes for preparing samples of tissue, cell or nucleic acid material and the like for analysis)
2001/2235	. . . . {over a melt, e.g. furnace}	2001/302	. . . {Stain compositions}
2001/2238	. . . . {the gas being compressed or pressurized}	2001/305	. . . {Fixative compositions}
2001/2241	. . . . {purpose-built sampling enclosure for emissions}	2001/307	. . . . {non-toxic, no Hg, no formaldehyde}
2001/2244	. . . {Exhaled gas, e.g. alcohol detecting}	1/31	. . . Apparatus therefor
1/2247	. . . {Sampling from a flowing stream of gas}	1/312	. . . . {for samples mounted on planar substrates}
2001/225	. . . . {isokinetic, same flow rate for sample and bulk gas}	2001/315	. . . . {Basket-type carriers for tissues}
1/2252	. . . . {in a vehicle exhaust}	2001/317	. . . . {spraying liquids onto surfaces}
2001/2255	. . . . {with dilution of the sample}	1/32	. Polishing; Etching
1/2258	. . . . {in a stack or chimney}	1/34	. Purifying; Cleaning {(processes or apparatus for extracting or separating nucleic acids from biological samples C12N 15/1003)}
2001/2261	. . . . {preventing condensation (heating lines)}	1/36	. Embedding or analogous mounting of samples
2001/2264	. . . . {with dilution}	2001/362	. . . {using continuous plastic film to mount sample}
2001/2267	. . . . {separating gas from liquid, e.g. bubbles}		
2001/227	. . . . {separating gas from solid, e.g. filter}		
1/2273	. . . {Atmospheric sampling}		
2001/2276	. . . . {Personal monitors}		
2001/2279	. . . . {high altitude, e.g. rockets, balloons}		

2001/364	. . . {using resins, epoxy}	3/12	. . . Pressure testing
2001/366	. . . {Moulds; Demoulding}	3/14	. . generated by dead weight, e.g. pendulum; generated by springs tension (G01N 3/18 takes precedence)
2001/368	. . . {Mounting multiple samples in one block, e.g. TMA [Tissue Microarrays]}	3/16	. . applied through gearing (G01N 3/18 takes precedence)
1/38	. . Diluting, dispersing or mixing samples	3/165	. . . {generated by rotation, i.e. centrifugal force (for testing structures or apparatus G01M 99/004)}
2001/381	. . . {by membrane diffusion; Permeation tubes}	3/18	. . Performing tests at high or low temperatures
2001/382	. . . {using pistons of different sections}	3/20	. by applying steady bending forces (G01N 3/26 , G01N 3/28 take precedence)
2001/383	. . . {collecting and diluting in a flow of liquid}	3/22	. by applying steady torsional forces (G01N 3/26 , G01N 3/28 take precedence)
2001/385	. . . {diluting by adsorbing a fraction of the sample}	3/24	. by applying steady shearing forces (G01N 3/26 , G01N 3/28 take precedence)
2001/386	. . . {Other diluting or mixing processes}	3/26	. Investigating twisting or coiling properties
2001/387	. . . . {mixing by blowing a gas, bubbling}	3/28	. Investigating ductility, e.g. suitability of sheet metal for deep-drawing or spinning
2001/388	. . . . {mixing the sample with a tracer}	3/30	. by applying a single impulsive force, e.g. by falling weight
1/40	. . Concentrating samples	3/303	. . generated only by free-falling weight
1/4005	. . . {by transferring a selected component through a membrane}	3/307	. . generated by a compressed or tensile-stressed spring; generated by pneumatic or hydraulic means
2001/4011	. . . . {being a ion-exchange membrane}	3/31	. . generated by a rotating fly-wheel
2001/4016	. . . . {being a selective membrane, e.g. dialysis or osmosis}	3/313	. . generated by explosives
1/4022	. . . {by thermal techniques; Phase changes}	3/317	. . generated by electromagnetic means
2001/4027	. . . . {evaporation leaving a concentrated sample}	3/32	. by applying repeated or pulsating forces
2001/4033	. . . . {sample concentrated on a cold spot, e.g. condensation or distillation}	3/34	. . generated by mechanical means, e.g. hammer blows
2001/4038	. . . {electric methods, e.g. electromigration, electrophoresis, ionisation}	3/36	. . generated by pneumatic or hydraulic means
1/4044	. . . {by chemical techniques; Digestion; Chemical decomposition}	3/38	. . generated by electromagnetic means
1/405	. . . {by adsorption or absorption}	3/40	. Investigating hardness or rebound hardness
1/4055	. . . {by solubility techniques}	3/405	. . {by determining the vibration frequency of a sensing element in contact with the specimen}
2001/4061	. . . . {Solvent extraction}	3/42	. . by performing impressions under a steady load by indentors, e.g. sphere, pyramid (G01N 3/54 takes precedence)
2001/4066	. . . . {using difference of solubility between liquid and gas, e.g. bubbling, scrubbing or sparging}	3/44	. . . the indentors being put under a minor load and a subsequent major load, i.e. Rockwell system
2001/4072	. . . . {membraneless transfer of a component between two parallel laminar flows of fluid}	3/46	. . . the indentors performing a scratching movement
1/4077	. . . {by other techniques involving separation of suspended solids}	3/48	. . by performing impressions under impulsive load by indentors, e.g. falling ball (G01N 3/54 takes precedence)
2001/4083	. . . . {sedimentation}	3/50	. . by measuring rolling friction, e.g. by rocking pendulum (G01N 3/54 takes precedence)
2001/4088	. . . . {filtration}	3/52	. . by measuring extent of rebound of a striking body (G01N 3/54 takes precedence)
2001/4094	. . . . {using ultrasound}	3/54	. . Performing tests at high or low temperatures
1/42	. . Low-temperature sample treatment, e.g. cryofixation	3/56	. Investigating resistance to wear or abrasion
1/44	. . Sample treatment involving radiation, e.g. heat	3/562	. . {using radioactive tracers}
3/00	Investigating strength properties of solid materials by application of mechanical stress	3/565	. . {of granular or particulate material}
	NOTE	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)}
	This group covers the stressing of materials not only below but also beyond the elastic limit, e.g. until breaking occurs.	3/58	. Investigating machinability by cutting tools; Investigating the cutting ability of tools
3/02	. Details	3/60	. Investigating resistance of materials, e.g. refractory materials, to rapid heat changes {(thermal testing of structures or apparatus G01M 99/002)}
3/04	. . Chucks		
3/06	. . Special adaptations of indicating or recording means		
3/062	. . . {with mechanical indicating or recording means}		
3/064	. . . {with hydraulic indicating or recording means}		
3/066	. . . {with electrical indicating or recording means}		
3/068	. . . {with optical indicating or recording means}		
3/08	. by applying steady tensile or compressive forces (G01N 3/28 takes precedence)		
3/10	. . generated by pneumatic or hydraulic pressure (G01N 3/18 takes precedence)		

3/62	<ul style="list-style-type: none"> Manufacturing, calibrating, or repairing devices used in investigations covered by the preceding subgroups 	9/12	<ul style="list-style-type: none"> by observing the depth of immersion of the bodies, e.g. hydrometers
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)	9/14	<ul style="list-style-type: none"> the body being built into a container
5/02	<ul style="list-style-type: none"> 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)} 	9/16	<ul style="list-style-type: none"> the body being pivoted
5/025	<ul style="list-style-type: none"> {for determining moisture content} 	9/18	<ul style="list-style-type: none"> Special adaptations for indicating, recording, or control
5/04	<ul style="list-style-type: none"> by removing a component, e.g. by evaporation, and weighing the remainder 	9/20	<ul style="list-style-type: none"> by balancing the weight of the bodies
5/045	<ul style="list-style-type: none"> {for determining moisture content} 	9/22	<ul style="list-style-type: none"> with continuous circulation of the fluid
7/00	Analysing materials by measuring the pressure or volume of a gas or vapour	9/24	<ul style="list-style-type: none"> by observing the transmission of wave or particle radiation through the material
7/02	<ul style="list-style-type: none"> by absorption, adsorption, or combustion of components and measurement of the change in pressure or volume of the remainder {(absorption bulbs B01D 53/00)} 	9/26	<ul style="list-style-type: none"> by measuring pressure differences
7/04	<ul style="list-style-type: none"> by absorption or adsorption alone 	2009/263	<ul style="list-style-type: none"> {using vertically-movable pressure transducer}
7/06	<ul style="list-style-type: none"> by combustion alone 	9/266	<ul style="list-style-type: none"> {for determining gas density}
7/08	<ul style="list-style-type: none"> by combustion followed by absorption or adsorption of the combustion products 	9/28	<ul style="list-style-type: none"> by measuring the blowing pressure of gas bubbles escaping from nozzles at different depths in a liquid
7/10	<ul style="list-style-type: none"> by allowing diffusion of components through a porous wall and measuring a pressure or volume difference 	9/30	<ul style="list-style-type: none"> by using centrifugal effects
7/12	<ul style="list-style-type: none"> the diffusion being followed by combustion or catalytic oxidation 	9/32	<ul style="list-style-type: none"> by using flow properties of fluids, e.g. flow through tubes or apertures
7/14	<ul style="list-style-type: none"> 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)} 	9/34	<ul style="list-style-type: none"> by using elements moving through the fluid, e.g. vane
7/16	<ul style="list-style-type: none"> by heating the material 	9/36	<ul style="list-style-type: none"> 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)
7/18	<ul style="list-style-type: none"> by allowing the material to react 	11/00	Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties
7/20	<ul style="list-style-type: none"> the reaction being fermentation 	2011/0006	<ul style="list-style-type: none"> {Calibrating, controlling or cleaning viscometers}
7/22	<ul style="list-style-type: none"> of dough 	2011/0013	<ul style="list-style-type: none"> {Temperature compensation}
9/00	Investigating density or specific gravity of materials; Analysing materials by determining density or specific gravity	2011/002	<ul style="list-style-type: none"> {Controlling sample temperature; Thermal cycling during measurement}
9/002	<ul style="list-style-type: none"> {using variation of the resonant frequency of an element vibrating in contact with the material submitted to analysis (G01N 9/34 takes precedence)} 	2011/0026	<ul style="list-style-type: none"> {Investigating specific flow properties of non-Newtonian fluids}
2009/004	<ul style="list-style-type: none"> {comparing frequencies of two elements} 	2011/0033	<ul style="list-style-type: none"> {Yield stress; Residual stress at zero shear rate}
2009/006	<ul style="list-style-type: none"> {vibrating tube, tuning fork} 	2011/004	<ul style="list-style-type: none"> {Stress relaxation time}
2009/008	<ul style="list-style-type: none"> {Schlatter vibrating vane type} 	2011/0046	<ul style="list-style-type: none"> {In situ measurement during mixing process}
9/02	<ul style="list-style-type: none"> by measuring weight of a known volume 	2011/0053	<ul style="list-style-type: none"> {using ergometry; measuring power consumption}
2009/022	<ul style="list-style-type: none"> {of solids} 	2011/006	<ul style="list-style-type: none"> {Determining flow properties indirectly by measuring other parameters of the system}
2009/024	<ul style="list-style-type: none"> {the volume being determined directly, e.g. by size of container} 	2011/0066	<ul style="list-style-type: none"> {electrical properties}
2009/026	<ul style="list-style-type: none"> {the volume being determined by amount of fluid displaced} 	2011/0073	<ul style="list-style-type: none"> {acoustic properties}
2009/028	<ul style="list-style-type: none"> {a gas being used as displacement fluid} 	2011/008	<ul style="list-style-type: none"> {optical properties}
9/04	<ul style="list-style-type: none"> of fluids 	2011/0086	<ul style="list-style-type: none"> {magnetic properties}
9/06	<ul style="list-style-type: none"> with continuous circulation through a pivotally supported member 	2011/0093	<ul style="list-style-type: none"> {thermal properties}
9/08	<ul style="list-style-type: none"> by measuring buoyant force of solid materials by weighing both in air and in a liquid 	11/02	<ul style="list-style-type: none"> by measuring flow of the material
9/10	<ul style="list-style-type: none"> by observing bodies wholly or partially immersed in fluid materials 	11/04	<ul style="list-style-type: none"> through a restricted passage, e.g. tube, aperture
		11/06	<ul style="list-style-type: none"> by timing the outflow of a known quantity
		11/08	<ul style="list-style-type: none"> by measuring pressure required to produce a known flow
		11/10	<ul style="list-style-type: none"> by moving a body within the material
		11/105	<ul style="list-style-type: none"> {by detecting the balance position of a float moving in a duct conveying the fluid under test}
		11/12	<ul style="list-style-type: none"> by measuring rising or falling speed of the body; by measuring penetration of wedged gauges (G01N 11/16 takes precedence)
		11/14	<ul style="list-style-type: none"> by using rotary bodies, e.g. vane (G01N 11/16 takes precedence)
		11/142	<ul style="list-style-type: none"> {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
		2011/145	<ul style="list-style-type: none"> {both members rotating}

- 2011/147 . . . {Magnetic coupling}
- 11/16 . . by measuring damping effect upon oscillatory body
- 11/162 . . . {Oscillations being torsional, e.g. produced by rotating bodies}
- 11/165 {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
- 11/167 {Sample holder oscillates, e.g. rotating crucible}
- 13/00 Investigating surface or boundary effects, e.g. wetting power; Investigating diffusion effects; Analysing materials by determining surface, boundary, or diffusion effects (scanning-probe techniques or apparatus G01Q)**
- 2013/003 . {Diffusion; diffusivity between liquids}
- 2013/006 . {Dissolution of tablets or the like}
- 13/02 . Investigating surface tension of liquids
- 2013/0208 . . {by measuring contact angle}
- 2013/0216 . . {by measuring skin friction or shear force}
- 2013/0225 . . {of liquid metals or solder}
- 2013/0233 . . {Langmuir troughs; thin-film balances}
- 2013/0241 . . {bubble, pendant drop, sessile drop methods}
- 2013/025 . . . {Measuring foam stability}
- 2013/0258 . . . {Oscillating drop methods}
- 2013/0266 . . . {Bubble methods}
- 2013/0275 . . {involving surface-active agents}
- 2013/0283 . . {methods of calculating surface tension}
- 2013/0291 . . {Wilhelmy plate}
- 13/04 . Investigating osmotic effects
- 15/00 Investigating characteristics of particles; Investigating permeability, pore-volume or surface-area of porous materials (identification of microorganisms C12Q)**
- 2015/0003 . {Determining electric mobility, velocity profile, average speed or velocity of a plurality of particles}
- 2015/0007 . {Investigating dispersion of gas}
- 2015/0011 . . {in liquids, e.g. bubbles}
- 2015/0015 . . {in solids}
- 2015/0019 . {Means for transferring or separating particles prior to analysis, e.g. hoppers or particle conveyors}
- 2015/0023 . {Investigating dispersion of liquids}
- 2015/0026 . . {in gas, e.g. fog}
- 2015/003 . . {in liquids, e.g. emulsion}
- 2015/0034 . . {in solids}
- 2015/0038 . {Investigating nanoparticles}
- 2015/0042 . {Investigating dispersion of solids}
- 2015/0046 . . {in gas, e.g. smoke}
- 2015/0049 . . . {of filaments in gas}
- 2015/0053 . . {in liquids, e.g. trouble}
- 2015/0057 . . . {of filaments in liquids}
- 2015/0061 . . {in solids, e.g. petrography}
- 2015/0092 . {Monitoring flocculation or agglomeration}
- 2015/0096 . {Investigating consistence of powders, dustability, dustiness}
- 15/01 . specially adapted for biological cells, e.g. blood cells (investigating sedimentation of particle suspensions in blood G01N 15/05)
- 2015/011 . . {with lysing, e.g. of erythrocytes}
- 2015/012 . . {Red blood cells}
- 2015/014 . . . {Reticulocytes}
- 2015/016 . . {White blood cells}
- 2015/018 . . {Platelets}
- 2015/019 . . {Biological contaminants; Fouling}
- 15/02 . Investigating particle size or size distribution (by measuring osmotic pressure G01N 7/10; investigating sedimentation of particle suspensions G01N 15/04; investigating individual particles G01N 15/10)
- 15/0205 . . by optical means
- 15/0211 . . . {Investigating a scatter or diffraction pattern}
- 2015/0216 {from fluctuations of diffraction pattern}
- 2015/0222 {from dynamic light scattering, e.g. photon correlation spectroscopy}
- 15/0227 . . . using imaging; using holography
- 2015/0233 {using holography}
- 2015/0238 . . . {Single particle scatter}
- 2015/0244 . . . {with cutting-out molecular scatter}
- 2015/025 . . . {Methods for single or grouped particles}
- 15/0255 . . {with mechanical, e.g. inertial, classification, and investigation of sorted collections (with centrifuges G01N 15/042)}
- 2015/0261 . . . {using impactors}
- 15/0266 . . {with electrical classification}
- 15/0272 . . {with screening; with classification by filtering (B01D takes precedence)}
- 2015/0277 . . {Average size only}
- 2015/0283 . . {using control of suspension concentration}
- 2015/0288 . . {Sorting the particles}
- 2015/0294 . . {Particle shape}
- 2015/03 . {Electro-optical investigation of a plurality of particles, the analyser being characterised by the optical arrangement}
- 2015/035 . . {the optical arrangement forming an integrated apparatus with the sample container}
- 15/04 . Investigating sedimentation of particle suspensions
- 15/042 . . {by centrifuging and investigating centrifugates (centrifuges per se B04B)}
- 2015/045 . . . {by optical analysis}
- 2015/047 {by static multidetectors}
- 15/05 . . in blood
- 2015/055 . . . {for hematocrite determination}
- 15/06 . Investigating concentration of particle suspensions (by weighing G01N 5/00; investigating sedimentation of particle suspensions G01N 15/04; investigating individual particles G01N 15/10)
- 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)}	2015/1029	. . . {Particle size}
15/0618	. . . {of the filter type (G01N 15/0643 takes precedence)}	2015/103	. . . {Particle shape}
15/0625	. . . . {Optical scan of the deposits}	15/1031	. . . by measuring electrical or magnetic effects
15/0631	. . . . {Separation of liquids, e.g. by absorption, wicking}	15/12	. . . by observing changes in resistance or impedance across apertures when traversed by individual particles, e.g. by using the Coulter principle
15/0637	. . . {Moving support}	15/13	. . . . Details pertaining to apertures
15/0643	. . . . {of the filter type}	15/131	. . . . {Details (G01N 15/13 takes precedence)}
15/065	. . {using condensation nuclei counters}	15/132	. . . . . {Circuits}
15/0656	. . {using electric, e.g. electrostatic methods or magnetic methods (by investigating individual particles G01N 15/1031, G01N 15/12)}	2015/133	. . . . . {Flow forming}
2015/0662	. . {Comparing before/after passage through filter}	15/134	. . . . . {Devices using two or more apertures}
2015/0668	. . {Comparing properties of sample and carrier fluid, e.g. oil in water}	2015/135	. . . . . {Electrodes}
2015/0675	. . {Comparing suspension before/after dilution}	2015/136	. . . . . {Scanning electrodes}
2015/0681	. . {Purposely modifying particles, e.g. humidifying for growing}	2015/137	. . . . . {Cleaning}
2015/0687	. . {in solutions, e.g. non volatile residue}	2015/138	. . . . . {Detecting blocking debris}
15/075	. . by optical means	2015/139	. . . . . {Measuring the ratio of AC/DC impedances}
15/08	. Investigating permeability, pore-volume, or surface area of porous materials	15/14	. . Optical investigation techniques, e.g. flow cytometry
15/0806	. . {Details, e.g. sample holders, mounting samples for testing}	2015/1402	. . . {Data analysis by thresholding or gating operations performed on the acquired signals or stored data}
2015/0813	. . {Measuring intrusion, e.g. of mercury}	15/1404	. . . Handling flow, e.g. hydrodynamic focusing
15/082	. . {Investigating permeability by forcing a fluid through a sample}	2015/1406	. . . . {Control of droplet point}
15/0826	. . . {and measuring fluid flow rate, i.e. permeation rate or pressure change}	15/1409	. . . . Handling samples, e.g. injecting samples
2015/0833	. . {Pore surface area}	2015/1411	. . . . . {Features of sheath fluids}
2015/084	. . {Testing filters}	2015/1413	. . . . . {Hydrodynamic focussing}
2015/0846	. . {by use of radiation, e.g. transmitted or reflected light}	2015/1415	. . . . . {Control of particle position}
2015/0853	. . {by electrical capacitance measurement}	2015/1418	. . . . . {Eliminating clogging of debris}
2015/086	. . {of films, membranes or pellicules}	2015/142	. . . . . {Acoustic or ultrasonic focussing}
2015/0866	. . {Sorption}	2015/1422	. . . . . {Electrical focussing}
2015/0873	. . . {Dynamic sorption, e.g. with flow control means}	15/1425	. . . {using an analyser being characterised by its control arrangement}
15/088	. . {Investigating volume, surface area, size or distribution of pores; Porosimetry}	15/1427	. . . . {with the synchronisation of components, a time gate for operation of components, or suppression of particle coincidences}
15/0886	. . . {Mercury porosimetry}	15/1429	. . . Signal processing
15/0893	. . . {by measuring weight or volume of sorbed fluid, e.g. B.E.T. method}	15/1431	. . . . {the electronics being integrated with the analyser, e.g. hand-held devices for on-site investigation}
15/10	. Investigating individual particles	15/1433	. . . . . using image recognition
2015/1006	. . {for cytology}	15/1434	. . . Optical arrangements
15/1012	. . {Calibrating particle analysers; References therefor}	15/1436	. . . . {the optical arrangement forming an integrated apparatus with the sample container, e.g. a flow cell}
2015/1014	. . . {Constitution of reference particles}	2015/1438	. . . . . {Using two lasers in succession}
2015/1016	. . . {Particle flow simulating, e.g. liquid crystal cell}	2015/144	. . . . . {Imaging characterised by its optical setup}
2015/1019	. . {Associating Coulter-counter and optical flow cytometer [OFC]}	2015/1443	. . . . . {Auxiliary imaging}
2015/1021	. . {Measuring mass of individual particles}	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}
2015/1022	. . {Measurement of deformation of individual particles by non-optical means}	2015/1447	. . . . . {Spatial selection}
15/1023	. . {Microstructural devices for non-optical measurement}	2015/145	. . . . . {by pattern of light, e.g. fringe pattern}
2015/1024	. . {Counting particles by non-optical means}	2015/1452	. . . . . {Adjustment of focus; Alignment}
2015/1026	. . {Recognising analyser failures, e.g. bubbles; Quality control for particle analysers}	2015/1454	. . . . . {using phase shift or interference, e.g. for improving contrast}
2015/1027	. . {Determining speed or velocity of a particle}	15/1456	. . . {without spatial resolution of the texture or inner structure of the particle, e.g. processing of pulse signals}
2015/1028	. . {Sorting particles}	15/1459	. . . . {the analysis being performed on a sample stream}

- 2015/1461 {Coincidence detecting; Circuits therefor}
 15/1468 . . . {with spatial resolution of the texture or inner structure of the particle}

NOTE

{ References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group:

- counting objects disposed at random with size distinction [G06M 11/04](#)
- extraction of features from image for pattern recognition [G06V 10/40](#)
- specific image analysis method for the recognition of microscopic objects [G06V 20/69](#)
- image enhancement [G06T 5/00](#)
- image analysis [G06T 7/00](#)

- 15/147 {the analysis being performed on a sample stream}
 2015/1472 {with colour}
 2015/1477 . . . {Multiparameters}
 2015/1479 {Using diffuse illumination or excitation}
 2015/1481 . . . {Optical analysis of particles within droplets (sorting particles within droplets [G01N 15/1492](#))}

WARNING

Group [G01N 2015/1481](#) is impacted by reclassification into group [G01N 15/1492](#).

Groups [G01N 2015/1481](#) and [G01N 15/1492](#) should be considered in order to perform a complete search.

- 15/1484 . . . {microstructural devices}
 2015/1486 . . . {Counting the particles}
 2015/1488 . . . {Methods for deciding}
 15/149 . . . specially adapted for sorting particles, e.g. by their size or optical properties
 15/1492 within droplets

WARNING

Group [G01N 15/1492](#) is incomplete pending reclassification of documents from group [G01N 2015/1481](#).

Groups [G01N 2015/1481](#) and [G01N 15/1492](#) should be considered in order to perform a complete search.

- 2015/1493 . . . {Particle size}
 2015/1495 {Deformation of particles}
 2015/1497 . . . {Particle shape}

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

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

- 17/046 . . . {Means for supporting or introducing coupons}

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

- 19/02 . Measuring coefficient of friction between materials
 {(testing of tyres [G01M 17/02](#); determinations of friction coefficient used in vehicle braking or traction control systems [B60T 8/172](#))}
 19/04 . Measuring adhesive force between materials, e.g. of sealing tape, of coating
 19/06 . Investigating by removing material, e.g. spark-testing
 19/08 . Detecting presence of flaws or irregularities
 19/10 . Measuring moisture content, e.g. by measuring change in length of hygroscopic filament; Hygrometers

21/00 Investigating or analysing materials by the use of optical means, i.e. using sub-millimetre waves, infrared, visible or ultraviolet light
([G01N 3/00](#) - [G01N 19/00](#) take precedence)**NOTE**

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

- 21/01 . Arrangements or apparatus for facilitating the optical investigation
 2021/0106 . . {General arrangement of respective parts}
 2021/0112 . . . {Apparatus in one mechanical, optical or electronic block}
 2021/0118 . . . {Apparatus with remote processing}
 2021/0125 {with stored program or instructions}
 2021/0131 {being externally stored}
 2021/0137 {with PC or the like}
 2021/0143 {with internal and external computer}
 2021/015 . . . {Apparatus with interchangeable optical heads or interchangeable block of optics and detector}
 2021/0156 {with optics only in separate head, e.g. connection by optical fibres}
 2021/0162 . . {using microprocessors for control of a sequence of operations, e.g. test, powering, switching, processing}
 2021/0168 . . . {for the measurement cycle}
 2021/0175 . . . {for selecting operating means}
 2021/0181 . . {Memory or computer-assisted visual determination}
 2021/0187 . . {Mechanical sequence of operations}
 2021/0193 . . {the sample being taken from a stream or flow to the measurement cell}
 21/03 . . Cuvette constructions
 21/0303 . . . {Optical path conditioning in cuvettes, e.g. windows; adapted optical elements or systems; path modifying or adjustment ([G01N 21/031](#) - [G01N 21/15](#) take precedence)}
 2021/0307 {Insert part in cell}
 21/031 . . . {Multipass arrangements}
 2021/0314 {Double pass, autocollimated path}

21/0317	. . . {High pressure cuvettes; (G01N 21/0332 - G01N 21/15 take precedence) }	21/1702	. . {with opto-acoustic detection, e.g. for gases or analysing solids}
2021/0321	. . . {One time use cells, e.g. integrally moulded}	2021/1704	. . . {in gases}
2021/0325	. . . {Cells for testing reactions, e.g. containing reagents}	2021/1706	. . . {in solids}
2021/0328	. . . . {Arrangement of two or more cells having different functions for the measurement of reactions}	2021/1708	. . . {with piezotransducers}
21/0332	. . . {with temperature control (control of temperature G05D 23/00; cryostats F17C 3/08) }	21/171	. . {with calorimetric detection, e.g. with thermal lens detection}
2021/0335	. . . . {Refrigeration of cells; Cold stages}	2021/1712	. . . {Thermal lens, mirage effect}
2021/0339	. . . {Holders for solids, powders}	2021/1714	. . . {Photothermal radiometry with measurement of emission}
2021/0342	. . . {Solid sample being immersed, e.g. equiindex fluid}	21/1717	. . {with a modulation of one or more physical properties of the sample during the optical investigation, e.g. electro-reflectance}
2021/0346	. . . {Capillary cells; Microcells}	2021/1719	. . . {Carrier modulation in semiconductors}
2021/035	. . . . {Supports for sample drops}	2021/1721	. . . {Electromodulation}
2021/0353	. . . . {Conveyor of successive sample drops}	2021/1723	. . . {Fluid modulation}
2021/0357	. . . {Sets of cuvettes}	2021/1725	. . . {Modulation of properties by light, e.g. photorefectance}
2021/036	. . . {transformable, modifiable}	2021/1727	. . . {Magnetomodulation}
2021/0364	. . . {flexible, compressible}	2021/1729	. . . {Piezomodulation}
2021/0367	. . . {Supports of cells, e.g. pivotable}	2021/1731	. . . {Temperature modulation}
2021/0371	. . . . {Supports combined with sample intake}	2021/1734	. . {Sequential different kinds of measurements; Combining two or more methods}
2021/0375	. . . . {Slidable cells}	2021/1736	. . . {with two or more light sources}
2021/0378	. . . {Shapes}	2021/1738	. . {Optionally different kinds of measurements; Method being valid for different kinds of measurement}
2021/0382	. . . . {Frustoconical, tapered cell}	2021/174	. . . {either absorption-reflection or emission-fluorescence}
2021/0385	. . . {Diffusing membrane; Semipermeable membrane}	2021/1742	. . . {either absorption or reflection}
2021/0389	. . . {Windows}	2021/1744	. . . {either absorption or scatter}
2021/0392	. . . . {Nonplanar windows}	2021/1746	. . {Method using tracers}
2021/0396	. . . . {Oblique incidence}	2021/1748	. . {Comparative step being essential in the method}
21/05	. . . Flow-through cuvettes (G01N 21/09 takes precedence; handling fluid samples G01N 1/10)	2021/1751	. . . {Constructive features therefore, e.g. using two measurement cells}
2021/052	. . . . {Tubular type; cavity type; multireflective}	2021/1753	. . . . {and using two light sources}
2021/054	. . . . {Bubble trap; Debubbling}	2021/1755	. . . . {and using two apparatus or two probes}
2021/056	. . . . {Laminated construction}	2021/1757	. . {Time modulation of light being essential to the method of light modification, e.g. using single detector}
2021/058	. . . . {Flat flow cell}	2021/1759	. . . {Jittering, dithering, optical path modulation}
21/07	. . . Centrifugal type cuvettes (G01N 21/09 takes precedence)	2021/1761	. . {A physical transformation being implied in the method, e.g. a phase change}
21/09	. . . adapted to resist hostile environments or corrosive or abrasive materials	2021/1763	. . . {Gas to liquid phase change}
21/11	. . Filling or emptying of cuvettes	2021/1765	. . {Method using an image detector and processing of image signal}
2021/115	. . . {Washing; Purging}	2021/1768	. . . {using photographic film}
21/13	. . Moving of cuvettes or solid samples to or from the investigating station {(handling materials for automatic analysis G01N 35/00)}	2021/177	. . . {Detector of the video camera type}
2021/135	. . . {Sample holder displaceable}	2021/1772	. . . . {Array detector}
21/15	. . Preventing contamination of the components of the optical system or obstruction of the light path	2021/1774	. . . . {Line array detector}
2021/151	. . . {Gas blown}	2021/1776	. . . . {Colour camera}
2021/152	. . . {Scraping; Brushing; Moving band}	2021/1778	. . . . {IIT [intensified image tube]}
2021/154	. . . {Ultrasonic cleaning}	2021/178	. . {Methods for obtaining spatial resolution of the property being measured}
2021/155	. . . {Monitoring cleanness of window, lens, or other parts}	2021/1782	. . . {In-depth resolution}
2021/157	. . . . {Monitoring by optical means}	2021/1785	. . . {Three dimensional}
2021/158	. . . {Eliminating condensation}	2021/1787	. . . . {Tomographic, i.e. computerised reconstruction from projective measurements}
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)	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}	2021/3137	. . . . . {with selection of wavelengths after the sample}
21/19	. . Dichroism	21/314	. . . . {with comparison of measurements at specific and non-specific wavelengths (dual wavelength spectrometry G01J 3/427)}
21/21	. . Polarisation-affecting properties (G01N 21/19 takes precedence)	2021/3144	. . . . . {for oxymetry}
21/211	. . . {Ellipsometry (optical thickness measurement G01B 11/06)}	2021/3148	. . . . . {using three or more wavelengths}
2021/212	. . . . {Arrangement with total internal reflection}	21/3151	. . . . . {using two sources of radiation of different wavelengths (G01N 21/33 - G01N 21/39 take precedence)}
2021/213	. . . . {Spectrometric ellipsometry}	2021/3155	. . . . . {Measuring in two spectral ranges, e.g. UV and visible}
2021/214	. . . . {Variangle incidence arrangement}	2021/3159	. . . . . {Special features of multiplexing circuits}
2021/215	. . . . {Brewster incidence arrangement}	2021/3162	. . . . . {with offset adjustment between filters}
2021/216	. . . {using circular polarised light}	2021/3166	. . . . . {using separate detectors and filters}
2021/217	. . . {Measuring depolarisation or comparing polarised and depolarised parts of light}	2021/317	. . . . . {Special constructive features}
2021/218	. . . {Measuring properties of electrooptical or magneto-optical media}	2021/3174	. . . . . {Filter wheel}
21/23	. . . Bi-refrignence	2021/3177	. . . . . {Use of spatially separated filters in simultaneous way}
21/25	. . Colour; Spectral properties, i.e. comparison of effect of material on the light at two or more different wavelengths or wavelength bands	2021/3181	. . . . . {using LEDs}
21/251	. . . {Colorimeters; Construction thereof}	2021/3185	. . . . . {typically monochromatic or band-limited}
21/253	. . . . {for batch operation, i.e. multisample apparatus (analytical automats G01N 35/00)}	2021/3188	. . . . . {band-limited}
21/255	. . . {Details, e.g. use of specially adapted sources, lighting or optical systems}	2021/3192	. . . . . {Absorption edge variation is measured}
21/256	. . . {Arrangements using two alternating lights and one detector}	2021/3196	. . . . . {Correlating located peaks in spectrum with reference data, e.g. fingerprint data}
2021/258	. . . {Surface plasmon spectroscopy, e.g. micro- or nanoparticles in suspension}	21/33	. . . . . using ultraviolet light (G01N 21/39 takes precedence)
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)	2021/335	. . . . . {Vacuum UV}
21/272	. . . . {for following a reaction, e.g. for determining photometrically a reaction rate (photometric cinetic analysis)}	21/35	. . . . . using infrared light (G01N 21/39 takes precedence)
21/274	. . . . {Calibration, base line adjustment, drift correction}	21/3504	. . . . . for analysing gases, e.g. multi-gas analysis
21/276	. . . . . {with alternation of sample and standard in optical path}	2021/3509	. . . . . {Correlation method, e.g. one beam alternating in correlator/sample field}
21/278	. . . . . {Constitution of standards}	2021/3513	. . . . . {Open path with an instrumental source}
21/29	. . . using visual detection (G01N 21/31 takes precedence)	21/3518	. . . . . Devices using gas filter correlation techniques; Devices using gas pressure modulation techniques
21/293	. . . . {with colour charts, graduated scales or turrets}	NOTE This group also covers devices without instrumental sources, e.g. radiometric-type devices using ambient infrared light.	
2021/296	. . . . {Visually measuring scintillation effect}	2021/3522	. . . . . {balancing by two filters on two detectors}
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)	2021/3527	. . . . . {and using one filter cell as attenuator}
21/3103	. . . . {Atomic absorption analysis}	2021/3531	. . . . . {without instrumental source, i.e. radiometric}
2021/3107	. . . . . {Cold vapor, e.g. determination of Hg}	2021/3536	. . . . . {using modulation of pressure or density}
2021/3111	. . . . . {using Zeeman split}	2021/354	. . . . . {Hygrometry of gases}
2021/3114	. . . . . {Multi-element AAS arrangements}	2021/3545	. . . . . {Disposition for compensating effect of interfering gases}
2021/3118	. . . . . {Commutating sources, e.g. line source/ broad source, chopping for comparison of broad/narrow regimes}	2021/355	. . . . . {by using a third optical path, e.g. interference cuvette}
2021/3122	. . . . . {using a broad source with a monochromator}	21/3554	. . . . . for determining moisture content
2021/3125	. . . . {Measuring the absorption by excited molecules}	21/3559	. . . . . in sheets, e.g. in paper
2021/3129	. . . . {Determining multicomponents by multiwavelength light}	21/3563	. . . . . for analysing solids; Preparation of samples therefor
2021/3133	. . . . . {with selection of wavelengths before the sample}	2021/3568	. . . . . {applied to semiconductors, e.g. Silicon}

2021/3572	. . . . .	{Preparation of samples, e.g. salt matrices}	21/455	. . . . .	{Schlieren methods, e.g. for gradient index determination; Shadowgraph}
21/3577	. . . . .	for analysing liquids, e.g. polluted water	2021/456	. . . . .	{Moire deflectometry}
21/3581	. . . . .	using far infrared light; using Terahertz radiation	2021/458	. . . . .	{using interferential sensor, e.g. sensor fibre, possibly on optical waveguide}
21/3586	. . . . .	by Terahertz time domain spectroscopy [THz-TDS]	21/47	. . . . .	Scattering, i.e. diffuse reflection (G01N 21/25 , G01N 21/41 take precedence G01N 21/55 takes precedence)
21/359	. . . . .	using near infrared light	2021/4702	. . . . .	{Global scatter; Total scatter, excluding reflections}
2021/3595	. . . . .	{using FTIR}	2021/4704	. . . . .	{Angular selective}
21/37	. . . . .	using pneumatic detection (opto-acoustic detection G01N 21/1702)	2021/4707	. . . . .	{Forward scatter; Low angle scatter}
21/39	. . . . .	using tunable lasers	2021/4709	. . . . .	{Backscatter}
2021/391	. . . . .	{Intracavity sample}	2021/4711	. . . . .	{Multiangle measurement}
2021/392	. . . . .	{Measuring reradiation, e.g. fluorescence, backscatter}	2021/4714	. . . . .	{Continuous plural angles}
2021/393	. . . . .	{and using a spectral variation of the interaction of the laser beam and the sample}	2021/4716	. . . . .	{Using a ring of sensors, or a combination of diaphragm and sensors; Annular sensor}
2021/394	. . . . .	{DIAL method}	2021/4719	. . . . .	{using a optical fibre array}
2021/395	. . . . .	{using a topographic target}	2021/4721	. . . . .	{using a PSD}
2021/396	. . . . .	{Type of laser source}	2021/4723	. . . . .	{Scanning scatter angles}
2021/397	. . . . .	{Dye laser}	2021/4726	. . . . .	{Detecting scatter at 90°}
2021/398	. . . . .	{CO ₂ laser}	2021/4728	. . . . .	{Optical definition of scattering volume}
2021/399	. . . . .	{Diode laser}	2021/473	. . . . .	{Compensating for unwanted scatter, e.g. reliefs, marks}
21/41	. . . . .	Refractivity; Phase-affecting properties, e.g. optical path length (G01N 21/21 takes precedence)	2021/4733	. . . . .	{Discriminating different types of scatterers}
2021/4106	. . . . .	{Atmospheric distortion; Turbulence}	2021/4735	. . . . .	{Solid samples, e.g. paper, glass}
2021/4113	. . . . .	{Atmospheric dispersion}	21/4738	. . . . .	{Diffuse reflection (precedence is given to G01N 21/55 - G01N 21/57 if specular component is taken into consideration), e.g. also for testing fluids, fibrous materials}
21/412	. . . . .	{Index profiling of optical fibres}	21/474	. . . . .	{Details of optical heads therefor, e.g. using optical fibres}
2021/4126	. . . . .	{Index of thin films}	2021/4742	. . . . .	{comprising optical fibres}
21/4133	. . . . .	{Refractometers, e.g. differential}	2021/4745	. . . . .	{Fused bundle, i.e. for backscatter}
2021/414	. . . . .	{Correcting temperature effect in refractometers}	2021/4747	. . . . .	{Concentric bundles}
2021/4146	. . . . .	{Differential cell arrangements}	2021/475	. . . . .	{Bifurcated bundle}
2021/4153	. . . . .	{Measuring the deflection of light in refractometers}	2021/4752	. . . . .	{Geometry}
2021/416	. . . . .	{Visualising flow by index measurement}	2021/4754	. . . . .	{Diffuse illumination}
2021/4166	. . . . .	{Methods effecting a waveguide mode enhancement through the property being measured}	2021/4757	. . . . .	{Geometry 0/45° or 45/0°}
2021/4173	. . . . .	{Phase distribution}	2021/4759	. . . . .	{Annular illumination}
2021/418	. . . . .	{Frequency/phase diagrams}	2021/4761	. . . . .	{Mirror arrangements, e.g. in IR range}
2021/4186	. . . . .	{Phase modulation imaging}	2021/4764	. . . . .	{Special kinds of physical applications}
2021/4193	. . . . .	{using a PSD}	2021/4766	. . . . .	{Sample containing fluorescent brighteners}
21/43	. . . . .	by measuring critical angle	2021/4769	. . . . .	{Fluid samples, e.g. slurries, granulates; Compressible powdery of fibrous samples}
21/431	. . . . .	{Dip refractometers, e.g. using optical fibres}	2021/4771	. . . . .	{Matte surfaces with reflecting particles}
2021/432	. . . . .	{comprising optical fibres}	2021/4773	. . . . .	{Partly or totally translucent samples}
2021/433	. . . . .	{with an unclad part on the fibre}	2021/4776	. . . . .	{Miscellaneous in diffuse reflection devices}
2021/434	. . . . .	{Dipping block in contact with sample, e.g. prism}	2021/4778	. . . . .	{Correcting variations in front distance}
2021/435	. . . . .	{Sensing drops on the contact surface}	2021/478	. . . . .	{Application in testing analytical test strips}
2021/436	. . . . .	{Sensing resonant reflection}	2021/4783	. . . . .	{Examining under varying incidence; Angularly adjustable head}
2021/437	. . . . .	{with investigation of angle}	21/4785	. . . . .	{Standardising light scatter apparatus; Standards therefor}
2021/438	. . . . .	{with investigation of wavelength}	21/4788	. . . . .	{Diffraction (for sizing particles G01N 15/0205)}
21/45	. . . . .	using interferometric methods; using Schlieren methods	2021/479	. . . . .	{Speckle}
2021/451	. . . . .	{for determining the optical absorption}	2021/4792	. . . . .	{Polarisation of scatter light}
21/453	. . . . .	{Holographic interferometry (for dimensional measurements G01B 9/021 - G01B 9/029)}			

21/4795	. . . {spatially resolved investigating of object in scattering medium (in vivo A61B)}	2021/5969	. . . . {Scanning of a tube, a cuvette, a volume of sample}
2021/4797	. . . . {time resolved, e.g. analysis of ballistic photons}	2021/5973	. . . . {where the cuvette or tube is moved}
21/49	. . . within a body or fluid	2021/5976	. . . . {Image projected and scanning projected image}
2021/495	. . . . {the fluid being adsorbed, e.g. in porous medium}	2021/598	. . . . {Features of mounting, adjusting}
21/51	. . . . inside a container, e.g. in an ampoule (G01N 21/53 takes precedence)	2021/5984	. . . . {height adjustable}
2021/513	. . . . {Cuvettes for scattering measurements}	2021/5988	. . . . {Fluid mounting or the like, e.g. vortex}
2021/516	. . . . {Multiple excitation of scattering medium, e.g. by retro-reflected or multiply reflected excitation rays}	2021/5992	. . . . {Double pass}
21/53	. . . . within a flowing fluid, e.g. smoke	2021/5996	. . . . {Positioning the head}
21/532	. . . . {with measurement of scattering and transmission}	21/61	. . . Non-dispersive gas analysers (G01N 21/3504 takes precedence)
21/534	. . . . {by measuring transmission alone, i.e. determining opacity}	21/62	. Systems in which the material investigated is excited whereby it emits light or causes a change in wavelength of the incident light
2021/536	. . . . {Measurement device mounted at stack}	2021/625	. . {Excitation by energised particles such as metastable molecules}
21/538	. . . . {for determining atmospheric attenuation and visibility}	21/63	. . optically excited
21/55	. . Specular reflectivity	21/631	. . . {using photolysis and investigating photolysed fragments}
2021/551	. . . {Retroreflectance}	2021/632	. . . . {Predissociation, e.g. for fluorescence of transient excited radicals}
21/552	. . . Attenuated total reflection	2021/633	. . . {Photoinduced grating used for analysis}
21/553	. . . . {and using surface plasmons (fluorescence excitation G01N 21/648; enhanced Raman G01N 21/658)}	2021/634	. . . {Photochromic material analysis}
21/554	. . . . {detecting the surface plasmon resonance of nanostructured metals, e.g. localised surface plasmon resonance}	2021/635	. . . {Photosynthetic material analysis, e.g. chlorophyll}
2021/555	. . . {Measuring total reflection power, i.e. scattering and specular}	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)}
2021/556	. . . {Measuring separately scattering and specular}	2021/637	. . . . {Lasing effect used for analysis}
2021/557	. . . {Detecting specular reflective parts on sample}	2021/638	. . . . {Brillouin effect, e.g. stimulated Brillouin effect}
2021/558	. . . {Measuring reflectivity and transmission}	21/64	. . . Fluorescence; Phosphorescence
2021/559	. . . {Determining variation of specular reflection within diffusively reflecting sample}	21/6402	. . . . {Atomic fluorescence; Laser induced fluorescence}
21/57	. . . Measuring gloss	21/6404	. . . . {Atomic fluorescence}
2021/575	. . . . {Photogoniometering}	2021/6406	. . . . {multi-element}
21/59	. . Transmissivity (G01N 21/25 takes precedence)	21/6408	. . . . {with measurement of decay time, time resolved fluorescence}
2021/5903	. . . {using surface plasmon resonance [SPR], e.g. extraordinary optical transmission [EOT]}	2021/641	. . . . {Phosphorimetry, gated}
21/5907	. . . {Densitometers}	2021/6413	. . . . {Distinction short and delayed fluorescence or phosphorescence}
21/5911	. . . . {of the scanning type (scanning per se G02B)}	2021/6415	. . . . {with two excitations, e.g. strong pump/probe flash}
2021/5915	. . . . {Processing scan data in densitometry}	2021/6417	. . . . {Spectrofluorimetric devices}
2021/5919	. . . . {Determining total density of a zone}	2021/6419	. . . . {Excitation at two or more wavelengths}
2021/5923	. . . . {Determining zones of density; quantitating spots}	2021/6421	. . . . {Measuring at two or more wavelengths}
2021/5926	. . . . {Isodensitometers}	2021/6423	. . . . {Spectral mapping, video display}
2021/593	. . . . {Correcting from the background density}	2021/6426	. . . . {Determining Fraunhofer lines}
2021/5934	. . . . {Averaging on a zone}	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)}
2021/5938	. . . . {Features of monitor, display}	21/643	. . . . {non-biological material}
2021/5942	. . . . {for dot area ratio in printing applications}	2021/6432	. . . . {Quenching}
2021/5946	. . . . {for binary signal}	2021/6434	. . . . {Optrodes}
2021/5949	. . . . {Correcting nonlinearity of signal, e.g. in measurement of photomedium}	2021/6436	. . . . {for analysing tapes}
2021/5953	. . . . {for detecting a spatial spectrum}	2021/6439	. . . . {with indicators, stains, dyes, tags, labels, marks}
2021/5957	. . . . {using an image detector type detector, e.g. CCD}	2021/6441	. . . . {with two or more labels}
2021/5961	. . . . {using arrays of sources and detectors}		
2021/5965	. . . . {using selected detectors in an array}		

2021/6443	. . . . .	{Fluorimetric titration}	2021/725	. . . . .	{for determining of metalloids, using Beilstein type reaction}
21/6445	. . . . .	{Measuring fluorescence polarisation}	21/73	. . . . .	using plasma burners or torches
21/6447	. . . . .	{by visual observation}	21/74	. . . . .	using flameless atomising, e.g. graphite furnaces
21/645	. . . . .	{Specially adapted constructive features of fluorimeters}	2021/745	. . . . .	{Control of temperature, heating, ashing}
21/6452	. . . . .	{Individual samples arranged in a regular 2D-array, e.g. multiwell plates}	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)
21/6454	. . . . .	{using an integrated detector array}	2021/751	. . . . .	{Comparing reactive/non reactive substances}
21/6456	. . . . .	{Spatial resolved fluorescence measurements; Imaging}	2021/752	. . . . .	{Devices comprising reaction zones}
21/6458	. . . . .	{Fluorescence microscopy (fluorescence microscopes per se G02B 21/0076 and G02B 21/16)}	2021/754	. . . . .	{Reagent flow and intermittent injection of sample or vice versa}
2021/646	. . . . .	{Detecting fluorescent inhomogeneities at a position, e.g. for detecting defects}	2021/755	. . . . .	{Comparing readings with/without reagents, or before/after reaction}
2021/6463	. . . . .	{Optics}	2021/757	. . . . .	{using immobilised reagents}
2021/6465	. . . . .	{Angular discrimination}	2021/758	. . . . .	{using reversible reaction}
2021/6467	. . . . .	{Axial flow and illumination}	21/76	. . . . .	Chemiluminescence; Bioluminescence
2021/6469	. . . . .	{Cavity, e.g. ellipsoid}	21/763	. . . . .	{Bioluminescence}
2021/6471	. . . . .	{Special filters, filter wheel}	21/766	. . . . .	{of gases}
2021/6473	. . . . .	{In-line geometry}	21/77	. . . . .	by observing the effect on a chemical indicator
2021/6476	. . . . .	{Front end, i.e. backscatter, geometry}	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)}
2021/6478	. . . . .	{Special lenses}	2021/7706	. . . . .	{Reagent provision}
21/648	. . . . .	{using evanescent coupling or surface plasmon coupling for the excitation of fluorescence}	2021/7709	. . . . .	{Distributed reagent, e.g. over length of guide}
2021/6482	. . . . .	{Sample cells, cuvettes}	2021/7713	. . . . .	{in core}
2021/6484	. . . . .	{Optical fibres}	2021/7716	. . . . .	{in cladding}
21/6486	. . . . .	{Measuring fluorescence of biological material, e.g. DNA, RNA, cells (G01N 21/6428 takes precedence)}	2021/772	. . . . .	{Tip coated light guide}
21/6489	. . . . .	{Photoluminescence of semiconductors}	2021/7723	. . . . .	{Swelling part, also for adsorption sensor, i.e. without chemical reaction}
2021/6491	. . . . .	{Measuring fluorescence and transmission; Correcting inner filter effect}	2021/7726	. . . . .	{Porous glass}
2021/6493	. . . . .	{by alternating fluorescence/transmission or fluorescence/reflection}	2021/773	. . . . .	{Porous polymer jacket; Polymer matrix with indicator}
2021/6495	. . . . .	{Miscellaneous methods}	2021/7733	. . . . .	{Reservoir, liquid reagent}
2021/6497	. . . . .	{Miscellaneous applications}	2021/7736	. . . . .	{exposed, cladding free}
21/65	. . . . .	Raman scattering	21/774	. . . . .	{the reagent being on a grating or periodic structure}
2021/651	. . . . .	{Cuvettes therefore}	21/7743	. . . . .	{the reagent-coated grating coupling light in or out of the waveguide}
2021/653	. . . . .	{Coherent methods [CARS]}	21/7746	. . . . .	{the waveguide coupled to a cavity resonator}
2021/655	. . . . .	{Stimulated Raman}	2021/775	. . . . .	{Indicator and selective membrane}
2021/656	. . . . .	{Raman microprobe}	2021/7753	. . . . .	{Reagent layer on photoelectrical transducer}
21/658	. . . . .	{enhancement Raman, e.g. surface plasmons}	2021/7756	. . . . .	{Sensor type}
21/66	. . . . .	electrically excited, e.g. electroluminescence	2021/7759	. . . . .	{Dipstick; Test strip}
21/67	. . . . .	using electric arcs or discharges	2021/7763	. . . . .	{Sample through flow}
21/68	. . . . .	using high frequency electric fields	2021/7766	. . . . .	{Capillary fill}
21/69	. . . . .	specially adapted for fluids {, e.g. molten metal}	2021/7769	. . . . .	{Measurement method of reaction-produced change in sensor}
2021/695	. . . . .	{Molten metals}	2021/7773	. . . . .	{Reflection}
21/70	. . . . .	mechanically excited, e.g. triboluminescence	2021/7776	. . . . .	{Index}
21/71	. . . . .	thermally excited	2021/7779	. . . . .	{interferometric}
2021/712	. . . . .	{using formation of volatile hydride}	2021/7783	. . . . .	{Transmission, loss}
21/714	. . . . .	{Sample nebulisers for flame burners or plasma burners (nebulizers per se B05B)}	2021/7786	. . . . .	{Fluorescence}
21/716	. . . . .	{by measuring the radiation emitted by a test object treated by combustion gases for investigating the composition of gas mixtures}	2021/7789	. . . . .	{Cavity or resonator}
21/718	. . . . .	{Laser microanalysis, i.e. with formation of sample plasma}	2021/7793	. . . . .	{Sensor comprising plural indicators}
21/72	. . . . .	using flame burners	2021/7796	. . . . .	{Special mountings, packaging of indicators}

21/78	. . .	producing a change of colour	2021/8645	. . .	{using multidetectors, detector array}
21/783	. . . .	{for analysing gases}	2021/8654	. . .	{Mechanical support; Mounting of sheet}
2021/786	. . . .	{with auxiliary heating for reaction}	2021/8663	. . .	{Paper, e.g. gloss, moisture content}
21/79	. . . .	Photometric titration	2021/8672	. . . .	{Paper formation parameter}
21/80	. . . .	Indicating pH value	2021/8681	. . . .	{Paper fibre orientation}
21/81	. . . .	Indicating humidity	2021/869	. . .	{Plastics or polymeric material, e.g. polymers orientation in plastic, adhesive imprinted band}
21/82	. . .	producing a precipitate or turbidity	21/87	. .	Investigating jewels (G01N 21/88 takes precedence)
2021/825	. . . .	{Agglutination}	21/88	. .	Investigating the presence of flaws or contamination
21/83	. . . .	Turbidimetric titration	21/8803	. . .	{Visual inspection (measuring projectors G01B 9/08)}
21/84	. .	Systems specially adapted for particular applications	21/8806	. . .	{Specially adapted optical and illumination features}
2021/8405	. .	{Application to two-phase or mixed materials, e.g. gas dissolved in liquids}	2021/8809	. . . .	{Adjustment for highlighting flaws}
2021/8411	. .	{Application to online plant, process monitoring}	2021/8812	. . . .	{Diffuse illumination, e.g. "sky"}
2021/8416	. . .	{and process controlling, not otherwise provided for}	2021/8816	. . . .	{by using multiple sources, e.g. LEDs}
21/8422	. .	{Investigating thin films, e.g. matrix isolation method}	2021/8819	. . . .	{by using retroreflecting screen}
2021/8427	. . .	{Coatings}	2021/8822	. . . .	{Dark field detection}
2021/8433	. . . .	{Comparing coated/uncoated parts}	2021/8825	. . . .	{Separate detection of dark field and bright field}
2021/8438	. . .	{Multilayers}	2021/8829	. . . .	{Shadow projection or structured background, e.g. for deflectometry}
2021/8444	. .	{Fibrous material}	2021/8832	. . . .	{Structured background, e.g. for transparent objects}
2021/845	. .	{Objects on a conveyor}	2021/8835	. . . .	{Adjustable illumination, e.g. software adjustable screen}
2021/8455	. . .	{and using position detectors}	2021/8838	. . . .	{Stroboscopic illumination; synchronised illumination}
2021/8461	. .	{Investigating impurities in semiconductor, e.g. Silicon}	2021/8841	. . . .	{Illumination and detection on two sides of object}
2021/8466	. .	{Investigation of vegetal material, e.g. leaves, plants, fruits}	2021/8845	. . . .	{Multiple wavelengths of illumination or detection}
2021/8472	. .	{Investigation of composite materials}	2021/8848	. . . .	{Polarisation of light}
2021/8477	. .	{Investigating crystals, e.g. liquid crystals}	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)}
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)}	2021/8854	. . . .	{Grading and classifying of flaws}
2021/8488	. . .	{the band presenting reference patches}	2021/8858	. . . .	{Flaw counting}
2021/8494	. . .	{Measuring or storing parameters of the band}	2021/8861	. . . .	{Determining coordinates of flaws}
21/85	. .	Investigating moving fluids or granular solids	2021/8864	. . . .	{Mapping zones of defects}
21/8507	. . .	{Probe photometers, i.e. with optical measuring part dipped into fluid sample}	2021/8867	. . . .	{using sequentially two or more inspection runs, e.g. coarse and fine, or detecting then analysing}
2021/8514	. . . .	{with immersed mirror}	2021/887	. . . .	{the measurements made in two or more directions, angles, positions}
2021/8521	. . . .	{with a combination mirror cell-cuvette}	2021/8874	. . . .	{Taking dimensions of defect into account}
2021/8528	. . . .	{Immersed light conductor}	2021/8877	. . . .	{Proximity analysis, local statistics}
2021/8535	. . . .	{presenting a cut}	2021/888	. . . .	{Marking defects}
2021/8542	. . . .	{presenting an exposed part of the core}	2021/8883	. . . .	{involving the calculation of gauges, generating models}
2021/855	. . . .	{Underground probe, e.g. with provision of a penetration tool}	2021/8887	. . . .	{based on image processing techniques}
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}			
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}			

2021/889	. . . . .	{providing a bare video image, i.e. without visual measurement aids}	21/9036	. . . . .	{using arrays of emitters or receivers}
2021/8893	. . . . .	{providing a video image and a processed signal for helping visual decision}	21/9045	. . . . .	{Inspection of ornamented or stippled container walls}
2021/8896	. . . . .	{Circuits specially adapted for system specific signal conditioning}	21/9054	. . . . .	{Inspection of sealing surface and container finish}
21/89	. . . . .	in moving material, e.g. running paper or textiles (G01N 21/90 , G01N 21/91 , G01N 21/94 take precedence)	2021/9063	. . . . .	{Hot-end container inspection}
21/8901	. . . . .	{Optical details; Scanning details (per se G02B)}	21/9072	. . . . .	{with illumination or detection from inside the container}
2021/8902	. . . . .	{Anamorphic spot}	21/9081	. . . . .	{Inspection especially designed for plastic containers, e.g. preforms}
21/8903	. . . . .	{using a multiple detector array}	21/909	. . . . .	{in opaque containers or opaque container parts, e.g. cans, tins, caps, labels}
2021/8904	. . . . .	{Sheetwide light conductor on detecting side, e.g. fluorescing light rod}	21/91	. . . . .	using penetration of dyes, e.g. fluorescent ink
2021/8905	. . . . .	{Directional selective optics, e.g. slits, spatial filters}	21/93	. . . . .	Detection standards; Calibrating {baseline adjustment, drift correction}
2021/8907	. . . . .	{Cylindrical optics}	2021/933	. . . . .	{Adjusting baseline or gain (also for web inspection)}
2021/8908	. . . . .	{Strip illuminator, e.g. light tube}	2021/936	. . . . .	{Adjusting threshold, e.g. by way of moving average}
2021/8909	. . . . .	{Scan signal processing specially adapted for inspection of running sheets}	21/94	. . . . .	Investigating contamination, e.g. dust (G01N 21/85 takes precedence)
2021/891	. . . . .	{Edge discrimination, e.g. by signal filtering}	2021/945	. . . . .	{Liquid or solid deposits of macroscopic size on surfaces, e.g. drops, films, or clustered contaminants}
2021/8911	. . . . .	{Setting scan-width signals}	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)
2021/8912	. . . . .	{Processing using lane subdivision}	21/9501	. . . . .	{Semiconductor wafers (manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10)}
21/8914	. . . . .	{characterised by the material examined}	21/9503	. . . . .	{Wafer edge inspection}
21/8915	. . . . .	{non-woven textile material}	21/9505	. . . . .	{Wafer internal defects, e.g. microcracks}
21/8916	. . . . .	{for testing photographic material}	21/9506	. . . . .	{Optical discs}
2021/8917	. . . . .	{Paper, also undulated}	21/9508	. . . . .	{Capsules; Tablets}
2021/8918	. . . . .	{Metal}	21/951	. . . . .	{Balls}
21/892	. . . . .	characterised by the flaw, defect or object feature examined	2021/9511	. . . . .	{Optical elements other than lenses, e.g. mirrors}
21/8921	. . . . .	{Streaks}	2021/9513	. . . . .	{Liquid crystal panels}
21/8922	. . . . .	{Periodic flaws}	21/9515	. . . . .	{Objects of complex shape, e.g. examined with use of a surface follower device (measuring contours and curvatures G01B 11/24)}
2021/8924	. . . . .	{Dents; Relief flaws}	2021/9516	. . . . .	{whereby geometrical features are being masked}
2021/8925	. . . . .	{Inclusions}	2021/9518	. . . . .	{using a surface follower, e.g. robot}
2021/8927	. . . . .	{Defects in a structured web}	21/952	. . . . .	Inspecting the exterior surface of cylindrical bodies or wires (G01N 21/956 takes precedence)
2021/8928	. . . . .	{Haze defects, i.e. with a part of diffracted light}	21/954	. . . . .	Inspecting the inner surface of hollow bodies, e.g. bores
21/894	. . . . .	Pinholes	2021/9542	. . . . .	{using a probe}
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)}	2021/9544	. . . . .	{with emitter and receiver on the probe}
2021/8962	. . . . .	{for detecting separately opaque flaws and refracting flaws}	2021/9546	. . . . .	{with remote light transmitting, e.g. optical fibres}
2021/8965	. . . . .	{using slant illumination, using internally reflected light}	2021/9548	. . . . .	{Scanning the interior of a cylinder}
2021/8967	. . . . .	{Discriminating defects on opposite sides or at different depths of sheet or rod}	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)}
21/898	. . . . .	Irregularities in textured or patterned surfaces, e.g. textiles, wood	21/95607	. . . . .	{using a comparative method}
21/8983	. . . . .	{for testing textile webs, i.e. woven material}			
21/8986	. . . . .	{Wood}			
21/90	. . . . .	in a container or its contents (G01N 21/91 takes precedence)			
21/9009	. . . . .	{Non-optical constructional details affecting optical inspection, e.g. cleaning mechanisms for optical parts, vibration reduction}			
21/9018	. . . . .	{Dirt detection in containers}			
21/9027	. . . . .	{in containers after filling}			

2021/95615	. . . . . {with stored comparison signal}	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
21/95623	. . . . . {using a spatial filtering method (per se G02B)}	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)
2021/9563	. . . . . {and suppressing pattern images}	23/20016	. . . Goniometers
2021/95638	. . . . . {for PCB's}	23/20025	. . . Sample holders or supports therefor
2021/95646	. . . . . {Soldering}	23/20033	. . . . provided with temperature control or heating means
2021/95653	. . . . . {Through-holes}	23/20041	. . . . for high pressure testing, e.g. anvil cells
2021/95661	. . . . . {for leads, e.g. position, curvature}	23/2005	. . . Preparation of powder samples therefor
2021/95669	. . . . . {for solder coating, coverage}	23/20058	. . Measuring diffraction of electrons, e.g. low energy electron diffraction [LEED] method or reflection high energy electron diffraction [RHEED] method
2021/95676	. . . . . {Masks, reticles, shadow masks}	23/20066	. . Measuring inelastic scatter of gamma rays, e.g. Compton effect
21/95684	. . . . . {Patterns showing highly reflecting parts, e.g. metallic elements}	23/20075	. . {by measuring interferences of X-rays, e.g. Borrmann effect}
21/95692	. . . . . {Patterns showing hole parts, e.g. honeycomb filtering structures}	23/20083	. . {by using a combination of at least two measurements at least one being a transmission measurement and one a scatter measurement}
21/958	. . . . Inspecting transparent materials {or objects, e.g. windscreens (for conveyed flat sheet or rod G01N 21/896)}	23/20091	. . Measuring the energy-dispersion spectrum [EDS] of diffracted radiation
2021/9583	. . . . . {Lenses}	23/201	. . by measuring small-angle scattering
2021/9586	. . . . . {Windscreens}	23/202	. . . using neutrons
22/00	Investigating or analysing materials by the use of microwaves or radio waves, i.e. electromagnetic waves with a wavelength of one millimetre or more (G01N 3/00 - G01N 17/00, G01N 24/00 take precedence)	23/203	. . Measuring back scattering
22/005	. {and using Stark effect modulation}	23/204	. . . using neutrons
22/02	. Investigating the presence of flaws	23/205	. . using diffraction cameras
22/04	. Investigating moisture content	23/2055	. . Analysing diffraction patterns
23/00	Investigating or analysing materials by the use of wave or particle radiation, e.g. X-rays or neutrons, not covered by groups G01N 3/00 - G01N 17/00, G01N 21/00 or G01N 22/00	23/207	. . Diffractometry using detectors, e.g. using a probe in a central position and one or more displaceable detectors in circumferential positions
23/005	. {by using neutrons (G01N 23/02 - G01N 23/227 take precedence)}	23/2073	. . . {using neutron detectors (neutron spectrometry G01T 3/00)}
23/02	. by transmitting the radiation through the material	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}
23/025	. . {using neutrons}	23/22	. by measuring secondary emission from the material
23/04	. . and forming images of the material	NOTE	
23/041	. . . Phase-contrast imaging, e.g. using grating interferometers	Devices per se are classified in the relevant places, e.g. H01J 37/00, H01J 49/00	
23/043	. . . {using fluoroscopic examination, with visual observation or video transmission of fluoroscopic images}	23/2202	. . Preparing specimens therefor
23/044	. . . using laminography or tomosynthesis	23/2204	. . Specimen supports therefor; Sample conveying means therefore
23/046	. . . using tomography, e.g. computed tomography [CT]	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
23/05	. . . using neutrons	23/2208	. . . all measurements being of a secondary emission, e.g. combination of SE measurement and characteristic X-ray measurement
23/06	. . and measuring the absorption	23/2209	. . using wavelength dispersive spectroscopy [WDS]
23/083	. . . the radiation being X-rays	23/221	. . by activation analysis
23/085	. . . . X-ray absorption fine structure [XAFS], e.g. extended XAFS [EXAFS]	23/222	. . . using neutron activation analysis [NAA]
23/087	. . . . using polyenergetic X-rays		
23/09	. . . the radiation being neutrons		
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		
23/12	. . . the material being a flowing fluid or a flowing granular solid		
23/125	. . . . {with immersed detecting head}		
23/16	. . . the material being a moving sheet or film		
23/18	. . . Investigating the presence of flaws defects or foreign matter		
23/185	. . . . {in tyres}		

23/223	. . by irradiating the sample with X-rays or gamma-rays and by measuring X-ray fluorescence	25/005	. {by investigating specific heat}
23/225	. . using electron or ion	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})
23/2251	. . . using incident electron beams, e.g. scanning electron microscopy [SEM]		
23/2252	. . . . Measuring emitted X-rays, e.g. electron probe microanalysis [EPMA]	25/04	. . of melting point; of freezing point; of softening point
23/2254	. . . . Measuring cathodoluminescence	25/06	. . . Analysis by measuring change of freezing point
23/2255	. . . using incident ion beams, e.g. proton beams	25/08	. . of boiling point
23/2257	. . . . Measuring excited X-rays, i.e. particle-induced X-ray emission [PIXE]	25/085	. . . {Investigating nucleation}
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)	25/10	. . . Analysis by measuring change of boiling point
23/227	. . Measuring photoelectric effect, e.g. photoelectron emission microscopy [PEEM]	25/12	. . of critical point; of other phase change
23/2273	. . . Measuring photoelectron spectrum, e.g. electron spectroscopy for chemical analysis [ESCA] or X-ray photoelectron spectroscopy [XPS]	25/14	. by using distillation, extraction, sublimation, condensation, freezing, or crystallisation (G01N 25/02 takes precedence)
23/2276	. . . using the Auger effect, e.g. Auger electron spectroscopy [AES]	25/142	. . {by condensation}
24/00	Investigating or analyzing materials by the use of nuclear magnetic resonance, electron paramagnetic resonance or other spin effects	25/145	. . {Accessories, e.g. cooling devices (in general B01L, F25D)}
24/002	. {Using resonance on molecular beams (atomic clocks G04F 5/14; beam masers H01S 1/06)}	25/147	. . {by cristallisation}
24/004	. {Using acoustical resonance, i.e. phonon interactions}	25/16	. by investigating thermal coefficient of expansion
24/006	. {using optical pumping (magnetometers using optical pumping G01R 33/26, optical pumping of lasers H01S 3/091)}	25/18	. by investigating thermal conductivity (by calorimetry G01N 25/20; by measuring change of resistance of an electrically-heated body G01N 27/18)
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)}	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)
24/08	. by using nuclear magnetic resonance (G01N 24/12 takes precedence)	25/22	. . on combustion or catalytic oxidation, e.g. of components of gas mixtures
24/081	. . {Making measurements of geologic samples, e.g. measurements of moisture, pH, porosity, permeability, tortuosity or viscosity}	25/24	. . . using combustion tubes, e.g. for microanalysis
24/082	. . {Measurement of solid, liquid or gas content}	25/26	. . . using combustion with oxygen under pressure, e.g. in bomb calorimeter
24/084	. . {Detection of potentially hazardous samples, e.g. toxic samples, explosives, drugs, firearms, weapons}	25/28	. . . the rise in temperature of the gases resulting from combustion being measured directly
24/085	. . {Analysis of materials for the purpose of controlling industrial production systems}	25/30	. . . . using electric temperature-responsive elements
24/087	. . {Structure determination of a chemical compound, e.g. of a biomolecule such as a protein}	25/32	. . . . . using thermoelectric elements
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}	25/34	. . . . using mechanical temperature-responsive elements, e.g. bimetallic (bimetallic elements per se G12B 1/02)
24/10	. by using electron paramagnetic resonance (G01N 24/12 takes precedence)	25/36	. . . . . for investigating the composition of gas mixtures
24/12	. by using double resonance	25/38	. . . . using the melting or combustion of a solid
24/14	. by using cyclotron resonance	25/385	. . . . . {for investigating the composition of gas mixtures}
25/00	Investigating or analyzing materials by the use of thermal means (G01N 3/00 - G01N 23/00 take precedence)	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 H10N 10/00, H10N 15/00)}

- 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
- 27/00 Investigating or analysing materials by the use of electric, electrochemical, or magnetic means ([G01N 3/00](#) – [G01N 25/00](#) take precedence; measurement or testing of 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 piezoelectric properties [G01R 29/22](#))}
- 27/02 . by investigating impedance
- 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
- 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 \[G01N 27/26\]\(#\)](#))
- 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
- 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 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

- 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
- 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 {, e.g. electrical or mechanical details for [in vitro](#) measurements}
- 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 33/4871](#))}
- 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 or analysing of 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](#))
- 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 with a combination 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 generate a reagent, e.g. for titration
- 27/447 . . . using electrophoresis
- 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 . . . using polarography, i.e. measuring changes in current under a slowly-varying voltage
- 27/49 . . . Systems involving the determination of the current at a single specific value, or small range of values, of applied voltage for producing selective measurement of one or more particular ionic species
- 27/60 . . by investigating electrostatic variables {, e.g. [electrographic flaw testing \(G01N 27/007 takes precedence\)](#)}
- 27/605 . . {for determining moisture content, e.g. humidity}
- 27/61 . . Investigating the presence of flaws
- 27/62 . . by investigating the ionisation of gases, e.g. aerosols; by investigating electric discharges, e.g. emission of cathode
- 27/622 . . Ion mobility spectrometry
- 27/623 . . . combined with mass spectrometry
- 27/624 . . . Differential mobility spectrometry [DMS]; 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
- 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
- 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
- 27/9006 {Details, e.g. in the structure or functioning of sensors}
- 27/9013 Arrangements for scanning
- 27/902 {by moving the sensors}
- 27/9026 {by moving the material}
- 27/904 with two or more sensors
- 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}
- 27/908 {synchronously with scanning}
- 27/9086 {Calibrating of recording device}
- 27/9093 Arrangements for supporting the sensor; Combinations of eddy-current sensors and auxiliary arrangements for marking or for rejecting
- 27/92 . . by investigating breakdown voltage ([G01N 27/60](#), [G01N 27/62](#) take precedence)
- 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 5/00](#), [G01N 7/00](#), [G01N 9/00](#), [G01N 11/00](#), [G01N 13/00](#), [G01N 15/00](#), [G01N 17/00](#), [G01N 19/00](#), [G01N 21/00](#), [G01N 22/00](#), [G01N 23/00](#), [G01N 24/00](#), [G01N 25/00](#), [G01N 27/00](#) take precedence)**
- 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 {or field flow fractionation} (G01N 3/00, G01N 5/00, G01N 7/00, G01N 9/00, G01N 11/00, G01N 13/00, G01N 15/00, G01N 17/00, G01N 19/00, G01N 21/00, G01N 22/00, G01N 23/00, G01N 24/00, G01N 25/00, G01N 27/00, G01N 29/00 take precedence)	
	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}	2030/121 {cooling; cold traps}
2030/001	. . {hydrodynamic fractionation, e.g. CHDF or HDC}	2030/122 {cryogenic focusing}
2030/0015	. . {characterised by driving force}	2030/123 {using more than one trap}
2030/002	. . . {sedimentation or centrifugal FFF}	2030/125 {pyrolysing}
2030/0025	. . . {cross flow FFF}	2030/126 {evaporating sample}
2030/003	. . . . {Asymmetrical flow}	2030/127 {PTV evaporation}
2030/0035	. . . {electrical field}	2030/128 {Thermal desorption analysis}
2030/004	. . {characterised by opposing force}	30/14 by elimination of some components
2030/0045	. . . {normal, i.e. diffusion or thermal FFF}	2030/143 {selective absorption}
2030/005	. . . {steric FFF, i.e. diffusion negligible for larger particles; separation due to protrusion depth into carrier flow profile}	2030/146 {using membranes}
		30/16 . . . Injection (G01N 30/24 takes precedence)
2030/0055	. . . {hyperlayer, i.e. different particle populations in hyperlayers elevated above wall}	2030/162 {electromigration}
2030/006	. . . . {lift hyperlayer, i.e. hydrodynamic lift forces dominate steric effect}	2030/165 {retention gaps}
2030/0065	. . . {Dielectric FFF, i.e. opposing forces dominate hydrodynamic lift forces and steric effects}	2030/167 {on-column injection}
2030/007	. . {programming of driving force (carrier programming G01N 30/02)}	30/18 using a septum or microsyringe
2030/0075	. {Separation due to differential desorption}	2030/185 {specially adapted to seal the inlet}
2030/008	. . {Thermal desorption}	30/20 using a sampling valve
2030/0085	. . {the desorption energy being adapted to sample, e.g. laser tuned to molecular bonds}	2030/201 {multiport valves, i.e. having more than two ports}
2030/009	. {Extraction}	2030/202 {rotary valves}
2030/0095	. {Separation specially adapted for use outside laboratory, e.g. field sampling, portable equipments}	2030/204 {Linearly moving valves, e.g. sliding valves}
		2030/205 {Diaphragm valves, e.g. deformed member closing the passage}
30/02	. Column chromatography	2030/207 {with metering cavity, e.g. sample loop}
2030/022	. . {characterised by the kind of separation mechanism}	2030/208 {with more than one cavity}
2030/025	. . . {Gas chromatography}	30/22 in high pressure liquid systems
2030/027	. . . {Liquid chromatography}	30/24 . . . Automatic injection systems
30/04	. . Preparation or injection of sample to be analysed	30/26 . . Conditioning of the fluid carrier; Flow patterns
2030/042	. . . {Standards}	30/28 . . . Control of physical parameters of the fluid carrier
2030/045	. . . . {internal}	2030/285 {electrically driven carrier}
2030/047	. . . . {external}	30/30 of temperature
30/06	. . . Preparation	2030/3007 {same temperature for whole column}
2030/062	. . . . {extracting sample from raw material}	2030/3015 {temperature gradients along column}
2030/065	. . . . {using different phases to separate parts of sample}	2030/3023 {using cryogenic fluids}
		2030/303 {using peltier elements}
2030/067	. . . . {by reaction, e.g. derivatising the sample}	2030/3038 {temperature control of column exit, e.g. of restrictors}
30/08	. . . . using an enricher	2030/3046 {temperature control of column inlet}
2030/085	. . . . . {using absorbing precolumn}	2030/3053 {using resistive heating}
30/10	. . . . using a splitter	2030/3061 {column or associated structural member used as heater}
30/12	. . . . by evaporation	2030/3069 {electrical resistance used to determine control temperature}
		2030/3076 {using specially adapted T(t) profile}
		2030/3084 {ovens}
		2030/3092 {Heat exchange between incoming and outgoing mobile phase}
		30/32 of pressure or speed (G01N 30/36 takes precedence)
		2030/322 {pulse dampers}
		2030/324 {speed, flow rate}
		2030/326 {pumps}
		2030/328 {valves, e.g. check valves of pumps}
		30/34 of fluid composition, e.g. gradient (G01N 30/36 takes precedence)
		2030/342 {fluid composition fixed during analysis}
		2030/345 {fluid electrical conductivity fixed during analysis}
		2030/347 {mixers}
		30/36 in high pressure liquid systems

30/38	. . . . Flow patterns	30/6039	. . . . {in series}
2030/381	. . . . {centrifugal chromatography}	30/6043	. . . . {in parallel}
2030/382	. . . . {flow switching in a single column}	30/6047	. . . {with supporting means; Holders}
2030/383	. . . . . {by using auxiliary fluid}	30/6052	. . . {body}
2030/385	. . . . . {by switching valves}	30/606	. . . . {with fluid access or exit ports}
2030/386	. . . . {Radial chromatography, i.e. with mobile phase traversing radially the stationary phase}	30/6065	. . . . {with varying cross section}
2030/387	. . . . {Turbulent flow of mobile phase}	30/6069	. . . . {with compartments or bed substructure}
2030/388	. . . . {Elution in two different directions on one stationary phase}	30/6073	. . . . {in open tubular form}
30/40	. . . . using back flushing	30/6078	. . . . . {Capillaries}
2030/402	. . . . . {purging a device}	30/6082	. . . . {transparent to radiation}
2030/405	. . . . . {re-concentrating or inverting previous separation}	30/6086	. . . . {form designed to optimise dispersion}
2030/407	. . . . . {carrying out another separation}	30/6091	. . . {Cartridges}
30/42	. . . . using counter-current	30/6095	. . . {Micromachined or nanomachined, e.g. micro- or nanosize}
30/44	. . . . using recycling of the fraction to be distributed		
2030/445	. . . . . {heart cut}		
30/46	. . . . using more than one column {(G01N 30/44 takes precedence)}		
30/461	. . . . . {with serial coupling of separation columns}		
30/462	. . . . . {with different eluents or with eluents in different states (G01N 30/463 takes precedence)}		
30/463	. . . . . {for multidimensional chromatography}		
30/465	. . . . . {with specially adapted interfaces between the columns}		
30/466	. . . . . {with separation columns in parallel}		
30/467	. . . . . {all columns being identical}		
30/468	. . . . . {involving switching between different column configurations}		
30/50	. . Conditioning of the sorbent material or stationary liquid		
30/52	. . . Physical parameters		
2030/521	. . . . {form}		
2030/522	. . . . {pressure}		
2030/524	. . . . {structural properties}		
2030/525	. . . . . {surface properties, e.g. porosity}		
2030/527	. . . . . {sorbent material in form of a membrane}		
2030/528	. . . . . {Monolithic sorbent material}		
30/54	. . . . Temperature		
30/56	. . . Packing methods or coating methods		
2030/562	. . . . {packing}		
2030/565	. . . . . {slurry packing}		
2030/567	. . . . . {coating}		
30/58	. . . the sorbent moving as a whole		
2030/582	. . . . {micellar electrokinetic capillary chromatography [MECC]}		
2030/585	. . . . {Parallel current chromatography}		
2030/587	. . . . {Continuous annular chromatography}		
30/60	. . Construction of the column		
30/6004	. . . {end pieces}		
2030/6008	. . . . {capillary restrictors}		
2030/6013	. . . . {interfaces to detectors}		
30/6017	. . . . {Fluid distributors}		
30/6021	. . . . {Adjustable pistons}		
30/6026	. . . . {Fluid seals}		
30/603	. . . . {retaining the stationary phase, e.g. Frits}		
30/6034	. . . . {joining multiple columns}		
		30/62	. . Detectors specially adapted therefor
		2030/621	. . . {signal-to-noise ratio}
		2030/623	. . . . {by modulation of sample feed or detector response}
		2030/625	. . . . {by measuring reference material, e.g. carrier without sample}
		2030/626	. . . {calibration, baseline}
		2030/628	. . . {Multiplexing, i.e. several columns sharing a single detector}
		30/64	. . . Electrical detectors
		2030/642	. . . . {photoionisation detectors}
		2030/645	. . . . {electrical conductivity detectors}
		2030/647	. . . . {surface ionisation}
		30/66	. . . . Thermal conductivity detectors
		30/68	. . . . Flame ionisation detectors
		2030/685	. . . . {flame photometry}
		30/70	. . . . Electron capture detectors
		30/72	. . . Mass spectrometers {(mass spectrometers per se H01J 49/00)}
		30/7206	. . . . {interfaced to gas chromatograph (interfaces in general for introducing or extracting samples to be analysed with specially adapted mass spectrometer, see H01J 49/04)}
		30/7213	. . . . . {splitting of the gaseous effluent}
		30/722	. . . . . {through a gas permeable barrier (membranes, porous layers)}
		2030/7226	. . . . . {OWTC, short capillaries or transfer line used as column}
		30/7233	. . . . {interfaced to liquid or supercritical fluid chromatograph (interfaces in general for introducing or extracting samples to be analysed with specially adapted mass spectrometer, see H01J 49/04)}
		30/724	. . . . . {Nebulising, aerosol formation or ionisation (spraying or atomising in general B05B)}
		30/7246	. . . . . {by pneumatic means}
		30/7253	. . . . . {by thermal means, e.g. thermospray}
		30/726	. . . . . {by electrical or glow discharge}
		30/7266	. . . . . {by electric field, e.g. electrospray}
		30/7273	. . . . . {Desorption chambers}

30/728	. . . . {Intermediate storage of effluent, including condensation on surface}	30/8665	. . . . {for calibrating the measuring apparatus}
30/7286	. . . . . {the store moving as a whole, e.g. moving wire}	30/8668	. . . . . {using retention times}
30/7293	. . . . . {Velocity or momentum separators}	30/8672	. . . . . {not depending on an individual instrument, e.g. retention time indexes or calibration transfer}
30/74	. . . . Optical detectors {(measurement of intensity, velocity, spectral content, polarisation, or phase of infrared, visible or ultraviolet light G01J)}	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)}
2030/743	. . . . . {FTIR}	30/8679	. . . . . {Target compound analysis, i.e. whereby a limited number of peaks is analysed}
2030/746	. . . . . {detecting along the line of flow, e.g. axial}	30/8682	. . . . . {Group type analysis, e.g. of components having structural properties in common}
30/76	. . . . Acoustical detectors {(measurement of mechanical vibrations or ultrasonic, sonic or infrasonic waves G01H)}	30/8686	. . . . . {Fingerprinting, e.g. without prior knowledge of the sample components}
2030/765	. . . . . {for measuring mechanical vibrations}	30/8689	. . . . . {Peak purity of co-eluting compounds}
2030/77	. . . . {detecting radioactive properties}	30/8693	. . . . {Models, e.g. prediction of retention times, method development and validation}
30/78	. . . . using more than one detector	30/8696	. . . . {Details of Software}
30/80	. . . Fraction collectors	30/88	. . . Integrated analysis systems specially adapted therefor, not covered by a single one of the groups G01N 30/04 - G01N 30/86
30/82	. . . . Automatic means therefor	2030/8804	. . . . {automated systems}
30/84	. . . Preparation of the fraction to be distributed	2030/8809	. . . . {analysis specially adapted for the sample}
2030/8405	. . . . {using pyrolysis}	2030/8813	. . . . . {biological materials}
2030/8411	. . . . {Intermediate storage of effluent, including condensation on surface}	2030/8818	. . . . . {involving amino acids}
2030/8417	. . . . . {the store moving as a whole, e.g. moving wire}	2030/8822	. . . . . {involving blood}
2030/8423	. . . . {using permeable separator tubes}	2030/8827	. . . . . {involving nucleic acids}
2030/8429	. . . . {adding modifying material}	2030/8831	. . . . . {involving peptides or proteins}
2030/8435	. . . . . {for chemical reaction}	2030/8836	. . . . . {involving saccharides}
2030/8441	. . . . . {to modify physical properties}	2030/884	. . . . . {organic compounds}
2030/8447	. . . . {Nebulising, aerosol formation or ionisation}	2030/8845	. . . . . {involving halogenated organic compounds}
2030/8452	. . . . . {Generation of electrically charged aerosols or ions}	2030/885	. . . . . {involving polymers}
2030/8458	. . . . . {of ions or clusters of individual ions}	2030/8854	. . . . . {involving hydrocarbons}
2030/8464	. . . . . {Uncharged atoms or aerosols}	2030/8859	. . . . . {inorganic compounds}
2030/847	. . . . . {by pneumatic means}	2030/8863	. . . . . {Fullerenes}
2030/8476	. . . . . {by thermal means}	2030/8868	. . . . . {elemental analysis, e.g. isotope dilution analysis}
2030/8482	. . . . . {by electrical or glow discharge}	2030/8872	. . . . . {impurities}
2030/8488	. . . . . {by electric field}	2030/8877	. . . . . {optical isomers}
2030/8494	. . . . . {Desolvation chambers}	2030/8881	. . . . {Modular construction, specially adapted therefor}
30/86	. . . Signal analysis	2030/8886	. . . . {Analysis of industrial production processes}
30/8603	. . . . {with integration or differentiation}	2030/889	. . . . {monitoring the quality of the stationary phase; column performance}
30/8606	. . . . . {Integration}	2030/8895	. . . . {Independent juxtaposition of embodiments; Reviews}
30/861	. . . . . {Differentiation}	30/89	. . . Inverse chromatography
30/8613	. . . . . {Dividing or multiplying by a constant}	30/90	. . . Plate chromatography, e.g. thin layer or paper chromatography
30/8617	. . . . . {Filtering, e.g. Fourier filtering}	2030/903	. . . {centrifugal chromatography}
2030/862	. . . . . {Other mathematical operations for data preprocessing}	2030/906	. . . {pressurised fluid phase}
30/8624	. . . . {Detection of slopes or peaks; baseline correction}	30/91	. . . Application of the sample
30/8627	. . . . . {Slopes}	30/92	. . . Construction of the plate
30/8631	. . . . . {Peaks}	30/93	. . . . Application of the sorbent layer
30/8634	. . . . . {Peak quality criteria}	30/94	. . . Development
30/8637	. . . . . {Peak shape}	2030/945	. . . . {Application of reagents to undeveloped plate}
30/8641	. . . . . {Baseline}	30/95	. . . Detectors specially adapted therefor; Signal analysis
30/8644	. . . . . {Data segmentation, e.g. time windows}	30/96	. . . using ion-exchange (G01N 30/02 , G01N 30/90 take precedence)
2030/8648	. . . . . {Feature extraction not otherwise provided for}		
30/8651	. . . . {Recording, data acquisition, archiving and storage}		
30/8655	. . . . . {Details of data formats}		
30/8658	. . . . {Optimising operation parameters}		
30/8662	. . . . . {Expert systems; optimising a large number of parameters}		

2030/965	. . {suppressor columns}	33/0006	. . {Calibrating gas analysers}
31/00	Investigating or analysing non-biological materials by the use of the chemical methods specified in the subgroup; Apparatus specially adapted for such methods	33/0008	. . . {Details concerning storage of calibration data, e.g. in EEPROM}
31/002	. {Determining nitrogen by transformation into ammonia, e.g. KJELDAHL method}	33/0009	. . {General constructional details of gas analysers, e.g. portable test equipment (devices for withdrawing samples in the gaseous state G01N 1/22)}
31/005	. {investigating the presence of an element by oxidation (G01N 31/12 takes precedence)}	33/0011	. . . {Sample conditioning (preparing specimens for investigation G01N 1/28)}
31/007	. . {by measuring the quantity of water resulting therefrom (G01N 31/12 takes precedence)}	33/0013	. . . . {by a chemical reaction (a chemical reaction taking place or a gas being eliminated in one or more analysing channels G01N 33/0024)}
NOTE		33/0014	. . . . {by eliminating a gas (by a chemical reaction G01N 33/0013 ; a chemical reaction taking place or a gas being eliminated in one or more analysing channels G01N 33/0024)}
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.		33/0016	. . . . {by regulating a physical variable, e.g. pressure or temperature}
31/02	. using precipitation {(measuring deposition or liberation of materials from an electrolyte G01N 27/42)}	33/0018	. . . . {by diluting a gas}
31/10	. using catalysis	33/0019	. . . . {by preconcentration}
31/12	. using combustion (G01N 25/20 takes precedence)	33/0021	. . . . {involving the use of a carrier gas for transport to the sensor}
31/16	. using titration	33/0022	. . . {using a number of analysing channels}
31/162	. . {Determining the equivalent point by means of a discontinuity}	33/0024	. . . . {a chemical reaction taking place or a gas being eliminated in one or more channels}
31/164	. . . {by electrical or electrochemical means}	33/0026	. . . {using an alternating circulation of another gas}
31/166	. . {Continuous titration of flowing liquids}	33/0027	. . . {concerning the detector}
31/168	. . {Determining water content by using Karl Fischer reagent}	33/0029	. . . . {Cleaning of the detector}
31/18	. . Burettes specially adapted for titration	33/0031	. . . . {comprising two or more sensors, e.g. a sensor array}
31/20	. using microanalysis, e.g. drop reaction	33/0032	. . . . . {using two or more different physical functioning modes}
31/22	. using chemical indicators (G01N 31/02 takes precedence)	33/0034	. . . . . {comprising neural networks or related mathematical techniques}
31/221	. . {for investigating pH value}	33/0036	. . . . {specially adapted to detect a particular component (physical analysis of gaseous biological material G01N 33/497)}
31/222	. . {for investigating moisture content}	33/0037	. . . . . {NO _x }
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)}	33/0039	. . . . . {O ₃ }
31/224	. . . {for investigating presence of dangerous gases}	33/004	. . . . . {CO or CO ₂ }
31/225	. . . {for oxygen, e.g. including dissolved oxygen}	33/0042	. . . . . {SO ₂ or SO ₃ }
31/226	. . {for investigating the degree of sterilisation}	33/0044	. . . . . {Sulphides, e.g. H ₂ S}
31/227	. . {for nitrates or nitrites}	33/0045	. . . . . {Hg}
31/228	. . {for peroxides}	33/0047	. . . . . {Organic compounds}
31/229	. . {for investigating time/temperature history}	33/0049	. . . . . {Halogenated organic compounds}
33/00	Investigating or analysing materials by specific methods not covered by groups G01N 1/00 - G01N 31/00	33/005	. . . . . {H ₂ }
NOTE		33/0052	. . . . . {Gaseous halogens}
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.		33/0054	. . . . . {Ammonia}
{This Note corresponds to IPC Note (1) relating to G01N 33/52 - G01N 33/98 .}		33/0055	. . . . . {Radionuclides}
33/0001	. {by organoleptic means}	33/0057	. . . . . {Warfare agents or explosives}
33/0003	. {Composite materials}	33/0059	. . . . . {Avoiding interference of a gas with the gas to be measured}
33/0004	. {Gaseous mixtures, e.g. polluted air}	33/006	. . . . . {Avoiding interference of water vapour with the gas to be measured}
		33/0062	. . . {concerning the measuring method or the display, e.g. intermittent measurement or digital display}
		33/0063	. . . . {using a threshold to release an alarm or displaying means}
		33/0065	. . . . . {using more than one threshold}
		33/0067	. . . . {by measuring the rate of variation of the concentration}

33/0068	. . . . {using a computer specifically programmed}	33/205	. . in liquid state, e.g. molten metals
33/007	. . . {Arrangements to check the analyser (calibrating gas analysers G01N 33/0006)}	33/207	. . Welded or soldered joints; Solderability
33/0072	. . . . {by generating a test gas}	33/208	. . Coatings, e.g. platings
33/0073	. . . {Control unit therefor}	33/22	. Fuels; Explosives
33/0075	. . . . {for multiple spatially distributed sensors, e.g. for environmental monitoring}	33/222	. . {Solid fuels, e.g. coal}
33/0077	. {Testing material properties on individual granules or tablets}	33/225	. . {Gaseous fuels, e.g. natural gas}
33/0078	. {Testing material properties on manufactured objects}	33/227	. . {Explosives, e.g. combustive properties thereof}
33/008	. . {Sport articles, e.g. balls, skis or rackets}	33/24	. Earth materials (G01N 33/42 takes precedence)
33/0081	. . {Containers; Packages; Bottles}	33/241	. . {for hydrocarbon content}
33/0083	. . {Vehicle parts}	33/243	. . {for determining biological parameters concerning composting, biodegradability or bioavailability}
33/0085	. . . {Wheels}	33/245	. . {for agricultural purposes}
33/0086	. . {Clothes; Hosiery}	33/246	. . {for water content}
33/009	. . {Seals}	33/248	. . {related to manure as a biological product}
33/0091	. {Powders}	33/26	. Oils; Viscous liquids; Paints; Inks (G01N 33/22 takes precedence)
33/0093	. {Radioactive materials}	33/28	. . Oils {, i.e. hydrocarbon liquids} (edible oils or edible fats G01N 33/03)
33/0095	. {Semiconductive materials}	33/2805	. . . {investigating the resistance to heat or oxidation}
33/0096	. {Testing material properties on thin layers or coatings}	33/2811	. . . {by measuring cloud point or pour point of oils}
33/0098	. {Plants or trees (wood G01N 33/46)}	33/2817	. . . {using a test engine}
33/02	. Food	33/2823	. . . {Raw oil, drilling fluid or polyphasic mixtures}
33/025	. . {Fruits or vegetables}	33/2829	. . . {Mixtures of fuels}
33/03	. . Edible oils or edible fats	33/2835	. . . {Specific substances contained in the oils or fuels}
33/04	. . Dairy products	33/2841	. . . . {Gas in oils, e.g. hydrogen in insulating oils}
33/06	. . . Determining fat content, e.g. by butyrometer	33/2847	. . . . {Water in oils}
33/08	. . Eggs, e.g. by candling	33/2852	. . . . {Alcohol in fuels}
33/085	. . . {by candling}	33/2858	. . . . {Metal particles}
33/10	. . Starch-containing substances, e.g. dough	33/2864	. . . . {Lead content}
33/105	. . . {Pasta}	33/287	. . . . {Sulfur content}
33/12	. . Meat; Fish	33/2876	. . . . {Total acid number}
33/14	. . Beverages	33/2882	. . . . {Markers}
33/143	. . . {containing sugar}	33/2888	. . . {Lubricating oil characteristics, e.g. deterioration (lubricating properties G01N 33/30)}
33/146	. . . {containing alcohol}	33/2894	. . . {for metal working or machining}
33/15	. Medicinal preparations {; Physical properties thereof, e.g. dissolubility}	33/30	. . . for lubricating properties
33/18	. Water	33/32	. . Paints; Inks
33/1806	. . {Biological oxygen demand [BOD] or chemical oxygen demand [COD]}	33/34	. Paper
33/1813	. . {Specific cations in water, e.g. heavy metals}	33/343	. . {Paper pulp}
33/182	. . {Specific anions in water}	33/346	. . {Paper sheets}
33/1826	. . {Organic contamination in water}	33/36	. Textiles
33/1833	. . . {Oil in water}	33/362	. . {Material before processing, e.g. bulk cotton or wool}
33/184	. . . {Herbicides, pesticides, fungicides, insecticides or the like}	33/365	. . {Filiform textiles, e.g. yarns}
33/1846	. . . {Total carbon analysis}	33/367	. . {Fabric or woven textiles}
33/1853	. . {Hardness of water}	33/38	. Concrete; Lime; Mortar; Gypsum; Bricks; Ceramics; Glass
33/186	. . {using one or more living organisms, e.g. a fish}	33/383	. . {Concrete or cement}
33/1866	. . . {using microorganisms}	33/386	. . {Glass}
33/1873	. . {Ice or snow}	33/388	. . {Ceramics}
33/188	. . {Determining the state of nitrification}	33/389	. {Precious stones; Pearls}
33/1886	. . {using probes, e.g. submersible probes, buoys}	33/39	. {Crystals}
33/1893	. . {using flow cells}	33/40	. Grinding-materials
33/20	. Metals	33/42	. Road-making materials (G01N 33/38 takes precedence)
33/202	. . Constituents thereof	33/44	. Resins; Plastics; Rubber; Leather
33/2022	. . . Non-metallic constituents	33/442	. . {Resins; Plastics}
33/2025	. . . . Gaseous constituents		
33/2028	. . . . Metallic constituents		
33/204	. . Structure thereof, e.g. crystal structure		
33/2045	. . . Defects		

- 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 1/56](#))}
 - 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
 - 33/4972 {Determining alcohol content (for vehicle safety devices [B60K 28/06](#))}
 - 33/4975 {other than oxygen, carbon dioxide or alcohol, e.g. organic vapours}
 - 33/4977 {Metabolic gas from microbes, cell cultures or plant tissues}
 - 33/50 . . Chemical analysis of biological material, e.g. blood, urine; Testing involving biospecific ligand binding methods; Immunological testing (measuring or testing processes involving enzymes or microorganisms, compositions or test papers therefor; processes for forming such compositions, condition responsive control in microbiological or enzymological processes [C12Q](#))
- NOTES**
1. In this group, the following expression is used with the meaning indicated: "involving", when used in relation to a material, includes the testing for the material as well as employing the material as a determinant or reactant in a test for a different material.
 2. In groups [G01N 33/52](#) – [G01N 33/98](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
 3. Documents relating to new peptides or new DNA or its corresponding mRNA, encoding for the peptides, and their use in measuring or testing processes are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their use in diagnostics. However, if the investigating or analysing aspects are of interest, the documents are classified in this group.
- 33/5002 . . . {Partitioning blood components}
 - 33/5005 . . . {involving human or animal cells (immunoassay [G01N 33/56966](#); immunoassays of protozoa [G01N 33/56905](#); protozoa in screening assays [C12Q 1/025](#))}
 - 33/5008 {for testing or evaluating the effect of chemical or biological compounds, e.g. drugs, cosmetics}
 - 33/5011 {for testing antineoplastic activity}
 - 33/5014 {for testing toxicity}
 - 33/5017 {for testing neoplastic activity}
 - 33/502 {for testing non-proliferative effects}
 - 33/5023 {on expression patterns}
 - 33/5026 {on cell morphology}

- 33/5029 {on cell motility}
- 33/5032 {on intercellular interactions}
- 33/5035 {on sub-cellular localization}
- 33/5038 {involving detection of metabolites per se}
- 33/5041 {involving analysis of members of signalling pathways}
- 33/5044 {involving specific cell types}
- 33/5047 {Cells of the immune system}
- 33/505 {involving T-cells}
- 33/5052 {involving B-cells}
- 33/5055 {involving macrophages}
- 33/5058 {Neurological cells}
- 33/5061 {Muscle cells}
- 33/5064 {Endothelial cells}
- 33/5067 {Liver cells}
- 33/507 {Pancreatic cells}
- 33/5073 {Stem cells}
- 33/5076 {involving cell organelles, e.g. Golgi complex, endoplasmic reticulum}
- 33/5079 {Mitochondria}
- 33/5082 {Supracellular entities, e.g. tissue, organisms}
- 33/5085 {of invertebrates}
- 33/5088 {of vertebrates}
- 33/5091 {for testing the pathological state of an organism}
- 33/5094 {for blood cell populations (red blood cells [G01N 33/80](#))}
- 33/5097 {involving plant cells (immunoassays of plant cells [G01N 33/56961](#))}
- 33/52 Use of compounds or compositions for colorimetric, spectrophotometric or fluorometric investigation, e.g. use of reagent paper {and including single- and multilayer analytical elements (immunological elements [G01N 33/54386](#); involving labelled immunochemicals [G01N 33/58](#); for haemoglobin or occult blood [G01N 33/72](#))}
- 33/521 {Single-layer analytical elements}
- 33/523 {the element being adapted for a specific analyte}
- 33/525 {Multi-layer analytical elements}
- 33/526 {the element being adapted for a specific analyte}
- 33/528 {Atypical element structures, e.g. gloves, rods, tampons, toilet paper}
- 33/53 Immunoassay; Biospecific binding assay; Materials therefor
- 33/5302 {Apparatus specially adapted for immunological test procedures}
- 33/5304 {Reaction vessels, e.g. agglutination plates (for solid-phase systems [G01N 33/543](#))}
- 33/5306 {Improving reaction conditions, e.g. reduction of non-specific binding, promotion of specific binding}
- 33/5308 {for analytes not provided for elsewhere, e.g. nucleic acids, uric acid, worms, mites}
- 33/531 Production of immunochemical test materials
- 33/532 Production of labelled immunochemicals
- 33/533 with fluorescent label
- 33/534 with radioactive label
- 33/535 with enzyme label {or co-enzymes, co-factors, enzyme inhibitors or enzyme substrates}
- 33/536 with immune complex formed in liquid phase
- 33/537 with separation of immune complex from unbound antigen or antibody
- 33/5375 {by changing the physical or chemical properties of the medium or immunochemicals, e.g. temperature, density, pH, partitioning}
- 33/538 by sorbent column, particles or resin strip {, i.e. sorbent materials}
- 33/539 involving precipitating reagent {, e.g. ammonium sulfate}
- 33/541 Double or second antibody {, i.e. precipitating antibody}
- 33/542 with steric inhibition or signal modification, e.g. fluorescent quenching
- 33/543 with an insoluble carrier for immobilising immunochemicals
- 33/54306 {Solid-phase reaction mechanisms}
- 33/54313 {the carrier being characterised by its particulate form}
- 33/5432 {Liposomes or microcapsules}
- 33/54326 {Magnetic particles}
- 33/54333 {Modification of conditions of immunological binding reaction, e.g. use of more than one type of particle, use of chemical agents to improve binding, choice of incubation time or application of magnetic field during binding reaction}
- 33/5434 {using magnetic particle immunoreagent carriers which constitute new materials per se}
- 33/54346 {Nanoparticles}
- 33/54353 {with ligand attached to the carrier via a chemical coupling agent (coatings [G01N 33/54393](#))}
- 33/5436 {with ligand physically entrapped within the solid phase (liposomes [G01N 33/5432](#); immunological test elements [G01N 33/54386](#))}
- 33/54366 {Apparatus specially adapted for solid-phase testing}
- 33/54373 {involving physiochemical end-point determination, e.g. wave-guides, FETS, gratings}
- 33/5438 {Electrodes}
- 33/54386 {Analytical elements}

WARNING

Group [G01N 33/54386](#) is impacted by reclassification into groups [G01N 33/54387](#), [G01N 33/54388](#), [G01N 33/54389](#) and [G01N 33/54391](#).

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

33/54387 {Immunochromatographic test strips}

WARNING

Groups [G01N 33/54387](#),
[G01N 33/54388](#), [G01N 33/54389](#)
and [G01N 33/54391](#)
are incomplete pending
reclassification of documents
from groups [G01N 33/54386](#) and
[G01N 33/558](#).

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

33/54388 {based on lateral flow}

33/54389 {with bidirectional or
multidirectional lateral flow,
e.g. wherein the sample flows
from a single, common sample
application point into multiple
strips, lanes or zones}

33/54391 {based on vertical flow}

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 {[immunochromatographic test
strips G01N 33/54387](#)}

WARNING

Group [G01N 33/558](#) is impacted
by reclassification into groups
[G01N 33/54387](#), [G01N 33/54388](#),
[G01N 33/54389](#) and [G01N 33/54391](#).

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

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 {HIV 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
- 33/58 involving labelled substances ([G01N 33/53](#) takes precedence)
- 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
- 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-idiotypic}
- 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 {Erythropoietin}
- 33/76 Human chorionic gonadotropin {including luteinising hormone, follicle stimulating hormone, thyroid stimulating hormone or their receptors}
- 33/78 Thyroid gland hormones {, e.g. T3, T4, TBH, TBG or their receptors}
- 33/80 involving blood groups or blood types {or red blood cells (*white blood cells* [G01N 33/56972](#))}
- 33/82 involving vitamins {or their receptors}
- 33/84 involving inorganic compounds or pH
- 33/86 involving blood coagulating time {or factors, or their receptors}
- 33/88 involving prostaglandins {or their receptors}

33/90	. . . involving iron binding capacity of blood	2035/00247	. . . {Microvalves}
33/92	. . . involving lipids, e.g. cholesterol {, lipoproteins, or their receptors (steroid hormones G01N 33/743)}	2035/00257	. . . {Capillary stop flow circuits}
33/94	. . . involving narcotics {or drugs or pharmaceuticals, neurotransmitters or associated receptors}	2035/00267	. . . {Melttable plugs}
33/9406	. . . {Neurotransmitters}	2035/00277	. . {Special precautions to avoid contamination (e.g. enclosures, glove- boxes, sealed sample carriers, disposal of contaminated material)}
33/9413	. . . {Dopamine}	2035/00287	. . . {movable lid/cover for sample or reaction tubes}
33/942	. . . {Serotonin, i.e. 5-hydroxy-tryptamine}	2035/00297	. . . {Antistatic arrangements}
33/9426	. . . {GABA, i.e. gamma-amino-butyrate}	2035/00306	. . {Housings, cabinets, control panels (details)}
33/9433	. . . {(Nor)adrenaline}	2035/00316	. . . {Detecting door closure}
33/944	. . . {Acetylcholine}	2035/00326	. . {Analysers with modular structure}
33/9446	. . . {Antibacterials}	2035/00336	. . . {Analysers adapted for operation in microgravity, i.e. spaceflight}
33/9453	. . . {Cardioregulators, e.g. antihypotensives, antiarrhythmics}	2035/00346	. {Heating or cooling arrangements}
33/946	. . . {CNS-stimulants, e.g. cocaine, amphetamines}	2035/00356	. . {Holding samples at elevated temperature (incubation)}
33/9466	. . . {Antidepressants}	2035/00366	. . . {Several different temperatures used}
33/9473	. . . {Anticonvulsants, e.g. phenobarbitol, phenytoin}	2035/00376	. . . {Conductive heating, e.g. heated plates}
33/948	. . . {Sedatives, e.g. cannabinoids, barbiturates (opiates G01N 33/9486)}	2035/00386	. . . {using fluid heat transfer medium}
33/9486	. . . {Analgesics, e.g. opiates, aspirine}	2035/00396	. . . {where the fluid is a liquid}
33/9493	. . . {Immunosuppressants}	2035/00405	. . . {Microwaves}
33/96	. . . involving blood or serum control standard	2035/00415	. . . {Other radiation}
33/98	. . . involving alcohol, e.g. ethanol in breath	2035/00425	. . {Heating or cooling means associated with pipettes or the like, e.g. for supplying sample/reagent at given temperature}
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	2035/00435	. . {Refrigerated reagent storage}
35/00009	. {provided with a sample supporting tape, e.g. with absorbent zones}	2035/00445	. . {Other cooling arrangements}
2035/00019	. . {cassette structures}	2035/00455	. . {Controlling humidity in analyser}
35/00029	. {provided with flat sample substrates, e.g. slides (G01N 35/028 takes precedence)}	2035/00465	. {Separating and mixing arrangements}
2035/00039	. . {Transport arrangements specific to flat sample substrates, e.g. pusher blade}	2035/00475	. . {Filters}
2035/00049	. . . {for loading/unloading a carousel}	2035/00485	. . . {combined with sample carriers}
2035/00059	. . . {vacuum chucks}	2035/00495	. . {Centrifuges}
35/00069	. . {whereby the sample substrate is of the bio-disk type, i.e. having the format of an optical disk}	2035/00504	. . . {combined with carousels}
2035/00079	. . {Evaporation covers for slides}	2035/00514	. . {Stationary mixing elements}
2035/00089	. . {Magazines}	2035/00524	. . {Mixing by agitating sample carrier}
2035/00099	. . {Characterised by type of test elements}	2035/00534	. . {Mixing by a special element, e.g. stirrer}
2035/00108	. . . {Test strips, e.g. paper}	2035/00544	. . . {using fluid flow}
2035/00118	. . . {for multiple tests}	2035/00554	. . . {using ultrasound}
2035/00128	. . . {with pressing or squeezing devices}	2035/00564	. . {Handling or washing solid phase elements, e.g. beads}
2035/00138	. . . {Slides}	2035/00574	. . . {Means for distributing beads}
2035/00148	. . . {Test cards, e.g. Biomerieux or McDonnell multiwell test cards}	35/00584	. {Control arrangements for automatic analysers}
2035/00158	. . . {Elements containing microarrays, i.e. "biochip"}	35/00594	. . {Quality control, including calibration or testing of components of the analyser}
2035/00168	. . {Manufacturing or preparing test elements}	35/00603	. . . {Reinspection of samples}
2035/00178	. {Special arrangements of analysers}	35/00613	. . . {Quality control}
2035/00188	. . {the analyte being in the solid state}	35/00623	. . . {of instruments}
2035/00198	. . . {Dissolution analysers}	2035/00633	. . . {logging process history of individual samples}
2035/00207	. . {Handling bulk quantities of analyte}	2035/00643	. . . {detecting malfunctions in conveying systems}
2035/00217	. . . {involving measurement of weight}	2035/00653	. . . {statistical methods comparing labs or apparatuses}
2035/00227	. . . {Monitoring a process (online)}	35/00663	. . . {of consumables}
2035/00237	. . {Handling microquantities of analyte, e.g. microvalves, capillary networks}	2035/00673	. . . {of reagents}
		2035/00683	. . . {of detectors}
		35/00693	. . . {Calibration}
		2035/00702	. . . {Curve-fitting; Parameter matching; Calibration constants}
		35/00712	. . . {Automatic status testing, e.g. at start-up or periodic}

35/00722	. . . {Communications; Identification}	2035/0405	. . . . . {manipulating closing or opening means, e.g. stoppers, screw caps, lids or covers}
35/00732	. . . {Identification of carriers, materials or components in automatic analysers}	2035/0406	. . . . . {Individual bottles or tubes}
2035/00742	. . . . . {Type of codes}	2035/0408	. . . . . {connected in a flexible chain}
2035/00752	. . . . . {bar codes}	2035/041	. . . . . {lifting items out of a rack for access}
2035/00762	. . . . . {magnetic code}	2035/0412	. . . . . {Block or rack elements with a single row of samples}
2035/00772	. . . . . {mechanical or optical code other than bar code}	2035/0413	. . . . . {moving in one dimension}
2035/00782	. . . . . {reprogrammable code}	2035/0415	. . . . . {moving in two dimensions in a horizontal plane}
2035/00792	. . . . . {Type of components bearing the codes, other than sample carriers}	2035/0417	. . . . . {forming an endless chain in a vertical plane}
2035/00801	. . . . . {Holders for sample carriers, e.g. trays, carousel, racks}	2035/0418	. . . . . {Plate elements with several rows of samples}
2035/00811	. . . . . {consumable or exchangeable components other than sample carriers, e.g. detectors, flow cells}	2035/042	. . . . . {moved independently, e.g. by fork manipulator}
2035/00821	. . . . . {nature of coded information}	2035/0422	. . . . . {carried on a linear conveyor}
2035/00831	. . . . . {identification of the sample, e.g. patient identity, place of sampling}	2035/0424	. . . . . {Two or more linear conveyors}
2035/00841	. . . . . {results of the analyses}	2035/0425	. . . . . {Stacks, magazines or elevators for plates}
2035/00851	. . . . . {process control parameters}	2035/0427	. . . . . {nestable or stockable}
2035/00861	. . . . . {printing and sticking of identifiers}	2035/0429	. . . . . {Sample carriers adapted for special purposes}
35/00871	. . . {Communications between instruments or with remote terminals}	2035/0431	. . . . . {characterised by material of construction}
2035/00881	. . . . . {network configurations}	2035/0432	. . . . . {integrated with measuring devices}
2035/00891	. . . {Displaying information to the operator}	2035/0434	. . . . . {in the form of a syringe or pipette tip}
2035/009	. . . . . {alarms, e.g. audible}	2035/0436	. . . . . {with pre-packaged reagents, i.e. test-packs}
2035/0091	. . . . . {GUI [graphical user interfaces]}	2035/0437	. . . . . {Cleaning cuvettes or reaction vessels}
35/0092	. . . {Scheduling}	2035/0439	. . . {Rotary sample carriers, i.e. carousels}
2035/0093	. . . {random access not determined by physical position}	2035/0441	. . . . . {for samples}
2035/0094	. . . {optimisation; experiment design}	2035/0443	. . . . . {for reagents}
35/0095	. . . {introducing urgent samples with priority, e.g. Short Turn Around Time Samples [STATS]}	2035/0444	. . . . . {for cuvettes or reaction vessels}
2035/0096	. . . {post analysis management of samples, e.g. marking, removing, storing}	2035/0446	. . . . . {Combinations of the above}
2035/0097	. . . {monitoring reactions as a function of time}	2035/0448	. . . . . {composed of interchangeable ring elements}
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)}	2035/0449	. . . . . {using centrifugal transport of liquid}
35/0099	. {comprising robots or similar manipulators (robots per se B25J)}	2035/0451	. . . . . {composed of interchangeable sectors}
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)	2035/0453	. . . . . {Multiple carousels working in parallel}
35/021	. . {having a flexible chain, e.g. "cartridge belt", conveyor for reaction cells or cuvettes}	2035/0455	. . . . . {Coaxial carousels}
2035/023	. . . {forming cuvettes <i>in situ</i> , e.g. from plastic strip}	2035/0456	. . . . . {Spiral tracks}
35/025	. . {having a carousel or turntable for reaction cells or cuvettes}	2035/0458	. . . . . {Multiple concentric rows of wells}
35/026	. . {having blocks or racks of reaction cells or cuvettes}	2035/046	. . . {General conveyor features}
35/028	. . {having reaction cells in the form of microtitration plates}	2035/0462	. . . . . {Buffers [FIFO] or stacks [LIFO] for holding carriers between operations}
35/04	. . Details of the conveyor system (G01N 35/021 - G01N 35/028 take precedence)	2035/0463	. . . . . {in incubators}
2035/0401	. . . {Sample carriers, cuvettes or reaction vessels}	2035/0465	. . . . . {Loading or unloading the conveyor}
2035/0403	. . . . . {Sample carriers with closing or sealing means}	2035/0467	. . . . . {Switching points ("aiguillages")}
		2035/0468	. . . . . {converging, e.g. selecting carriers from multiple incoming streams}
		2035/047	. . . . . {diverging, e.g. sending carriers to different analysers}
		2035/0472	. . . . . {for selective recirculation of carriers}
		2035/0474	. . . {Details of actuating means for conveyors or pipettes}
		2035/0475	. . . . . {electric, e.g. stepper motor, solenoid}
		2035/0477	. . . . . {Magnetic}
		2035/0479	. . . . . {hydraulic or pneumatic}
		2035/0481	. . . . . {Pneumatic tube conveyors; Tube mails; "Rohrpost"}
		2035/0482	. . . . . {Transmission}
		2035/0484	. . . . . {Belt or chain}
		2035/0486	. . . . . {Gearing, cams}

2035/0487	. . . . . {Helix or lead screw}	35/1079	. . {with means for piercing stoppers or septums}
2035/0489	. . . . {Self-propelled units}	35/1081	. . {characterised by the means for relatively moving the transfer device and the containers in an horizontal plane (G01N 35/1011 takes precedence)}
2035/0491	. . . . {Position sensing, encoding; closed-loop control}	35/1083	. . . {with one horizontal degree of freedom}
2035/0493	. . . . . {Locating samples; identifying different tube sizes}	2035/1086	. . . . {Cylindrical, e.g. variable angle}
2035/0494	. . . . . {Detecting or compensating positioning errors}	2035/1088	. . . . . {Coaxial with a carousel}
2035/0496	. . . {Other details}	35/109	. . . {with two horizontal degrees of freedom}
2035/0498	. . . . {Drawers used as storage or dispensing means for vessels or cuvettes}	2035/1093	. . . . {Cylindrical, e.g. variable radius and angle}
35/08	. using a stream of discrete samples flowing along a tube system, e.g. flow injection analysis	35/1095	. . {for supplying the samples to flow-through analysers (for a specific analyser see relevant groups, e.g. under G01N 15/00 , G01N 21/00 , G01N 27/00 , G01N 30/00 , H01J 49/00)}
35/085	. . {Flow Injection Analysis}	35/1097	. . . {characterised by the valves (valves in general F16K)}
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)}	37/00	Details not covered by any other group of this subclass
35/1002	. . {Reagent dispensers}	37/005	. {Measurement methods not based on established scientific theories}
35/1004	. . {Cleaning sample transfer devices}	2201/00	Features of devices classified in G01N 21/00
2035/1006	. . . {Rinsing only the inside of the tip}	2201/02	. Mechanical
35/1009	. . {Characterised by arrangements for controlling the aspiration or dispense of liquids}	2201/021	. . Special mounting in general
35/1011	. . . {Control of the position or alignment of the transfer device}	2201/0212	. . . Liquid borne; swimming apparatus
2035/1013	. . . . {Confirming presence of tip}	2201/0214	. . . Airborne
35/1016	. . . {Control of the volume dispensed or introduced}	2201/0216	. . . Vehicle borne
2035/1018	. . . . {Detecting inhomogeneities, e.g. foam, bubbles, clots}	2201/0218	. . . Submersible, submarine
2035/102	. . . . {Preventing or detecting loss of fluid by dripping}	2201/022	. . Casings
2035/1023	. . . . . {using a valve in the tip or nozzle}	2201/0221	. . . Portable; cableless; compact; hand-held
2035/1025	. . . {Fluid level sensing}	2201/0222	. . . Pocket size
2035/1027	. . {General features of the devices}	2201/0224	. . . Pivoting casing
2035/103	. . . {using disposable tips}	2201/0225	. . . Part of casing being slidable, telescopic
2035/1032	. . . {Dilution or aliquotting}	2201/0227	. . . Sealable enclosure
2035/1034	. . . {Transferring microquantities of liquid}	2201/0228	. . . Moulded parts
2035/1037	. . . . {Using surface tension, e.g. pins or wires}	2201/023	. . Controlling conditions in casing
2035/1039	. . . . {Micropipettes, e.g. microcapillary tubes}	2201/0231	. . . Thermostating
2035/1041	. . . . {Ink-jet like dispensers}	2201/0233	. . . Gas purge
2035/1044	. . . . {Using pneumatic means}	2201/0235	. . . . with gas filters in casing
2035/1046	. . . . {Levitated, suspended drops}	2201/0236	. . . Explosion proof
2035/1048	. . . {using the transfer device for another function}	2201/0238	. . . Moisture monitoring or controlling
2035/1051	. . . . {for transporting containers, e.g. retained by friction}	2201/024	. . Modular construction
2035/1053	. . . . {for separating part of the liquid, e.g. filters, extraction phase}	2201/0245	. . . with insertable-removable part
2035/1055	. . . . {for immobilising reagents, e.g. dried reagents}	2201/025	. . Mechanical control of operations
2035/1058	. . . . {for mixing}	2201/0253	. . . Switches mounted at the casing
2035/106	. . . . . {by sucking and blowing}	2201/0256	. . . Sensor for insertion of sample, cuvette, test strip
2035/1062	. . . . {for testing the liquid while it is in the transfer device}	2201/04	. Batch operation; multisample devices
35/1065	. . {Multiple transfer devices}	2201/0407	. . with multiple optical units, e.g. one per sample
35/1067	. . . {for transfer to or from containers having different spacing}	2201/0415	. . Carrusel, sequential
2035/1069	. . . . {by adjusting the spacing between multiple probes of a single transferring head}	2201/0423	. . . with rotating optics
35/1072	. . . {with provision for selective pipetting of individual channels}	2201/043	. . . . optics constituted by optical fibre multiplex selector
35/1074	. . . {arranged in a two-dimensional array}	2201/0438	. . Linear motion, sequential
2035/1076	. . . {plurality or independently movable heads}	2201/0446	. . Multicell plate, sequential
		2201/0453	. . Multicell sequential and multitest, e.g. multiwavelength
		2201/0461	. . Simultaneous, e.g. video imaging
		2201/0469	. . One cell, sequential, e.g. successive samples
		2201/0476	. . Keyboard controlled, e.g. for plural analysis at one sample, channel selection, coding
		2201/0484	. . Computer controlled

2201/0492	. .	Automatised microscope	2201/0691	. . .	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
2201/0646	. . .	Light seals	2201/1082	. . .	Descanning
2201/0648	. . .	Shutters	2201/1085	. . .	Using optical fibre array and scanner
2201/065	. .	Integrating spheres	2201/1087	. . .	Focussed scan beam, e.g. laser
2201/0655	. . .	Hemispheres	2201/11	. .	Monitoring and controlling the scan
2201/066	. .	Modifiable path; multiple paths in one sample	2201/112	. . .	Grating pulse time encoder
2201/0662	. . .	Comparing measurements on two or more paths in one sample	2201/115	. . .	Optical equalisation of scan intensity
2201/0664	. . .	Using two ways, i.e. two devices in same path in one sample	2201/117	. . .	Indexed, memorised or programmed scan
2201/0666	. . .	Selectable paths; insertable multiple sources	2201/12	. .	Circuits of general importance; Signal processing
2201/0668	. . .	Multiple paths; optimisable path length	2201/121	. .	Correction signals
2201/067	. .	Electro-optic, magneto-optic, acousto-optic elements	2201/1211	. . .	for temperature
2201/0675	. . .	SLM	2201/1212	. . . .	and switch-off from upwarming
2201/068	. .	Optics, miscellaneous	2201/1214	. . .	for humidity
2201/0683	. . .	Brewster plate; polarisation controlling elements	2201/1215	. . .	for interfering gases
2201/0686	. . .	Cold filter; IR filter	2201/1217	. . .	for index of solution, carrying fluids
2201/069	. .	Supply of sources	2201/1218	. . .	for pressure variations
			2201/122	. .	Kinetic analysis; determining reaction rate
			2201/1222	. . .	Endpoint determination; reaction time determination

2201/1224	. . .	Polymerisation	2203/0014	. .	Type of force applied			
2201/1226	. . .	Relaxation methods, e.g. temperature jump, field jump	2203/0016	. .	Tensile or compressive			
2201/1228	. . .	Reading time being controlled, e.g. by microprocessor	2203/0017	. . .	Tensile			
2201/123	. .	Conversion circuit	2203/0019	. . .	Compressive			
2201/1232	. . .	Log representation, e.g. for low transmittance	2203/0021	. .	Torsional			
2201/1235	. . .	Measuring or displaying selectably absorbance or density	2203/0023	. .	Bending			
2201/1237	. . .	Measuring extrema	2203/0025	. .	Shearing			
2201/124	. .	Sensitivity	2203/0026	. .	Combination of several types of applied forces			
2201/1241	. . .	Multirange	2203/0028	. . .	Rotation and bending			
2201/1242	. . .	Validating, e.g. range invalidation, suspending operation	2203/003	. .	Generation of the force			
2201/1244	. . .	Ambient light detector, e.g. for invalidating	2203/0032	. .	using mechanical means			
2201/1245	. . .	Averaging several measurements	2203/0033	. . .	Weight			
2201/1247	. . .	Thresholding	2203/0035	. . .	Spring			
2201/1248	. . .	Validating from signal shape, slope, peak	2203/0037	. . .	involving a rotating movement, e.g. gearing, cam, eccentric, or centrifuge effects			
2201/125	. .	Digital circuitry	2203/0039	. . .	Hammer or pendulum			
2201/126	. .	Microprocessor processing	2203/0041	. . .	Human or animal power			
2201/1263	. . .	Microprocessor is used as variant to separate part circuits	2203/0042	. .	Pneumatic or hydraulic means			
2201/1266	. . .	Interface card	2203/0044	. . .	Pneumatic means			
2201/127	. .	Calibration; base line adjustment; drift compensation	2203/0046	. . . .	Vacuum		
2201/12707	. . .	Pre-test of apparatus, e.g. dark test, sensor test	2203/0048	. . .	Hydraulic means			
2201/12715	. . .	Zero adjustment, i.e. to verify calibration	2203/005	. .	Electromagnetic means			
2201/12723	. . .	Self check capacity; automatic, periodic step of checking	2203/0051	. . .	Piezoelectric means			
2201/1273	. . .	Check triggered by sensing conditions, e.g. ambient changes	2203/0053	. .	Cutting or drilling tools			
2201/12738	. . .	Selectively initiating check	2203/0055	. .	using mechanical waves, e.g. acoustic			
2201/12746	. . .	Calibration values determination	2203/0057	. .	using stresses due to heating, e.g. conductive heating, radiative heating			
2201/12753	. . . .	and storage	2203/0058	. .	Kind of property studied		
2201/12761	. . . .	Precalibration, e.g. for a given series of reagents	2203/006	. .	Crack, flaws, fracture or rupture		
2201/12769	. . . .	and adjusting controls, e.g. zero and 100 %	2203/0062	. . .	Crack or flaws		
2201/12776	. . . .	Automatic scaling up	2203/0064	. . . .	Initiation of crack	
2201/12784	. . . .	Base line obtained from computation, histogram	2203/0066	. . . .	Propagation of crack	
2201/12792	. . .	Compensating own radiation in apparatus	2203/0067	. . .	Fracture or rupture			
2201/128	. .	Alternating sample and standard or reference part in one path	2203/0069	. .	Fatigue, creep, strain-stress relations or elastic constants			
2201/1281	. . .	Reflecting part, i.e. for autocollimation	2203/0071	. . .	Creep			
2201/1283	. . .	Opaque part	2203/0073	. . .	Fatigue			
2201/1285	. . .	Standard cuvette	2203/0075	. . .	Strain-stress relations or elastic constants			
2201/1286	. . . .	More than one cuvette	2203/0076	. .	Hardness, compressibility or resistance to crushing		
2201/1288	. . .	Calibration medium periodically inserted in one cell	2203/0078	. . .	using indentation			
2201/129	. .	Using chemometrical methods	2203/008	. . . .	Residual indentation measurement		
2201/1293	. . .	resolving multicomponent spectra	2203/0082	. . . .	Indentation characteristics measured during load		
2201/1296	. . .	using neural networks	2203/0083	. . .	Rebound strike or reflected energy			
2201/13	. .	Standards, constitution	2203/0085	. . .	Compressibility			
2203/00	Investigating strength properties of solid materials by application of mechanical stress				2203/0087	. . .	Resistance to crushing	
2203/0001	. .	Type of application of the stress	2203/0089	. .	Biorheological properties	2203/0091	. .	Peeling or tearing
2203/0003	. .	Steady	2203/0092	. .	Visco-elasticity, solidification, curing, cross-linking degree, vulcanisation or strength properties of semi-solid materials	2203/0094	. . .	Visco-elasticity
2203/0005	. .	Repeated or cyclic	2203/0096	. .	Fibre-matrix interaction in composites	2203/0098	. .	Tests specified by its name, e.g. Charpy, Brinell, Mullen
2203/0007	. . .	Low frequencies up to 100 Hz	2203/02	. .	Details not specific for a particular testing method	2203/0202	. .	Control of the test
2203/0008	. . .	High frequencies from 10 000 Hz	2203/0204	. . .	Safety arrangements, e.g. remote control, emergency stop			
2203/001	. .	Impulsive						
2203/0012	. .	Constant speed test						

2203/0206	. . .	Means for supplying or positioning specimens or exchangeable parts of the machine such as indenters...	2203/0411	. . .	using pneumatic or hydraulic pressure
2203/0208	. . .	Specific programs of loading, e.g. incremental loading or pre-loading	2203/0417	. . .	using vacuum
2203/021	. . .	Treatment of the signal; Calibration	2203/0423	. . .	using screws
2203/0212	. . .	Theories, calculations	2203/0429	. . .	using adhesive bond; Gluing
2203/0214	. . . .	Calculations a priori without experimental data	2203/0435	. . .	modifying the type of the force applied, e.g. the chuck transforms a compressive machine for applying a bending test
2203/0216	. . . .	Finite elements	2203/0441	. . .	with dampers or shock absorbing means
2203/0218	. . . .	Calculations based on experimental data	2203/0447	. . .	Holders for quick insertion/removal of test pieces
2203/022	. .	Environment of the test	2203/0452	. . .	Cushioning layer between test piece and grip
2203/0222	. . .	Temperature	2203/0458	. . .	characterised by their material
2203/0224	. . . .	Thermal cycling	2203/0464	. . .	with provisions for testing more than one specimen at the time
2203/0226	. . . .	High temperature; Heating means	2203/047	. . . .	in series
2203/0228	. . . .	Low temperature; Cooling means	2203/0476	. . . .	in parallel
2203/023	. . .	Pressure	2203/0482	. . .	comprising sensing means
2203/0232	. . . .	High pressure	2203/0488	. . . .	Diamond anvil cells
2203/0234	. . . .	Low pressure; Vacuum	2203/0494	. . . .	Clamping ring, "whole periphery" clamping
2203/0236	. . .	Other environments	2203/06	. .	Indicating or recording means; Sensing means
2203/0238	. . . .	Inert	2203/0605	. . .	Mechanical indicating, recording or sensing means
2203/024	. . . .	Corrosive	2203/0611	. . .	Hydraulic or pneumatic indicating, recording or sensing means
2203/0242	. . . .	With circulation of a fluid	2203/0617	. . .	Electrical or magnetic indicating, recording or sensing means
2203/0244	. . .	Tests performed "in situ" or after "in situ" use	2203/0623	. . . .	using piezoelectric gauges
2203/0246	. . . .	Special simulation of "in situ" conditions, scale models or dummies	2203/0629	. . . .	using thin films, paintings
2203/0248	. . .	Tests "on-line" during fabrication	2203/0635	. . . .	using magnetic properties
2203/025	. .	Geometry of the test	2203/0641	. . .	using optical, X-ray, ultraviolet, infrared or similar detectors
2203/0252	. . .	Monoaxial, i.e. the forces being applied along a single axis of the specimen	2203/0647	. . . .	Image analysis
2203/0254	. . .	Biaxial, the forces being applied along two normal axes of the specimen	2203/0652	. . . .	using contrasting ink, painting, staining
2203/0256	. . .	Triaxial, i.e. the forces being applied along three normal axes of the specimen	2203/0658	. . .	using acoustic or ultrasonic detectors
2203/0258	. . .	Non axial, i.e. the forces not being applied along an axis of symmetry of the specimen	2203/0664	. . .	using witness specimens
2203/026	. .	Specifications of the specimen	2203/067	. . .	Parameter measured for estimating the property
2203/0262	. . .	Shape of the specimen	2203/0676	. . . .	Force, weight, load, energy, speed or acceleration
2203/0264	. . . .	Beam	2203/0682	. . . .	Spatial dimension, e.g. length, area, angle
2203/0266	. . . .	Cylindrical specimens	2203/0688	. . . .	Time or frequency
2203/0268	. . . .	Dumb-bell specimens	2203/0694	. . . .	Temperature
2203/027	. . . .	Specimens with holes or notches	2223/00		Investigating materials by wave or particle radiation
2203/0272	. . . .	Cruciform specimens	2223/01	. .	by radioactivity, nuclear decay
2203/0274	. . . .	Tubular or ring-shaped specimens	2223/03	. .	by transmission
2203/0276	. . . .	Spherical specimens	2223/04	. . .	and measuring absorption
2203/0278	. . . .	Thin specimens	2223/041	. . .	X-ray absorption fine structure [EXAFS]
2203/028	. . . . .	One dimensional, e.g. filaments, wires, ropes or cables	2223/043	. . .	gamma ray resonance absorption (Mossbauer effect)
2203/0282	. . . . .	Two dimensional, e.g. tapes, webs, sheets, strips, disks or membranes	2223/045	. .	combination of at least 2 measurements (transmission and scatter)
2203/0284	. . .	Bulk material, e.g. powders	2223/05	. .	by diffraction, scatter or reflection
2203/0286	. . .	Miniature specimen; Testing on microregions of a specimen	2223/051	. .	correcting for scatter
2203/0288	. . .	Springs	2223/052	. .	reflection
2203/029	. . . .	Leaf spring	2223/053	. .	back scatter
2203/0292	. . . .	Coil spring	2223/054	. .	small angle scatter
2203/0294	. . . .	Airs-spring, air bag spring or bellows	2223/055	. .	scatter raster collimator
2203/0296	. . .	Welds	2223/056	. .	diffraction
2203/0298	. . .	Manufacturing or preparing specimens	2223/0561	. . .	diffraction cameras
2203/04	. .	Chucks, fixtures, jaws, holders or anvils	2223/0563	. . .	measure of energy-dispersion spectrum of diffracted radiation
2203/0405	. . .	Features allowing alignment between specimen and chucks	2223/0565	. . .	diffraction of electrons, e.g. LEED

2223/0566	. . . analysing diffraction pattern	2223/307	. . cuvettes-sample holders
2223/0568	. . . spectro-diffractometry	2223/3075	. . . correcting for the properties of the container, e.g. empty
2223/063	. . inelastic scatter, e.g. Compton effect	2223/308	. . support of radiation source
2223/064	. . interference of radiation, e.g. Borrmann effect	2223/309	. . support of sample holder
2223/07	. secondary emission	2223/31	. . temperature control
2223/071	. . combination of measurements, at least 1 secondary emission	2223/3103	. . . cooling, cryostats
2223/072	. . combination of measurements, 2 kinds of secondary emission	2223/3106	. . . heating, furnaces
2223/073	. . use of a laser	2223/311	. . high pressure testing, anvil cells
2223/074	. . activation analysis	2223/312	. . powder preparation
2223/0745	. . . neutron-gamma activation analysis	2223/313	. . filters, rotating filter disc
2223/076	. . X-ray fluorescence	2223/314	. . chopper
2223/0763	. . . Compton background correcting	2223/315	. . monochromators
2223/0766	. . . X-ray fluorescence with indicator, tags	2223/316	. . collimators
2223/079	. . incident electron beam and measuring excited X-rays	2223/317	. . windows
2223/08	. . incident electron beam and measuring cathode luminescence (U.V.)	2223/318	. . protective films
2223/081	. . incident ion beam, e.g. proton	2223/319	. . using opaque penetrant medium
2223/0813	. . . incident ion beam and measuring X-rays [PIXE]	2223/32	. . adjustments of elements during operation
2223/0816	. . . incident ion beam and measuring secondary ion beam [SIMS]	2223/321	. . manipulator for positioning a part
2223/084	. . photo-electric effect	2223/322	. . immersed detecting head
2223/085	. . photo-electron spectrum [ESCA, XPS]	2223/323	. . irradiation range monitor, e.g. light beam
2223/086	. . Auger electrons	2223/33	. . scanning, i.e. relative motion for measurement of successive object-parts
2223/09	. . exo-electron emission	2223/3301	. . . beam is modified for scan, e.g. moving collimator
2223/095	. . tribo-emission	2223/3302	. . . object and detector fixed
2223/10	. Different kinds of radiation or particles	2223/3303	. . . object fixed; source and detector move
2223/1003	. . monochromatic	2223/3304	. . . helicoidal scan
2223/1006	. . different radiations, e.g. X and alpha	2223/3305	. . . detector fixed; source and body moving
2223/101	. . electromagnetic radiation	2223/3306	. . . object rotates
2223/1013	. . . gamma	2223/3307	. . . source and detector fixed; object moves
2223/1016	. . . X-ray	2223/3308	. . . object translates
2223/102	. . beta or electrons	2223/331	. . rocking curve analysis
2223/104	. . ions	2223/335	. . electronic scanning
2223/1045	. . . alpha	2223/34	. . sensing means for gap between source and detector
2223/105	. . molecular or atomic beams	2223/345	. . mathematical transformations on beams or signals, e.g. Fourier
2223/106	. . neutrons	2223/348	. . ellipsoidal collector
2223/1063	. . . fast	2223/351	. . prohibiting charge accumulation on sample substrate
2223/1066	. . . thermal	2223/40	. Imaging
2223/107	. . protons	2223/401	. . image processing
2223/108	. . positrons; electron-positron annihilation	2223/402	. . mapping distribution of elements
2223/11	. . neutrino	2223/403	. . mapping with false colours
2223/20	. Sources of radiation	2223/404	. . contrast medium
2223/201	. . betatron	2223/405	. . mapping of a material property
2223/202	. . isotopes	2223/406	. . fluoroscopic image
2223/203	. . synchrotron	2223/407	. . stimuable phosphor sheet
2223/204	. . source created from radiated target	2223/408	. . display on monitor
2223/205	. . natural source	2223/409	. . embedding or impregnating the object
2223/206	. . sources operating at different energy levels	2223/41	. . imaging specifically internal structure
2223/30	. Accessories, mechanical or electrical features	2223/411	. . tv imaging from fluorescent screen
2223/301	. . portable apparatus	2223/412	. . use of image converter tube [PMT]
2223/302	. . comparative arrangements	2223/413	. . sensor array [CCD]
2223/303	. . calibrating, standardising	2223/414	. . stereoscopic system
2223/3032	. . . periodic calibration, e.g. with filter wheel	2223/415	. . radiographic film
2223/3035	. . . phantom	2223/416	. . wrap around
2223/3037	. . . standards (constitution)	2223/417	. . recording with co-ordinate markings
2223/304	. . electric circuits, signal processing	2223/418	. . electron microscope
2223/305	. . computer simulations	2223/419	. . computed tomograph
2223/306	. . computer control	2223/42	. . image digitised, -enhanced in an image processor

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	. . infrared	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		
2223/606	. . texture	2291/00	Indexing codes associated with group G01N 29/00
2223/607	. . strain	2291/01	. Indexing codes associated with the measuring variable
2223/608	. . superconductors	2291/011	. . Velocity or travel time
2223/61	. . thin films, coatings	2291/012	. . Phase angle
2223/611	. . patterned objects; electronic devices	2291/014	. . Resonance or resonant frequency
2223/6113	. . . printed circuit board [PCB]	2291/015	. . Attenuation, scattering
2223/6116	. . . semiconductor wafer	2291/017	. . Doppler techniques
2223/612	. . biological material	2291/018	. . Impedance
2223/6123	. . . bone mineral	2291/02	. Indexing codes associated with the analysed material
2223/6126	. . . tissue	2291/021	. . Gases
2223/613	. . moisture	2291/0212	. . . Binary gases
2223/614	. . road surface	2291/0215	. . . Mixtures of three or more gases, e.g. air
2223/615	. . composite materials, multilayer laminates	2291/0217	. . . Smoke, combustion gases
2223/616	. . earth materials	2291/022	. . Liquids
2223/617	. . ash in coal	2291/0222	. . . Binary liquids
2223/618	. . food	2291/0224	. . . Mixtures of three or more liquids
2223/619	. . wood	2291/0226	. . . Oils, e.g. engine oils
2223/62	. . powders	2291/0228	. . . Aqueous liquids
2223/621	. . tobacco	2291/023	. . Solids
2223/622	. . paper	2291/0231	. . . Composite or layered materials
2223/623	. . plastics	2291/0232	. . . Glass, ceramics, concrete or stone
2223/624	. . steel, castings	2291/0234	. . . Metals, e.g. steel
2223/625	. . nuclear fuels, laser imploded targets	2291/0235	. . . Plastics; polymers; soft materials, e.g. rubber
2223/626	. . radioactive material	2291/0237	. . . Thin materials, e.g. paper, membranes, thin films
2223/6265	. . . sample with radioactive tracer, tag, label	2291/0238	. . . Wood
2223/627	. . tyres	2291/024	. . Mixtures
2223/628	. . tubes, pipes	2291/02408	. . . Solids in gases, e.g. particle suspensions
2223/629	. . welds, bonds, sealing compounds	2291/02416	. . . Solids in liquids
2223/63	. . turbine blades	2291/02425	. . . Liquids in gases, e.g. sprays
2223/631	. . large structures, walls	2291/02433	. . . Gases in liquids, e.g. bubbles, foams
2223/632	. . residual life, life expectancy	2291/02441	. . . Liquids in porous solids
2223/633	. . thickness, density, surface weight (unit area)	2291/0245	. . . Gases in porous solids
		2291/02458	. . . Solids in solids, e.g. granules

2291/02466	. . .	Biological material, e.g. blood
2291/02475	. . .	Tissue characterisation
2291/02483	. . .	Other human or animal parts, e.g. bones
2291/02491	. . .	Materials with nonlinear acoustic properties
2291/025	. .	Change of phase or condition
2291/0251	. . .	Solidification, icing, curing composites, polymerisation
2291/0252	. . .	Melting, molten solids
2291/0253	. . .	Condensation
2291/0254	. . .	Evaporation
2291/0255	. . .	(Bio)chemical reactions, e.g. on biosensors
2291/0256	. . .	Adsorption, desorption, surface mass change, e.g. on biosensors
2291/0257	. . . .	with a layer containing at least one organic compound
2291/0258	. . .	Structural degradation, e.g. fatigue of composites, ageing of oils
2291/028	. .	Material parameters
2291/02809	. . .	Concentration of a compound, e.g. measured by a surface mass change
2291/02818	. . .	Density, viscosity
2291/02827	. . .	Elastic parameters, strength or force
2291/02836	. . .	Flow rate, liquid level
2291/02845	. . .	Humidity, wetness
2291/02854	. . .	Length, thickness
2291/02863	. . .	Electric or magnetic parameters
2291/02872	. . .	Pressure
2291/02881	. . .	Temperature
2291/0289	. . .	Internal structure, e.g. defects, grain size, texture
2291/04	. .	Wave modes and trajectories
2291/042	. .	Wave modes
2291/0421	. . .	Longitudinal waves
2291/0422	. . .	Shear waves, transverse waves, horizontally polarised waves
2291/0423	. . .	Surface waves, e.g. Rayleigh waves, Love waves
2291/0425	. . .	Parallel to the surface, e.g. creep waves
2291/0426	. . .	Bulk waves, e.g. quartz crystal microbalance, torsional waves
2291/0427	. . .	Flexural waves, plate waves, e.g. Lamb waves, tuning fork, cantilever
2291/0428	. . .	Mode conversion
2291/043	. .	Complex trajectories
2291/044	. .	Internal reflections (echoes), e.g. on walls or defects
2291/045	. .	External reflections, e.g. on reflectors
2291/048	. .	Transmission, i.e. analysed material between transmitter and receiver
2291/051	. .	Perpendicular incidence, perpendicular propagation
2291/052	. .	Perpendicular incidence, angular propagation
2291/055	. .	Angular incidence, perpendicular propagation
2291/056	. .	Angular incidence, angular propagation
2291/057	. .	Angular incidence, parallel to surface propagation
2291/10	. .	Number of transducers
2291/101	. .	one transducer
2291/102	. .	one emitter, one receiver
2291/103	. .	one emitter, two or more receivers
2291/104	. .	two or more emitters, one receiver
2291/105	. .	two or more emitters, two or more receivers
2291/106	. .	one or more transducer arrays
2291/26	. .	Scanned objects
2291/262	. .	Linear objects
2291/2623	. . .	Rails; Railroads
2291/2626	. . .	Wires, bars, rods
2291/263	. .	Surfaces
2291/2632	. . .	flat
2291/2634	. . .	cylindrical from outside
2291/2636	. . .	cylindrical from inside
2291/2638	. . .	Complex surfaces
2291/265	. .	Spherical objects
2291/267	. .	Welds
2291/2672	. . .	Spot welding
2291/2675	. . .	Seam, butt welding
2291/2677	. . .	Lapp welding
2291/269	. .	Various geometry objects
2291/2691	. . .	Bolts, screws, heads
2291/2692	. . .	Tyres
2291/2693	. . .	Rotor or turbine parts
2291/2694	. . .	Wings or other aircraft parts
2291/2695	. . .	Bottles, containers
2291/2696	. . .	Wheels, Gears, Bearings
2291/2697	. . .	Wafer or (micro)electronic parts
2291/2698	. . .	Other discrete objects, e.g. bricks
2333/00		Assays involving biological materials from specific organisms or of a specific nature
NOTE		
In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned according to the chemical nature of the materials irrespective of the source organism.		
2333/001	. .	by chemical synthesis
2333/003	. .	of Peptide-nucleic acids (PNAs)
2333/005	. .	from viruses
2333/01	. .	DNA viruses
2333/015	. . .	Parvoviridae, e.g. feline panleukopenia virus, human Parvovirus
2333/02	. . .	Hepadnaviridae, e.g. hepatitis B virus
2333/025	. . .	Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus
2333/03	. . .	Herpetoviridae, e.g. pseudorabies virus
2333/032	. . . .	Pseudorabies virus, i.e. Aujeszky virus
2333/035	. . . .	Herpes simplex virus I or II
2333/04	. . . .	Varicella-zoster virus
2333/045	. . . . .	Cytomegalovirus
2333/05	. . . .	Epstein-Barr virus
2333/055	. . . .	Marek's disease virus
2333/06	. . . .	Infectious bovine rhinotracheitis virus
2333/065	. . . .	Poxviridae, e.g. avipoxvirus
2333/07	. . . .	Vaccinia virus; Variola virus
2333/075	. . . .	Adenoviridae
2333/08	. .	RNA viruses
2333/085	. . .	Picornaviridae, e.g. coxsackie virus, echovirus, enterovirus
2333/09	. . . .	Foot-and-mouth disease virus
2333/095	. . . .	Rhinovirus
2333/10	. . . .	Hepatitis A virus
2333/105	. . . .	Poliovirus
2333/11	. . .	Orthomyxoviridae, e.g. influenza virus
2333/115	. . .	Paramyxoviridae, e.g. parainfluenza virus
2333/12	. . . .	Mumps virus; Measles virus

2333/125	. . . .	Newcastle disease virus	2333/26	. . .	Klebsiella (G)
2333/13	. . . .	Canine distemper virus	2333/265	. . .	Enterobacter (G)
2333/135	. . . .	Respiratory syncytial virus	2333/27	. . .	Erwinia (G)
2333/14	. . .	Reoviridae, e.g. rotavirus, bluetongue virus, Colorado tick fever virus	2333/275	. . .	Hafnia (G)
2333/145	. . .	Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokola virus or vesicular stomatitis virus	2333/28	. .	from Vibrionaceae (F)
2333/15	. . .	Retroviridae, e.g. bovine leukaemia virus, feline leukaemia virus, feline leukaemia virus, human T-cell leukaemia-lymphoma virus	2333/285	. .	from Pasteurellaceae (F), e.g. Haemophilus influenza
2333/155	. . . .	Lentiviridae, e.g. visna-maedi virus, equine infectious virus, FIV, SIV	2333/29	. .	from Richettsiales (o)
2333/16	. . . . .	HIV-1, HIV-2	2333/295	. .	from Chlamydiales (o)
2333/161	. . . . .	gag-pol, e.g. p55, p24/25, p17/18, p7, p6, p66/68, p51/52, p31/34, p32, p40	2333/30	. .	from Mycoplasmatales, e.g. Pleuropneumonia-like organisms [PPLO]
2333/162	. . . . .	env, e.g. gp160, gp110/120, gp41, V3, peptid T, DC4-Binding site	2333/305	. .	from Micrococcaceae (F)
2333/163	. . . . .	Regulatory proteins, e.g. tat, nef, rev, vif, vpu, vpr, vpt, vpx	2333/31	. . .	from Staphylococcus (G)
2333/165	. . .	Coronaviridae, e.g. avian infectious bronchitis virus	2333/315	. .	from Streptococcus (G), e.g. Enterococci
2333/17	. . . .	Porcine transmissible gastroenteritis virus	2333/3153	. . .	Streptokinase
2333/175	. . .	Bunyaviridae, e.g. California encephalitis virus, Rift valley fever virus, Hantaan virus	2333/3156	. . .	from Streptococcus pneumoniae [Pneumococcus]
2333/18	. . .	Togaviridae; Flaviviridae	2333/32	. .	from Bacillus (G)
2333/181	. . . .	Alphaviruses or Group A arboviruses, e.g. sindbis, VEE, EEE, WEE or semliki forest virus	2333/325	. . .	Bacillus thuringiensis crystal protein (delta-endotoxin)
2333/183	. . . .	Flaviviridae, e.g. pestivirus, mucosal disease virus, bovine viral diarrhoea virus, classical swine fever virus (hog cholera virus) or border disease virus	2333/33	. .	from Clostridium (G)
2333/185	. . . . .	Flaviviruses or Group B arboviruses, e.g. yellow fever virus, japanese encephalitis, tick-borne encephalitis, dengue	2333/335	. .	from Lactobacillus (G)
2333/186	. . . . .	Hepatitis C; Hepatitis NANB	2333/34	. .	from Corynebacterium (G)
2333/188	. . . . .	Hepatitis G; Hepatitis NANBNCNDNE	2333/345	. .	from Brevibacterium (G)
2333/19	. . . .	Rubella virus	2333/35	. .	from Mycobacteriaceae (F)
2333/195	. .	from bacteria	2333/355	. .	from Nocardia (G)
NOTE			2333/36	. .	from Actinomyces; from Streptomyces (G)
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.			2333/365	. .	from Actinoplanes (G)
2333/20	. .	from Spirochaetales (O), e.g. Treponema, Leptospira	2333/37	. .	from fungi
2333/205	. .	from Campylobacter (G)	2333/375	. .	from Basidiomycetes
2333/21	. .	from Pseudomonadaceae (F)	2333/38	. .	from Aspergillus
2333/212	. . .	Moraxellaceae, e.g. Acinetobacter, Moraxella, Oligella or Psychrobacter	2333/385	. .	from Penicillium
2333/215	. .	from Halobacteriaceae (F)	2333/39	. .	from yeasts
2333/22	. .	from Neisseriaceae (F), e.g. Acinetobacter	2333/395	. . .	from Saccharomyces
2333/225	. .	from Alcaligenes (G)	2333/40	. . .	from Candida
2333/23	. .	from Brucella (G)	2333/405	. .	from algae
2333/235	. .	from Bordetella (G)	2333/41	. .	from lichens
2333/24	. .	from Enterobacteriaceae (F), e.g. Citrobacter, Serratia, Proteus, Providencia, Morganella, Yersinia	2333/415	. .	from plants
2333/245	. . .	Escherichia (G)	2333/42	. .	Lectins, e.g. concanavalin, phytohaemagglutinin
2333/25	. . .	Shigella (G)	2333/425	. .	Zeins
2333/255	. . .	Salmonella (G)	2333/43	. .	Sweetening agents, e.g. thaumatin, monellin
			2333/435	. .	from animals; from humans
			2333/43504	. .	from invertebrates
			2333/43508	. . .	from crustaceans
			2333/43513	. . .	from arachnidae
			2333/43517	. . . .	from spiders
			2333/43521	. . . .	from scorpions
			2333/43526	. . .	from worms
			2333/4353	. . . .	from nematodes
			2333/43534	. . . . .	from Caenorhabditis
			2333/43539	. . . .	from cestodes
			2333/43543	. . . . .	from Taenia
			2333/43547	. . . .	from trematodes
			2333/43552	. . .	from insects
			2333/43556	. . . .	from ticks
			2333/4356	. . . .	from wasps
			2333/43565	. . . .	from bees
			2333/43569	. . . .	from flies
			2333/43573	. . . . .	from Drosophila
			2333/43578	. . . .	from silkworm
			2333/43582	. . . .	from mites
			2333/43586	. . . .	from fleas

2333/43591	. . . .	from mosquitoes	2333/474	. . . . .	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); Batroboxin; 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); Crotolase	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
2333/47	. . .	Assays involving proteins of known structure or function as defined in the subgroups	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
2333/4701	. . . .	Details	2333/524	. . .	Thrombopoietin, i.e. C-MPL ligand
2333/4703	. . . . .	Regulators; Modulating activity	2333/525	. . .	Tumor necrosis factor [TNF]
2333/4704	. . . . .	Inhibitors; Suppressors	2333/5255	. . . .	Lymphotoxin [LT]
2333/4706	. . . . .	stimulating, promoting or activating activity	2333/53	. . .	Colony-stimulating factor [CSF]
2333/4707	. . . . .	Guanosine triphosphatase activating protein, GAP	2333/535	. . . .	Granulocyte CSF; Granulocyte-macrophage CSF
2333/4709	. . . . .	Amyloid plaque core protein	2333/54	. . .	Interleukins [IL]
2333/471	. . . . .	Pregnancy proteins, e.g. placenta proteins, alpha-feto-protein, pregnancy specific beta glycoprotein	2333/5403	. . . .	IL-3
2333/4712	. . . . .	Muscle proteins, e.g. myosin, actin, protein	2333/5406	. . . .	IL-4
2333/4713	. . . . .	Plasma globulins, lactoglobulin	2333/5409	. . . .	IL-5
2333/4715	. . . . .	Cytokine-induced proteins	2333/5412	. . . .	IL-6
2333/4716	. . . . .	Complement proteins, e.g. anaphylatoxin, C3a, C5a	2333/5415	. . . .	Leukaemia inhibitory factor [LIF]
2333/4718	. . . . .	Lipocortins	2333/5418	. . . .	IL-7
2333/4719	. . . . .	G-proteins	2333/5421	. . . .	IL-8
2333/4721	. . . . .	Cationic antimicrobial peptides, e.g. defensins	2333/5425	. . . .	IL-9
2333/4722	. . . . .	Proteoglycans, e.g. aggrecan	2333/5428	. . . .	IL-10
2333/4724	. . . . .	Lectins	2333/5431	. . . .	IL-11
2333/4725	. . . . .	Mucins, e.g. human intestinal mucin	2333/5434	. . . .	IL-12
2333/4727	. . . . .	Calcium binding proteins, e.g. calmodulin	2333/5437	. . . .	IL-13
2333/4728	. . . . .	alpha-Glycoproteins	2333/544	. . . .	IL-14
2333/473	. . . . .	Recognins, e.g. malignin	2333/5443	. . . .	IL-15
2333/4731	. . . . .	Casein	2333/5446	. . . .	IL-16
2333/4733	. . . . .	Acute pancreatitis-associated protein	2333/545	. . . .	IL-1
2333/4734	. . . . .	Villin	2333/55	. . . .	IL-2
2333/4736	. . . . .	Retinoblastoma protein	2333/555	. . .	Interferons [IFN]
2333/4737	. . . . .	C-reactive protein	2333/56	. . . .	IFN-alpha
2333/4739	. . . . .	Cyclin; Prad 1	2333/565	. . . .	IFN-beta

2333/57	. . . . IFN-gamma	2333/70542	. . . . CD106
2333/575	. . Hormones	2333/70546	. . . Integrin superfamily, e.g. VLAs, leuCAM, GPIIb/GPIIIa, LPAM
2333/5751	. . . Corticotropin releasing factor [CRF] (Urotensin)	2333/7055	. . . . Integrin beta1-subunit-containing molecules, e.g. CD29, CD49
2333/5752	. . . Placental lactogen; Chorionic Somatomammotropin	2333/70553	. . . . Integrin beta2-subunit-containing molecules, e.g. CD11, CD18
2333/5753	. . . Calcitonin gene related peptide	2333/70557	. . . . Integrin beta3-subunit-containing molecules, e.g. CD41, CD51, CD61
2333/5754	. . . Endothelin, vasoactive intestinal contractor [VIC]	2333/7056	. . . Selectin superfamily, e.g. LAM-1, GlyCAM, ELAM-1, PADGEM
2333/5755	. . . Neuropeptide Y	2333/70564	. . . . Selectins, e.g. CD62
2333/5756	. . . Prolactin	2333/70567	. . . Nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, nuclear orphan receptors
2333/5757	. . . Vasoactive intestinal peptide [VIP] or related peptides	2333/70571	. . . for neuromediators, e.g. serotonin receptor, dopamine receptor
2333/5758	. . . Gastrin releasing peptide	2333/70575	. . . NGF/TNF-superfamily, e.g. CD70, CD95L, CD153 or CD154
2333/5759	. . . Thymosin or related peptides	2333/70578	. . . NGF-receptor/TNF-receptor superfamily, e.g. CD27, CD30 CD40 or CD95
2333/58	. . . Atrial natriuretic factor complex; Atriopeptin; Atrial natriuretic peptide [ANP]; Brain natriuretic peptide [BNP, proBNP]; Cardionatrin; Cardiodilatin	2333/70582	. . . CD71
2333/585	. . . Calcitonins	2333/70585	. . . CD44
2333/59	. . . Follicle-stimulating hormone [FSH]; Chorionic gonadotropins, e.g. HCG; Luteinising hormone [LH]; Thyroid-stimulating hormone [TSH]	2333/70589	. . . CD45
2333/595	. . . Gastrins; Cholecystokinins [CCK]	2333/70592	. . . CD52
2333/60	. . . Growth-hormone releasing factors (GH-RF) (Somatoliberin)	2333/70596	. . . Molecules with a "CD"-designation not provided for elsewhere in G01N 2333/705
2333/605	. . . Glucagons	2333/71	. . . for growth factors; for growth regulators
2333/61	. . . Growth hormones [GH] (Somatotropin)	2333/715	. . . for cytokines; for lymphokines; for interferons
2333/62	. . . Insulins	2333/7151	. . . . for tumor necrosis factor [TNF]; for lymphotoxin [LT]
2333/63	. . . Motilins	2333/7153	. . . . or colony-stimulating factors [CSF]
2333/635	. . . Parathyroid hormone (parathormone); Parathyroid hormone-related peptides	2333/7155	. . . . for interleukins [IL]
2333/64	. . . Relaxins	2333/7156	. . . . for interferons [IFN]
2333/645	. . . Secretins	2333/7158	. . . . for chemokines
2333/65	. . . Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2	2333/72	. . . for hormones
2333/655	. . . Somatostatins	2333/723	. . . . Steroid/thyroid hormone superfamily, e.g. GR, EcR, androgen receptor, oestrogen receptor
2333/66	. . . Thymopoietins	2333/726	. . . . G protein coupled receptor, e.g. TSHR-thyrotropin-receptor, LH/hCG receptor, FSH
2333/665	. . Assays involving proteins derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin	2333/745	. . Assays involving non-enzymic blood coagulation factors
2333/67	. . . Lipotropins, e.g. beta, gamma lipotropin	2333/7452	. . . Thrombomodulin
2333/675	. . . beta-Endorphins	2333/7454	. . . Tissue factor (tissue thromboplastin, Factor III)
2333/68	. . . Melanocyte-stimulating hormone [MSH]	2333/7456	. . . Factor V
2333/685	. . . . alpha-Melanotropin	2333/7458	. . . Protein S
2333/69	. . . . beta-Melanotropin	2333/75	. . . Fibrin; Fibrinogen
2333/695	. . . Corticotropin [ACTH]	2333/755	. . . Factors VIII, e.g. factor VIII C [AHF], factor VIII Ag [VWF]
2333/70	. . . Enkephalins	2333/76	. . Assays involving albumins other than in routine use for blocking surfaces or for anchoring haptens during immunisation
2333/705	. . Assays involving receptors, cell surface antigens or cell surface determinants	2333/765	. . . Serum albumin, e.g. HSA
2333/70503	. . . Immunoglobulin superfamily, e.g. VCAMs, PECAM, LFA-3	2333/77	. . . Ovalbumin
2333/70507	. . . . C2D	2333/775	. . Apolipopptides
2333/7051	. . . . T-cell receptor (TcR)-CD3 complex	2333/78	. . Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]
2333/70514	. . . . CD4	2333/785	. . Alveolar surfactant peptides; Pulmonary surfactant peptides
2333/70517	. . . . CD8	2333/79	. . Transferrins, e.g. lactoferrins, ovotransferrins
2333/70521	. . . . CD28, CD152	2333/795	. . Porphyrin- or corrin-ring-containing peptides
2333/70525	. . . . ICAM molecules, e.g. CD50, CD54, CD102	2333/80	. . Cytochromes
2333/70528	. . . . CD58		
2333/70532	. . . . B7 molecules, e.g. CD80, CD86		
2333/70535	. . . . Fc-receptors, e.g. CD16, CD32, CD64 (CD2314/705F)		
2333/70539	. . . . MHC-molecules, e.g. HLA-molecules		

2333/805	. . 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.-)
NOTE		2333/90622	. . . . . Phenylalanine dehydrogenase (1.4.1.20)
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.		2333/90627	. . . . . with a cytochrome as acceptor (1.4.2)
2333/9005	. . Enzymes with nucleic acid structure; e.g. ribozymes	2333/90633	. . . . . with oxygen as acceptor (1.4.3) in general
2333/901	. . Antibodies with enzymatic activity; e.g. abzymes	2333/90638	. . . . . with a definite EC number (1.4.3.-)
2333/9015	. . Ligases (6)	2333/90644	. . . . . D-Amino acid oxidase (1.4.3.3)
2333/902	. . Oxidoreductases (1.)	2333/9065	. . . . acting on CH-NH groups of donors (1.5)
2333/90203	. . . acting on the aldehyde or oxo group of donors (1.2)	2333/90655	. . . . . with NAD or NADP as acceptor (1.5.1) in general
2333/90206	. . . acting on the CH-CH group of donors (1.3)	2333/90661	. . . . . with a definite EC number (1.5.1.-)
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)	2333/90666	. . . . . Dihydrofolate reductase [DHFR] (1.5.1.3)
2333/90212	. . . acting on a sulfur group of donors (1.8)	2333/90672	. . . . . with oxygen as acceptor (1.5.3) in general
2333/90216	. . . acting on a heme group of donors (1.9)	2333/90677	. . . . . with a definite EC number (1.5.3.-)
2333/90219	. . . acting on diphenols and related substances as donors (1.10)	2333/90683	. . . . . Sarcosine oxidase (1.5.3.1)
2333/90222	. . . . with oxygen as acceptor (1.10.3) in general	2333/90688	. . . . acting on other nitrogen compounds as donors (1.7)
2333/90225	. . . . . with a definite EC number (1.10.3.-)	2333/90694	. . . . . with oxygen as acceptor (1.7.3), e.g. uricase (1.7.3.3)
2333/90229	. . . . . Catechol oxidase, i.e. Tyrosinase (1.10.3.1)	2333/908	. . . acting on hydrogen peroxide as acceptor (1.11)
2333/90232	. . . . . Laccase (1.10.3.2)	2333/91	. . Transferases (2.)
2333/90235	. . . . . Ascorbate oxidase (1.10.3.3)	2333/91005	. . . transferring one-carbon groups (2.1)
2333/90238	. . . acting on hydrogen as donor (1.12)	2333/91011	. . . . Methyltransferases (general) (2.1.1.)
2333/90241	. . . acting on single donors with incorporation of molecular oxygen, i.e. oxygenases (1.13)	2333/91017	. . . . . with definite EC number (2.1.1.-)
2333/90245	. . . acting on paired donors with incorporation of molecular oxygen (1.14)	2333/91022	. . . . . Catecholmethyltransferases (2.1.1.6)
2333/90248	. . . . with NADH or NADPH as one of the donors, and incorporation of one atom of oxygen 1.14.13	2333/91028	. . . . Hydroxymethyl-, formyl-transferases (2.1.2)
2333/90251	. . . . . with a definite EC number (1.14.13.-)	2333/91034	. . . . Carboxyl- and carbamoyl transferases (2.1.3)
		2333/9104	. . . Aldehyde and ketone transferases (2.2)
		2333/91045	. . . Acyltransferases (2.3)
		2333/91051	. . . . Acyltransferases other than aminoacyltransferases (general) (2.3.1)
		2333/91057	. . . . . with definite EC number (2.3.1.-)
		2333/91062	. . . . . Chloramphenicol-acetyltransferases (2.3.1.28)
		2333/91068	. . . . . Chalcone synthases (2.3.1.74)
		2333/91074	. . . . Aminoacyltransferases (general) (2.3.2)

2333/9108	. . . . .	with definite EC number (2.3.2.-)	2333/918	. . . . .	Carboxylic ester hydrolases (3.1.1)
2333/91085	. . . . .	Transglutaminases; Factor XIIIq (2.3.2.13)	2333/92	. . . . .	Triglyceride splitting, e.g. by means of lipase
2333/91091	. . . . .	Glycosyltransferases (2.4)	2333/922	. . . . .	Ribonucleases (RNAses); Deoxyribonucleases (DNAses)
2333/91097	. . . . .	Hexosyltransferases (general) (2.4.1)	2333/924	. . . . .	acting on glycosyl compounds (3.2)
2333/91102	. . . . .	with definite EC number (2.4.1.-)	2333/926	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/91108	. . . . .	Levansucrases (2.4.1.10)	2333/928	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/91114	. . . . .	Cellulose synthases (2.4.1.12)	2333/93	. . . . .	Fungal source
2333/91112	. . . . .	Sucrose synthases (2.4.1.13)	2333/932	. . . . .	alpha-amylase from plant source
2333/91125	. . . . .	Sucrose phosphate synthases (2.4.1.14)	2333/934	. . . . .	Glucoamylase
2333/91131	. . . . .	Glucan branching enzymes (2.4.1.18)	2333/936	. . . . .	acting on beta-1, 4 bonds between N-acetylmuramic acid and 2-acetyl-amino 2-deoxy-D-glucose, e.g. lysozyme
2333/91137	. . . . .	Cyclomalto dextrin glucano transferases (2.4.1.19)	2333/938	. . . . .	acting on beta-galactose-glycoside bonds, e.g. beta-galactosidase
2333/91142	. . . . .	Pentosyltransferases (2.4.2)	2333/94	. . . . .	acting on alpha-galactose-glycoside bonds, e.g. alpha-galactosidase
2333/91148	. . . . .	transferring other glycosyl groups (2.4.99)	2333/942	. . . . .	acting on beta-1, 4-glucosidic bonds, e.g. cellulase
2333/91154	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/944	. . . . .	acting on alpha-1, 6-glucosidic bonds, e.g. isoamylase, pullulanase
2333/9116	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/946	. . . . .	Dextranase
2333/91165	. . . . .	general (2.5.1)	2333/948	. . . . .	acting on peptide bonds (3.4)
2333/91171	. . . . .	with definite EC number (2.5.1.-)	2333/95	. . . . .	Proteinases, i.e. endopeptidases (3.4.21-3.4.99)
2333/91177	. . . . .	Glutathione transferases (2.5.1.18)	2333/9506	. . . . .	derived from viruses
2333/91182	. . . . .	Enolpyruvylshikimate-phosphate synthases (2.5.1.19)	2333/9513	. . . . .	derived from RNA viruses
2333/91188	. . . . .	transferring nitrogenous groups (2.6)	2333/952	. . . . .	derived from bacteria
2333/91194	. . . . .	transferring sulfur containing groups (2.8)	2333/954	. . . . .	bacteria being Bacillus
2333/912	. . . . .	transferring phosphorus containing groups, e.g. kinases (2.7)	2333/956	. . . . .	Bacillus subtilis or Bacillus licheniformis
2333/91205	. . . . .	Phosphotransferases in general	2333/958	. . . . .	derived from fungi
2333/9121	. . . . .	with an alcohol group as acceptor (2.7.1), e.g. general tyrosine, serine or threonine kinases	2333/96	. . . . .	from yeast
2333/91215	. . . . .	with a definite EC number (2.7.1.-)	2333/962	. . . . .	from Aspergillus
2333/9122	. . . . .	Thymidine kinase (2.7.1.21)	2333/964	. . . . .	derived from animal tissue
2333/91225	. . . . .	with a carboxyl group as acceptor (2.7.2)	2333/96402	. . . . .	from non-mammals
2333/9123	. . . . .	with a nitrogenous group as acceptor (2.7.3), e.g. histidine kinases	2333/96405	. . . . .	in general
2333/91235	. . . . .	with a phosphate group as acceptor (2.7.4)	2333/96408	. . . . .	with EC number
2333/9124	. . . . .	Diphosphotransferases (2.7.6)	2333/96411	. . . . .	Serine endopeptidases (3.4.21)
2333/91245	. . . . .	Nucleotidyltransferases (2.7.7)	2333/96413	. . . . .	Cysteine endopeptidases (3.4.22)
2333/9125	. . . . .	with a definite EC number (2.7.7.-)	2333/96416	. . . . .	Aspartic endopeptidases (3.4.23)
2333/91255	. . . . .	DNA-directed RNA polymerase (2.7.7.6)	2333/96419	. . . . .	Metalloendopeptidases (3.4.24)
2333/9126	. . . . .	DNA-directed DNA polymerase (2.7.7.7)	2333/96422	. . . . .	from snakes
2333/91265	. . . . .	Polyribonucleotide nucleotidyl transferases, i.e. polynucleotide phosphorylase (2.7.7.8)	2333/96425	. . . . .	from mammals
2333/9127	. . . . .	DNA nucleotidyl-exotransferases, i.e. terminal nucleotidyl transferases (2.7.7.31)	2333/96427	. . . . .	in general
2333/91275	. . . . .	RNA-directed RNA polymerases, e.g. replicases (2.7.7.48)	2333/9643	. . . . .	with EC number
2333/9128	. . . . .	RNA-directed DNA polymerases, e.g. RT (2.7.7.49)	2333/96433	. . . . .	Serine endopeptidases (3.4.21)
2333/91285	. . . . .	RNA uridylyltransferases (2.7.7.52)	2333/96436	. . . . .	Granzymes
2333/9129	. . . . .	Transferases for other substituted phosphate groups (2.7.8)	2333/96438	. . . . .	Dibasic site splicing serine proteases, e.g. furin
2333/91295	. . . . .	with paired acceptors (2.7.9)	2333/96441	. . . . .	with definite EC number
2333/914	. . . . .	Hydrolases (3)	2333/96444	. . . . .	Factor X (3.4.21.6)
2333/916	. . . . .	acting on ester bonds (3.1), e.g. phosphatases (3.1.3), phospholipases C or phospholipases D (3.1.4)	2333/96447	. . . . .	Factor VII (3.4.21.21)
			2333/9645	. . . . .	Factor IX (3.4.21.22)
			2333/96452	. . . . .	Factor XI (3.4.21.27)
			2333/96455	. . . . .	Kallikrein (3.4.21.34; 3.4.21.35)
			2333/96458	. . . . .	Factor XII (3.4.21.38)
			2333/96461	. . . . .	Protein C (3.4.21.69)

2333/96463	. . . . .	Blood coagulation factors not provided for in a preceding group or according to more than one of the proceeding groups
2333/96466	. . . . .	Cysteine endopeptidases (3.4.22)
2333/96469	. . . . .	Interleukin 1-beta convertase-like enzymes
2333/96472	. . . . .	Aspartic endopeptidases (3.4.23)
2333/96475	. . . . .	with definite EC number
2333/96477	. . . . .	Pepsin (3.4.23.1; 3.4.23.2; 3.4.23.3)
2333/9648	. . . . .	Chymosin, i.e. rennin (3.4.23.4)
2333/96483	. . . . .	Renin (3.4.23.15)
2333/96486	. . . . .	Metalloendopeptidases (3.4.24)
2333/96488	. . . . .	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)
2333/98	. . . . .	acting on amide bonds in linear amides (3.5.1)
2333/982	. . . . .	Asparaginase
2333/984	. . . . .	Penicillin amidase
2333/986	. . . . .	acting on amide bonds in cyclic amides (3.5.2), e.g. beta-lactamase (penicillinase, 3.5.2.6), creatinine amidohydrolase (creatininase, EC 3.5.2.10), N-methylhydantoinase (3.5.2.6)
2333/988	. . . . .	Lyases (4.), e.g. aldolases, heparinase, enolases, fumarase
2333/99	. . . . .	Isomerases (5.)
2333/992	. . . . .	Glucose isomerase; Xylose isomerase; Glucose-6-phosphate isomerase
2333/994	. . . . .	Pancreatin
2400/00		Assays, e.g. immunoassays or enzyme assays, involving carbohydrates
2400/02	. . . . .	involving antibodies to sugar part of glycoproteins
2400/10	. . . . .	Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters
2400/12	. . . . .	Homoglycans, i.e. polysaccharides having a main chain consisting of one single sugar
2400/14	. . . . .	alpha-D-Glucans, i.e. having alpha 1,n (n=3,4,6) linkages between saccharide units, e.g. pullulan
2400/16	. . . . .	Starch, amylose, amylopectin
2400/18	. . . . .	Cyclodextrin
2400/22	. . . . .	Dextran
2400/24	. . . . .	beta-D-Glucans, i.e. having beta 1,n (n=3,4,6) linkages between saccharide units, e.g. xanthan
2400/26	. . . . .	Cellulose
2400/28	. . . . .	Chitin, chitosan
2400/32	. . . . .	Galactans, e.g. agar, agarose, agaropectin, carrageenan
2400/34	. . . . .	alpha-D-Galacturonans, e.g. pectin
2400/36	. . . . .	beta-D-Fructofuranans, e.g. levan, insulin
2400/38	. . . . .	Heteroglycans, i.e. polysaccharides having more than one sugar residue in the main chain in either alternating or less regular sequence, e.g. gluco- or galactomannans, Konjac gum, Locust bean gum or Guar gum
2400/40	. . . . .	Glycosaminoglycans, i.e. GAG or mucopolysaccharides, e.g. chondroitin sulfate, dermatan sulfate, hyaluronic acid, heparin, heparan sulfate, and related sulfated polysaccharides
2400/44	. . . . .	Gulurmannuronans, e.g. alginic acid
2400/46	. . . . .	Pectin
2400/48	. . . . .	Reserve carbohydrates, e.g. glycogen
2400/50	. . . . .	Lipopolysaccharides; LPS
2405/00		Assays, e.g. immunoassays or enzyme assays, involving lipids
2405/02	. . . . .	Triacylglycerols
2405/04	. . . . .	Phospholipids, i.e. phosphoglycerides
2405/06	. . . . .	Glycophospholipids, e.g. phosphatidyl inositol
2405/08	. . . . .	Sphingolipids
2405/10	. . . . .	Glycosphingolipids, e.g. cerebrosides, gangliosides
2407/00		Assays, e.g. immunoassays or enzyme assays, involving terpenes
2407/02	. . . . .	Taxol; Taxanes
2410/00		Assays, e.g. immunoassays or enzyme assays, involving peptides of less than 20 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	2474/00	Immunochemical assays or immunoassays characterised by detection mode or means of detection
2440/24	• hydroxylation	2474/10	• Immunoblots, e.g. Western blot or Dot blot
2440/26	• nitrosylation	2474/20	• Immunohistochemistry assay
2440/28	• PEGylation	2496/00	Reference solutions for assays of biological material
2440/30	• sulphation	2496/05	• containing blood cells or plasma
2440/32	• biotinylation	2496/10	• containing particles to mimic blood cells
2440/34	• addition of amino acid(s), e.g. arginylation, (poly-)glutamylolation, (poly-)glycylation	2496/15	• containing dyes to mimic optical absorption of, e.g. hemoglobin
2440/36	• addition of addition of other proteins or peptides, e.g. SUMOylation, ubiquitination	2496/25	• containing added polymers to stabilise biological material against degradation or maintain viscosity or density, e.g. gelatin, polyacrylamides or polyvinyl alcohol
2440/38	• addition of carbohydrates, e.g. glycosylation, glycation	2496/30	• • Polyethylene glycol, e.g. PEG
2440/40	• addition of nucleotides or derivatives, e.g. adenylation, flavin attachment	2496/35	• • Polyvinylpyrrolidone, e.g. PVP
2446/00	Magnetic particle immunoreagent carriers	2496/45	• containing protease inhibitors, e.g. sulfonylfluorides, chloromethylketones or organophosphates
2446/10	• the magnetic material being used to coat a pre-existing polymer particle but not being present in the particle core	2496/70	• Blood gas control solutions containing dissolved oxygen, bicarbonate and the like
2446/20	• the magnetic material being present in the particle core	2496/80	• Multi-analyte reference solutions containing cholesterol, glucose and the like
2446/30	• the magnetic material being dispersed in the polymer composition before their conversion into particulate form	2500/00	Screening for compounds of potential therapeutic value
2446/40	• the magnetic material being dispersed in the monomer composition prior to polymerisation	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)
2446/60	• the magnetic material being dispersed in a medium other than the main solvent prior to incorporation into the polymer particle	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)
2446/62	• • Magnetic material dispersed in water drop	2500/10	• involving cells
2446/64	• • Magnetic material dispersed in oil drop	2500/20	• cell-free systems
2446/66	• • Magnetic material dispersed in surfactant	2510/00	Detection of programmed cell death, i.e. apoptosis
2446/80	• characterised by the agent used to coat the magnetic particles, e.g. lipids	2520/00	Use of whole organisms as detectors of pollution
2446/84	• • Polymer coating, e.g. gelatin	2550/00	Electrophoretic profiling, e.g. for proteome analysis
2446/86	• • the coating being pre-functionalised for attaching immunoreagents, e.g. aminodextran	2560/00	Chemical aspects of mass spectrometric analysis of biological material
2446/90	• • characterised by small molecule linker used to couple immunoreagents to magnetic particles	NOTES	
2458/00	Labels used in chemical analysis of biological material	1.	Analysis of proteins, peptides or amino acids by mass spectrometry is classified in G01N 33/6848 and G01N 33/6851 .
2458/10	• Oligonucleotides as tagging agents for labelling antibodies	2.	Analysis of nucleic acids by mass spectrometry is classified in C12Q 1/6872 , C12Q 2563/167 and C12Q 2565/627 .
2458/15	• Non-radioactive isotope labels, e.g. for detection by mass spectrometry	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
2458/20	• Labels for detection by gas chromatography, e.g. haloaryl systems	2600/00	Assays involving molecular imprinted polymers/ polymers created around a molecular template
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		
2470/00	Immunochemical assays or immunoassays characterised by the reaction format or reaction type		
2470/04	• Sandwich assay format		
2470/06	• • Second binding partner specifically binding complex of analyte with first binding partner		
2470/10	• Competitive assay format		
2470/12	• • Displacement or release-type competition		

- 2610/00** Assays involving self-assembled monolayers [SAMs]
- 2650/00** Assays involving polymers whose constituent monomers bore biological functional groups before polymerization, i.e. vinyl, acryl derivatives of amino acids, sugars

2800/00 Detection or diagnosis of diseases

NOTES

- 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).
- 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.
- For cancers, which subject matter is classified in [G01N 33/574](#) and subgroups, the present indexing scheme is not used.
- When indexing in the following scheme, the organ takes precedence, e.g. inflammation of the skin is indexed with dermatological disorders and not with immunology or allergic disorders, asthma with pulmonary disorders and not with immunology or allergic disorders. Exception is made for thrombosis which is indexed with haematological disorders.

- [2800/02](#) . Nutritional disorders
- [2800/04](#) . Endocrine or metabolic disorders
- [2800/042](#) . . Disorders of carbohydrate metabolism, e.g. diabetes, glucose metabolism
- [2800/044](#) . . Hyperlipemia or hypolipemia, e.g. dyslipidaemia, obesity
- [2800/046](#) . . Thyroid disorders
- [2800/048](#) . . Pituitary or hypothalamic - pituitary relationships, e.g. vasopressin or ADH related
- [2800/06](#) . Gastro-intestinal diseases
- [2800/062](#) . . Gastritis or peptic ulcer disease
- [2800/065](#) . . Bowel diseases, e.g. Crohn, ulcerative colitis, IBS
- [2800/067](#) . . Pancreatitis or colitis
- [2800/08](#) . Hepato-biliary disorders other than hepatitis
- [2800/085](#) . . Liver diseases, e.g. portal hypertension, fibrosis, cirrhosis, bilirubin
- [2800/10](#) . Musculoskeletal or connective tissue disorders
- [2800/101](#) . . Diffuse connective tissue disease, e.g. Sjögren, Wegener's granulomatosis
- [2800/102](#) . . . Arthritis; Rheumatoid arthritis, i.e. inflammation of peripheral joints
- [2800/104](#) . . . Lupus erythematosus [SLE]
- [2800/105](#) . . Osteoarthritis, e.g. cartilage alteration, hypertrophy of bone
- [2800/107](#) . . Crystal induced conditions; Gout
- [2800/108](#) . . Osteoporosis
- [2800/12](#) . Pulmonary diseases
- [2800/122](#) . . Chronic or obstructive airway disorders, e.g. asthma COPD
- [2800/125](#) . . Adult respiratory distress syndrome
- [2800/127](#) . . Bronchitis
- [2800/14](#) . Disorders of ear, nose or throat
- [2800/16](#) . Ophthalmology

- [2800/162](#) . . Conjunctival disorders, e.g. conjunctivitis
- [2800/164](#) . . Retinal disorders, e.g. retinopathy
- [2800/166](#) . . Cataract
- [2800/168](#) . . Glaucoma
- [2800/18](#) . Dental and oral disorders
- [2800/20](#) . Dermatological disorders
- [2800/202](#) . . Dermatitis
- [2800/205](#) . . Scaling palmar diseases, e.g. psoriasis, pityriasis
- [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
- [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, e.g. for selection of therapy based on assay results in personalised medicine; 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