

CPC COOPERATIVE PATENT CLASSIFICATION

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

NOTES

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

1/00	Sampling; Preparing specimens for investigation	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)}
2001/002	. {Devices for supplying or distributing samples to an analysing apparatus}		
2001/005	. . {Packages for mailing or similar transport of samples}	2001/1006	. . . {Dispersed solids}
2001/007	. . {Devices specially adapted for forensic samples, e.g. tamper-proofing, sample tracking}	2001/1012	. . . . {Suspensions}
1/02	. Devices for withdrawing samples (for medical or veterinary purposes A61 ; {sampling of foundation soil E02D 1/04 }; obtaining samples of soil or well fluids E21B 49/00 ; {collecting or conveying radioactive samples G01T 7/00 , e.g. G01T 7/02 , G01T 7/08 })	2001/1018	. . . . . {Gas suspensions; Fluidised beds}
		2001/1025	. . . . . {Liquid suspensions; Slurries; Mud; Sludge}
2001/021	. . {Correlating sampling sites with geographical information, e.g. GPS}	2001/1031	. . . . {Sampling from special places}
2001/022	. . {sampling for security purposes, e.g. contraband, warfare agents}	2001/1037	. . . . {from an enclosure (hazardous waste, radioactive)}
2001/024	. . . {passengers or luggage}	2001/1043	. . . . {from sewers}
2001/025	. . . {postal items}	2001/105	. . . . {from high-pressure reactors or lines}
2001/027	. . . {field kits / quick test kits}	2001/1056	. . . {Disposable (single-use) samplers}
2001/028	. . {Sampling from a surface, swabbing, vaporising}	2001/1062	. . . {Sampling under constant temperature, pressure, or the like}
1/04	. . in the solid state, e.g. by cutting	2001/1068	. . . . {Cooling sample below melting point}
2001/045	. . . {Laser ablation; Microwave vaporisation}	2001/1075	. . . . {Trapping evaporated liquids by cooling}
1/06	. . . providing a thin slice, e.g. microtome	2001/1081	. . . . {Storing samples under refrigeration}
2001/061	. . . . {Blade details}	2001/1087	. . . {Categories of sampling}
2001/063	. . . . . {with sawing action}	2001/1093	. . . . {Composite sampling; Cumulative sampling}
2001/065	. . . . {Drive details}	1/12	. . . Dippers; Dredgers
2001/066	. . . . . {electric}	1/125	. . . . {adapted for sampling molten metals}
2001/068	. . . . {Illumination means}	1/14	. . . Suction devices, e.g. pumps; Ejector devices
1/08	. . . involving an extracting tool, e.g. core bit	1/1409	. . . . {adapted for sampling molten metals}
2001/085	. . . . {Grabs}	2001/1418	. . . . {Depression, aspiration}
		2001/1427	. . . . . {Positive displacement, piston, peristaltic}
		2001/1436	. . . . . {Ejector}

2001/1445	. . . .	{Overpressure, pressurisation at sampling point}	2001/2261	. . . . .	{preventing condensation (heating lines)}
2001/1454	. . . . .	{Positive displacement, piston}	2001/2264	. . . . .	{with dilution}
2001/1463	. . . . .	{Injector; Air-lift}	2001/2267	. . . . .	{separating gas from liquid, e.g. bubbles}
2001/1472	. . . . .	{Devices not actuated by pressure difference}	2001/227	. . . . .	{separating gas from solid, e.g. filter}
2001/1481	. . . . .	{Archimedian screw; Auger}	1/2273	. . . .	{Atmospheric sampling}
2001/149	. . . . .	{Capillaries; Sponges}	2001/2276	. . . . .	{Personal monitors}
1/16	. . . .	with provision for intake at several levels (G01N 1/2035 G01N 1/12 , G01N 1/14 take precedence)	2001/2279	. . . . .	{high altitude, e.g. rockets, balloons}
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)	2001/2282	. . . .	{with cooling means}
2001/185	. . . . .	{Conveyor of containers successively filled}	2001/2285	. . . .	{Details of probe structures}
1/20	. . . .	for flowing or falling materials (G01N 1/2035 G01N 1/12 , G01N 1/14 take precedence)	2001/2288	. . . . .	{Filter arrangements}
2001/2007	. . . . .	{Flow conveyors}	2001/2291	. . . . .	{Movable probes, e.g. swivelling, swinging}
2001/2014	. . . . .	{Pneumatic conveyors}	1/2294	. . . .	{Sampling soil gases or the like}
2001/2021	. . . . .	{falling under gravity}	2001/2297	. . . .	{Timing devices}
2001/2028	. . . . .	{Belts}	1/24	. . . .	Suction devices (G01N 1/22 - G01N 1/2294 take precedence)
1/2035	. . . . .	{by deviating part of a fluid stream, e.g. by drawing-off or tapping}	2001/241	. . . . .	{Bellows}
1/2042	. . . . .	{using a piston actuated by the pressure of the liquid to be sampled}	2001/242	. . . . .	{Injectors or ejectors}
2001/205	. . . . .	{using a valve}	2001/244	. . . . .	{using critical flow orifices}
2001/2057	. . . . .	{Sample chamber in a valve/piston}	2001/245	. . . . .	{Fans}
2001/2064	. . . . .	{using a by-pass loop}	2001/247	. . . . .	{Syringes}
2001/2071	. . . . .	{Removable sample bottle}	2001/248	. . . . .	{Evacuated containers}
2001/2078	. . . . .	{Pre-evacuated bottle}	1/26	. . . .	with provision for intake from several spaces
2001/2085	. . . . .	{Non-pre-evacuated septum closed bottles}	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)
2001/2092	. . . . .	{Cross-cut sampling}	1/2806	. . . .	{Means for preparing replicas of specimens, e.g. for microscopical analysis}
1/22	. . . .	in the gaseous state {(specially adapted for biological material G01N 33/497 ; measuring breath flow A61B 5/087)}	1/2813	. . . .	{Producing thin layers of samples on a substrate, e.g. smearing, spinning-on (G01N 1/30 takes precedence)}
1/2202	. . . .	{involving separation of sample components during sampling}	2001/282	. . . .	{with mapping; Identification of areas; Spatial correlated pattern}
1/2205	. . . . .	{with filters}	2001/2826	. . . .	{Collecting by adsorption or absorption}
1/2208	. . . . .	{with impactors}	2001/2833	. . . .	{Collecting samples on a sticky, tacky, adhesive surface}
1/2211	. . . . .	{with cyclones}	2001/284	. . . . .	{using local activation of adhesive, i.e. Laser Capture Microdissection}
1/2214	. . . . .	{by sorption}	2001/2846	. . . .	{Cytocentrifuge method}
2001/2217	. . . . .	{using a liquid}	1/2853	. . . .	{Shadowing samples}
2001/222	. . . . .	{other features (not used)}	1/286	. . . .	{involving mechanical work, e.g. chopping, disintegrating, compacting, homogenising (microtomes G01N 1/06 ; pulverising in general B02C ; mixing in general B01F)}
2001/2223	. . . . .	{aerosol sampling devices}	2001/2866	. . . .	{Grinding or homogeneising}
1/2226	. . . .	{Sampling from a closed space, e.g. food package, head space}	2001/2873	. . . .	{Cutting or cleaving}
2001/2229	. . . . .	{Headspace sampling, i.e. vapour over liquid}	2001/288	. . . . .	{Filter punches}
2001/2232	. . . . .	{using a membrane, i.e. pervaporation}	2001/2886	. . . . .	{Laser cutting, e.g. tissue catapult}
2001/2235	. . . . .	{over a melt, e.g. furnace}	2001/2893	. . . .	{Preparing calibration standards}
2001/2238	. . . . .	{the gas being compressed or pressurized}	1/30	. . . .	Staining; Impregnating {Fixation; Dehydration; Multistep processes for preparing samples of tissue, cell or nucleic acid material and the like for analysis}
2001/2241	. . . . .	{purpose-built sampling enclosure for emissions}	2001/302	. . . .	{Stain compositions}
2001/2244	. . . .	{Exhaled gas, e.g. alcohol detecting}	2001/305	. . . .	{Fixative compositions}
1/2247	. . . .	{Sampling from a flowing stream of gas}	2001/307	. . . . .	{non-toxic, no Hg, no formaldehyde}
2001/225	. . . . .	{isokinetic, same flow rate for sample and bulk gas}	1/31	. . . .	Apparatus therefor
1/2252	. . . . .	{in a vehicle exhaust}	1/312	. . . . .	{for samples mounted on planar substrates}
2001/2255	. . . . .	{with dilution of the sample}	2001/315	. . . . .	{Basket-type carriers for tissues}
1/2258	. . . . .	{in a stack or chimney}	2001/317	. . . . .	{spraying liquids onto surfaces}

1/32	. . Polishing; Etching	3/062	. . . {with mechanical indicating or recording means}
1/34	. . Purifying; Cleaning {processes or apparatus for extracting or separating nucleic acids from biological samples C12N 15/1003}	3/064	. . . {with hydraulic indicating or recording means}
1/36	. . Embedding or analogous mounting of samples	3/066	. . . {with electrical indicating or recording means}
2001/362	. . . {using continuous plastic film to mount sample}	3/068	. . . {with optical indicating or recording means}
2001/364	. . . {using resins, epoxy}	3/08	. by applying steady tensile or compressive forces (G01N 3/28 takes precedence)
2001/366	. . . {Moulds; Demoulding}	3/10	. . generated by pneumatic or hydraulic pressure (G01N 3/18 takes precedence)
2001/368	. . . {Mounting multiple samples in one block, e.g. TMA (Tissue Micro-arrays)}	3/12	. . . Pressure testing (testing fluid-tightness G01M 3/00)
1/38	. . Diluting, dispersing or mixing samples	3/14	. . generated by dead weight, e.g. pendulum; generated by springs tension (G01N 3/18 takes precedence)
2001/381	. . . {by membrane diffusion; Permeation tubes}	3/16	. . applied through gearing (G01N 3/18 takes precedence)
2001/382	. . . {using pistons of different sections}	3/165	. . . {generated by rotation, i.e. centrifugal force (for testing structures or apparatus G01M 99/004)}
2001/383	. . . {collecting and diluting in a flow of liquid}	3/18	. . Performing test at high or low temperatures
2001/385	. . . {diluting by adsorbing a fraction of the sample}	3/20	. by applying steady bending forces (G01N 3/26, G01N 3/28 take precedence)
2001/386	. . . {Other diluting or mixing processes}	3/22	. by applying steady torsional forces (G01N 3/26, G01N 3/28 take precedence)
2001/387	. . . . {mixing by blowing a gas, bubbling}	3/24	. by applying steady shearing forces (G01N 3/26, G01N 3/28 take precedence)
2001/388	. . . . {mixing the sample with a tracer}	3/26	. Investigating twisting or coiling properties
1/40	. . Concentrating samples	3/28	. Investigating ductility, e.g. suitability of sheet metal for deep-drawing or spinning
1/4005	. . . {by transferring a selected component through a membrane}	3/30	. by applying a single impulsive force, e.g. by falling weight
2001/4011	. . . . {being a ion-exchange membrane}	3/303	. . generated only by free-falling weight
2001/4016	. . . . {being a selective membrane, e.g. dialysis or osmosis}	3/307	. . generated by a compressed or tensile-stressed spring; generated by pneumatic or hydraulic means
1/4022	. . . {by thermal techniques; Phase changes}	3/31	. . generated by a rotating fly-wheel
2001/4027	. . . . {evaporation leaving a concentrated sample}	3/313	. . generated by explosives
2001/4033	. . . . {sample concentrated on a cold spot, e.g. condensation or distillation}	3/317	. . generated by electromagnetic means
2001/4038	. . . {electric methods, e.g. electromigration, electrophoresis, ionisation}	3/32	. by applying repeated or pulsating forces (generation of such forces in general, see the relevant classes or subclasses, e.g. B06, G10)
1/4044	. . . {by chemical techniques; Digestion; Chemical decomposition}	3/34	. . generated by mechanical means, e.g. hammer blows
1/405	. . . {by adsorption or absorption}	3/36	. . generated by pneumatic or hydraulic means
1/4055	. . . {by solubility techniques}	3/38	. . generated by electromagnetic means
2001/4061	. . . . {Solvent extraction}	3/40	. Investigating hardness or rebound hardness
2001/4066	. . . . {using difference of solubility between liquid and gas, e.g. bubbling, scrubbing or sparging}	3/405	. . {by determining the vibration frequency of a sensing element in contact with the specimen}
2001/4072	. . . . {membraneless transfer of a component between two parallel laminar flows of fluid}	3/42	. . by performing impressions under a steady load by indentors, e.g. sphere, pyramid (G01N 3/54 takes precedence)
1/4077	. . . {by other techniques involving separation of suspended solids}	3/44	. . . the indentors being put under a minor load and a subsequent major load, i.e. Rockwell system
2001/4083	. . . . {sedimentation}	3/46	. . . the indentors performing a scratching movement
2001/4088	. . . . {filtration}	3/48	. . by performing impressions under impulsive load by indentors, e.g. falling ball (G01N 3/54 takes precedence)
2001/4094	. . . . {using ultrasound}	3/50	. . by measuring rolling friction, e.g. by rocking pendulum (G01N 3/54 takes precedence)
1/42	. . Low-temperature sample treatment, e.g. cryofixation	3/52	. . by measuring extent of rebound of a striking body (G01N 3/54 takes precedence)
1/44	. . Sample treatment involving radiation, e.g. heat	3/54	. . Performing tests at high or low temperatures
3/00	Investigating strength properties of solid materials by application of mechanical stress (strain gauges G01B; measuring stress in general G01L)	3/56	. Investigating resistance to wear or abrasion
	NOTE		
	This group covers the stressing of materials not only below but also beyond the elastic limit, e.g. until breaking occurs.		
3/02	. Details		
3/04	. . Chucks		
3/06	. . Special adaptations of indicating or recording means (indicating or recording means for measuring in general G01D)		

3/562	. . {using radioactive tracers}	2009/024	. . . {the volume being determined directly, e.g. by size of container}
3/565	. . {of granular or particulate material}	2009/026	. . . {the volume being determined by amount of fluid displaced}
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)}	2009/028	. . . . {a gas being used as displacement fluid}
3/58	. Investigating machinability by cutting tools; Investigating the cutting ability of tools	9/04	. . of fluids
3/60	. Investigating resistance of materials, e.g. refractory materials, to rapid heat changes {(thermal testing of structures or apparatus G01M 99/002)}	9/06	. . . with continuous circulation through a pivotally supported member
3/62	. Manufacturing, calibrating, or repairing devices used in investigations covered by the preceding subgroups	9/08	. by measuring buoyant force of solid materials by weighing both in air and in a liquid
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})	9/10	. by observing bodies wholly or partially immersed in fluid materials
5/02	. by absorbing or adsorbing components of a material and determining change of weight of the adsorbent, e.g. determining moisture content {(absorption bulbs B01D 53/00)}	9/12	. . by observing the depth of immersion of the bodies, e.g. hydrometers
5/025	. . {for determining moisture content}	9/14	. . . the body being built into a container
5/04	. by removing a component, e.g. by evaporation, and weighing the remainder	9/16	. . . the body being pivoted
5/045	. . {for determining moisture content}	9/18	. . . Special adaptations for indicating, recording, or control
7/00	Analysing materials by measuring the pressure or volume of a gas or vapour	9/20	. . by balancing the weight of the bodies
7/02	. by absorption, adsorption, or combustion of components and measurement of the change in pressure or volume of the remainder {(absorption bulbs B01D 53/00)}	9/22	. . . with continuous circulation of the fluid
7/04	. . by absorption or adsorption alone	9/24	. by observing the transmission of wave or particle radiation through the material
7/06	. . by combustion alone	9/26	. by measuring pressure differences
7/08	. . by combustion followed by absorption or adsorption of the combustion products	2009/263	. . {using vertically-movable pressure transducer}
7/10	. by allowing diffusion of components through a porous wall and measuring a pressure or volume difference	9/266	. . {for determining gas density}
7/12	. . the diffusion being followed by combustion or catalytic oxidation	9/28	. . by measuring the blowing pressure of gas bubbles escaping from nozzles at different depths in a liquid
7/14	. by allowing the material to emit a gas or vapour, e.g. water vapour, and measuring a pressure or volume difference {(determining urea G01N 33/48742)}	9/30	. by using centrifugal effects
7/16	. . by heating the material	9/32	. by using flow properties of fluids, e.g. flow through tubes or apertures
7/18	. . by allowing the material to react	9/34	. . by using elements moving through the fluid, e.g. vane
7/20	. . . the reaction being fermentation	9/36	. Analysing materials by measuring the density or specific gravity, e.g. determining quantity of moisture (methods of measurement in general G01N 9/02 - G01N 9/32)
7/22	. . . . of dough	11/00	Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties
9/00	Investigating density or specific gravity of materials; Analysing materials by determining density or specific gravity (weighing apparatus G01G)	2011/0006	. {Calibrating, controlling or cleaning viscometers}
9/002	. {using variation of the resonant frequency of an element vibrating in contact with the material submitted to analysis (G01N 9/34 takes precedence)}	2011/0013	. . {Temperature compensation}
2009/004	. . {comparing frequencies of two elements}	2011/002	. . {Controlling sample temperature; Thermal cycling during measurement}
2009/006	. . {vibrating tube, tuning fork}	2011/0026	. {Investigating specific flow properties of non-Newtonian fluids}
2009/008	. . {Schlatter vibrating vane type}	2011/0033	. . {Yield stress; Residual stress at zero shear rate}
9/02	. by measuring weight of a known volume	2011/004	. . {Stress relaxation time}
2009/022	. . {of solids}	2011/0046	. {In situ measurement during mixing process}
		2011/0053	. . {using ergometry; measuring power consumption}
		2011/006	. {Determining flow properties indirectly by measuring other parameters of the system}
		2011/0066	. . {electrical properties}
		2011/0073	. . {acoustic properties}
		2011/008	. . {optical properties}
		2011/0086	. . {magnetic properties}
		2011/0093	. . {thermal properties}
		11/02	. by measuring flow of the material
		11/04	. . through a restricted passage, e.g. tube, aperture
		11/06	. . . by timing the outflow of a known quantity
		11/08	. . . by measuring pressure required to produce a known flow

- 11/10 . . by moving a body within the material
- 11/105 . . {by detecting the balance position of a float moving in a duct conveying the fluid under test}
- 11/12 . . by measuring rising or falling speed of the body; by measuring penetration of wedged gauges ([G01N 11/16 takes precedence](#))
- 11/14 . . by using rotary bodies, e.g. vane ([G01N 11/16 takes precedence](#))
- 11/142 . . . {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
- 2011/145 {both members rotating}
- 2011/147 . . . {Magnetic coupling}
- 11/16 . . by measuring damping effect upon oscillatory body
- 11/162 . . . {Oscillations being torsional, e.g. produced by rotating bodies}
- 11/165 {Sample held between two members substantially perpendicular to axis of rotation, e.g. parallel plate viscometer}
- 11/167 {Sample holder oscillates, e.g. rotating crucible}
- 13/00 Investigating surface or boundary effects, e.g. wetting power; Investigating diffusion effects; Analysing materials by determining surface, boundary, or diffusion effects (scanning-probe techniques or apparatus [G01Q](#))**
- 2013/003 . . {Diffusion; diffusivity between liquids}
- 2013/006 . . {Dissolution of tablets or the like}
- 13/02 . . Investigating surface tension of liquids
- 2013/0208 . . . {by measuring contact angle}
- 2013/0216 . . . {by measuring skin friction or shear force}
- 2013/0225 . . . {of liquid metals or solder}
- 2013/0233 . . . {Langmuir troughs; thin-film balances}
- 2013/0241 . . . {bubble, pendant drop, sessile drop methods}
- 2013/025 {Measuring foam stability}
- 2013/0258 {Oscillating drop methods}
- 2013/0266 {Bubble methods}
- 2013/0275 . . . {involving surface-active agents}
- 2013/0283 . . . {methods of calculating surface tension}
- 2013/0291 . . . {Wilhelmy plate}
- 13/04 . . Investigating osmotic effects
- 15/00 Investigating characteristics of particles; Investigating permeability, pore-volume, or surface-area of porous materials (identification of micro-organisms [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 nano particles}
- 2015/0042 . . {Investigating dispersion of solids}
- 2015/0046 . . . {in gas, e.g. smoke}
- 2015/0049 {of filaments in gas}
- 2015/0053 . . . {in liquids, e.g. trouble}
- 2015/0057 {of filaments in liquids}
- 2015/0061 . . . {in solids, e.g. petrography}
- 2015/0065 . . . {biological, e.g. blood}
- 2015/0069 . . . {with lysing, e.g. of erythrocyts}
- 2015/0073 . . . {Red blood cells}
- 2015/0076 {Reticulocytes}
- 2015/008 . . . {White cells}
- 2015/0084 . . . {Platelets}
- 2015/0088 . . . {Biological contaminants; Fouling}
- 2015/0092 . . {Monitoring flocculation or agglomeration}
- 2015/0096 . . {Investigating consistence of powders, dustability, dustiness}
- 15/02 . . Investigating particle size or size distribution ([G01N 15/04](#), [G01N 15/10 take precedence](#); by measuring osmotic pressure [G01N 7/10](#); by filtering [B01D](#); by sifting [B07B](#))
- 15/0205 . . . {by optical means, e.g. by light scattering, diffraction, holography or imaging}
- 15/0211 {Investigating a scatter or diffraction pattern}
- 2015/0216 {from fluctuations of diffraction pattern}
- 2015/0222 {from dynamic light scattering, e.g. photon correlation spectroscopy}
- 15/0227 {using imaging, e.g. a projected image of suspension; using holography}
- 2015/0233 {using holography}
- 2015/0238 {Single particle scatter}
- 2015/0244 {with cutting-out molecular scatter}
- 2015/025 {Methods for single or grouped particles}
- 15/0255 {with mechanical, e.g. inertial, classification, and investigation of sorted collections ([with centrifuges \[G01N 15/042\]\(#\)](#))}
- 2015/0261 {using impactors}
- 15/0266 . . . {with electrical classification}
- 15/0272 . . . {with screening; with classification by filtering ([B01D takes precedence](#))}
- 2015/0277 . . . {Average size only}
- 2015/0283 . . . {using control of suspension concentration}
- 2015/0288 . . . {Sorting the particles}
- 2015/0294 . . . {Particle shape}
- 2015/03 . . {Electro-optical investigation of a plurality of particles, the analyser being characterised by the optical arrangement}
- 2015/035 . . . {the optical arrangement forming an integrated apparatus with the sample container}
- 15/04 . . Investigating sedimentation of particle suspensions
- 15/042 . . . {by centrifuging and investigating centrifugates ([centrifuges per se \[B04B\]\(#\)](#))}
- 2015/045 {by optical analysis}
- 2015/047 {by static multidetectors}
- 15/05 . . . in blood
- 2015/055 {for hematocrite determination}
- 15/06 . . Investigating concentration of particle suspensions ([G01N 15/04](#), [G01N 15/10 take precedence](#); by weighing [G01N 5/00](#))

NOTE

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

- Investigating or analysing materials;
- by the use of optical means: [G01N 21/00](#), e.g. [G01N 21/47](#), [G01N 21/90](#);

G01N

G01N 15/06

(continued)

- 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](#)
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- 15/0606 . . {by collecting particles on a support}
 - 15/0612 . . . {Optical scan of the deposits ([G01N 15/0625](#) takes precedence)}
 - 15/0618 . . . {of the filter type ([G01N 15/0643](#) takes precedence)}
 - 15/0625 {Optical scan of the deposits}
 - 15/0631 {Separation of liquids, e.g. by absorption, wicking}
 - 15/0637 . . . {Moving support}
 - 15/0643 {of the filter type}
 - 15/065 . . {using condensation nuclei counters}
 - 15/0656 . . {using electric, e.g. electrostatic methods or magnetic methods ([by investigating individual particles G01N 15/1031](#), [G01N 15/12](#))}
 - 2015/0662 . . {Comparing before/after passage through filter}
 - 2015/0668 . . {Comparing properties of sample and carrier fluid, e.g. oil in water}
 - 2015/0675 . . {Comparing suspension before/after dilution}
 - 2015/0681 . . {Purposely modifying particles, e.g. humidifying for growing}
 - 2015/0687 . . {in solutions, e.g. non volatile residue}
 - 2015/0693 . . {by optical means, e.g. by integrated nephelometry}
 - 15/08 . . Investigating permeability, pore-volume, or surface area of porous materials
 - 15/0806 . . {Details, e.g. sample holders, mounting samples for testing}
 - 2015/0813 . . {Measuring intrusion, e.g. of mercury}
 - 15/082 . . {Investigating permeability by forcing a fluid through a sample}
 - 15/0826 . . . {and measuring fluid flow rate, i.e. permeation rate or pressure change}
 - 2015/0833 . . {Pore surface area}
 - 2015/084 . . {Testing filters}
 - 2015/0846 . . {by use of radiation, e.g. transmitted or reflected light}
 - 2015/0853 . . {by electrical capacitance measurement}
 - 2015/086 . . {of films, membranes or pellicules}
 - 2015/0866 . . {Sorption}
 - 2015/0873 . . . {Dynamic sorption, e.g. with flow control means}
 - 15/088 . . {Investigating volume, surface area, size or distribution of pores; Porosimetry}
 - 15/0886 . . . {Mercury porosimetry}
 - 15/0893 . . . {by measuring weight or volume of sorbed fluid, e.g. B.E.T. method}
 - 15/10 . . Investigating individual particles
 - 2015/1006 . . {for cytology}
 - 15/1012 . . {Calibrating particle analysers; References therefor}
 - 2015/1018 . . . {Constitution of reference particles}
 - 2015/1025 . . . {Particle flow simulating, e.g. liquid crystal cell}
 - 15/1031 . . {by measuring electrical or magnetic effects thereof, e.g. onconductivity or capacity ([using nano-scale size effects, other than for sizing or counting, by translocation through nano-pores G01N 33/48721](#); involving the use of Coulter counters [G01N 15/12](#))}
 - 2015/1037 . . {Associating coulter-counter and optical flow cytometer [OFC]}
 - 2015/1043 . . {Measuring mass of individual particles}
 - 2015/105 . . {Other than optical measurement of deformation of individual particles ([optical measurement G01N 2015/1495](#))}
 - 15/1056 . . {Micro-structural devices for other than electro-optical measurement ([for electro-optical measurement G01N 15/1484](#))}
 - 2015/1062 . . {counting the particles by other than electro-optical means ([by electro-optical means G01N 2015/1486](#))}
 - 2015/1068 . . {Recognizing failure of the analyser, e.g. bubbles; Quality control for particle analysers}
 - 2015/1075 . . {Determining speed or velocity of a particle}
 - 2015/1081 . . {Sorting the particles}
 - 2015/1087 . . {Particle size}
 - 2015/1093 . . {Particle shape}
 - 15/12 . . Coulter-counters
 - 15/1209 . . . {Details}
 - 15/1218 {concerning the aperture}
 - 15/1227 {Circuits}
 - 2015/1236 {Flow forming}
 - 15/1245 . . . {Devices using more than one aperture}
 - 2015/1254 . . . {Electrodes}
 - 2015/1263 {Scanning electrodes}
 - 2015/1272 . . . {Cleaning}
 - 2015/1281 . . . {Detecting blocking debris}
 - 2015/129 . . . {measuring the ratio of AC/DC impedances}
 - 15/14 . . Electro-optical investigation, e.g. flow cytometers
 - 2015/1402 . . . {Data analysis by thresholding or gating operations performed on the acquired signals or stored data}
 - 15/1404 . . . {Fluid conditioning in flow cytometers, e.g. flow cells; Supply; Control of flow}
 - 2015/1406 {Control of droplet point}
 - 2015/1409 {Control of supply of sheaths fluid, e.g. sample injection control}
 - 2015/1411 {Features of sheaths fluids}
 - 2015/1413 {Hydrodynamic focussing}
 - 2015/1415 {Control of particle position}
 - 2015/1418 {Eliminating clogging of debris}
 - 2015/142 {Acoustic or ultrasonic focussing}
 - 2015/1422 {Electrical focussing}
 - 15/1425 . . . {using an analyser being characterised by its control arrangement}
 - 15/1427 {with the synchronisation of components, a time gate for operation of components, or suppression of particle coincidences}
 - 15/1429 . . . {using an analyser being characterised by its signal processing}
 - 15/1431 {the electronics being integrated with the analyser, e.g. hand-held devices for on-site investigation}
 - 15/1434 . . . {using an analyser being characterised by its optical arrangement}

- 15/1436 {the optical arrangement forming an integrated apparatus with the sample container, e.g. a flow cell}
- 2015/1438 {Using two lasers in succession}
- 2015/144 {Imaging characterised by its optical setup}
- 2015/1443 {Auxiliary imaging}
- 2015/1445 {Three-dimensional imaging, imaging in different image planes, e.g. under different angles or at different depths, e.g. by a relative motion of sample and detector, for instance by tomography}
- 2015/1447 {Spatial selection}
- 2015/145 {by pattern of light, e.g. fringe pattern}
- 2015/1452 {Adjustment of focus; Alignment}
- 2015/1454 {using phase shift or interference, e.g. for improving contrast}
- 15/1456 . . . {without spatial resolution of the texture or inner structure of the particle, e.g. processing of pulse signals}
- 15/1459 {the analysis being performed on a sample stream}
- 2015/1461 {Coincidence detecting; Circuits therefor}
- 15/1463 {using image analysis for extracting features of the particle}

NOTE

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

- counting objects disposed at random with size distinction [G06M 11/04](#)
- extraction of features from image for pattern recognition [G06K 9/46](#)
- specific image analysis method for the recognition of microscopic objects [G06K 9/00127](#)
- image enhancement in general [G06T 5/00](#)
- image analysis in general [G06T 7/00](#)

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

NOTE

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

- counting objects disposed at random with size distinction [G06M 11/04](#)
- extraction of features from image for pattern recognition [G06K 9/46](#)
- specific image analysis method for the recognition of microscopic objects [G06K 9/00127](#)
- image enhancement [G06T 5/00](#)
- image analysis [G06T 7/00](#)

- 15/147 {the analysis being performed on a sample stream}
- 2015/1472 {with colour}

- 15/1475 {using image analysis for extracting features of the particle}
- 2015/1477 . . . {Multiparameters}
- 2015/1479 {Using diffuse illumination or excitation}
- 2015/1481 . . . {Optical analysis of particle in droplet}
- 15/1484 . . . {micro-structural devices}
- 2015/1486 . . . {Counting the particles}
- 2015/1488 . . . {Methods for deciding}
- 2015/149 . . . {Sorting the particles}
- 2015/1493 . . . {Particle size}
- 2015/1495 {Deformation of particles}
- 2015/1497 . . . {Particle shape}

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

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

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

- 19/02 . Measuring coefficient of friction between materials {[\(testing of tyres G01M 17/02; determinations of friction coefficient used in vehicle braking or traction control systems B60T 8/172\)](#)}
- 19/04 . Measuring adhesive force between materials, e.g. of sealing tape, of coating
- 19/06 . Investigating by removing material, e.g. spark-testing
- 19/08 . Detecting presence of flaws or irregularities ([measuring roughness or irregularity of surfaces G01B 5/28](#))
- 19/10 . Measuring moisture content, e.g. by measuring change in length of hygroscopic filament; Hygrometers

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

This group does not cover the investigation of spectral properties of light *per se*, or measurements of the properties of materials where spectral properties of light are sensed and primary emphasis is placed on creating, detecting or analysing the spectrum providing that the properties of the materials to be investigated are of minor importance (see also Note (4) after the title of class [G01](#)). 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}	2021/058	. . . . . {Flat flow cell}
2021/0137	. . . . . {with PC or the like}	21/07	. . . Centrifugal type cuvettes (G01N 21/09 takes precedence; centrifuges per se B04B)
2021/0143	. . . . . {with internal and external computer}	21/09	. . . adapted to resist hostile environments or corrosive or abrasive materials
2021/015	. . . {Apparatus with interchangeable optical heads or interchangeable block of optics and detector}	21/11	. . Filling or emptying of cuvettes
2021/0156	. . . . . {with optics only in separate head, e.g. connection by optical fibres}	2021/115	. . . {Washing; Purging}
2021/0162	. . {using microprocessors for control of a sequence of operations, e.g. test, powering, switching, processing}	21/13	. . Moving of cuvettes or solid samples to or from the investigating station (handling materials for automatic analysis G01N 35/00)
2021/0168	. . . {for the measurement cycle}	2021/135	. . . {Sample holder displaceable (in automatised apparatus G01N 35/02)}
2021/0175	. . . {for selecting operating means}	21/15	. . Preventing contamination of the components of the optical system or obstruction of the light path
2021/0181	. . {Memory or computer-assisted visual determination}	2021/151	. . . {Gas blown}
2021/0187	. . {Mechanical sequence of operations}	2021/152	. . . {Scraping; Brushing; Moving band}
2021/0193	. . {the sample being taken from a stream or flow to the measurement cell}	2021/154	. . . {Ultrasonic cleaning}
21/03	. . Cuvette constructions	2021/155	. . . {Monitoring cleanness of window, lens, or other parts}
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)}	2021/157	. . . . . {Monitoring by optical means}
2021/0307	. . . . . {Insert part in cell}	2021/158	. . . {Eliminating condensation}
21/031	. . . {Multipass arrangements}	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)
2021/0314	. . . . . {Double pass, autocollimated path}	21/1702	. . {with opto-acoustic detection, e.g. for gases or analysing solids}
21/0317	. . . {High pressure cuvettes; (G01N 21/0332 - G01N 21/15 take precedence)}	2021/1704	. . . {in gases}
2021/0321	. . . {One time use cells, e.g. integrally moulded}	2021/1706	. . . {in solids}
2021/0325	. . . {Cells for testing reactions, e.g. containing reagents}	2021/1708	. . . {with piezotransducers (probes for investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves G01N 29/24)}
2021/0328	. . . . . {Arrangement of two or more cells having different functions for the measurement of reactions}	21/171	. . {with calorimetric detection, e.g. with thermal lens detection}
21/0332	. . . {with temperature control (control of temperature G05D 23/00 ; cryostats F17C 3/08)}	2021/1712	. . . {Thermal lens, mirage effect}
2021/0335	. . . . . {Refrigeration of cells; Cold stages}	2021/1714	. . . {Photothermal radiometry with measurement of emission}
2021/0339	. . . {Holders for solids, powders}	21/1717	. . {with a modulation of one or more physical properties of the sample during the optical investigation, e.g. electro-reflectance}
2021/0342	. . . {Solid sample being immersed, e.g. equiindex fluid}	2021/1719	. . . {Carrier modulation in semiconductors}
2021/0346	. . . {Capillary cells; Microcells}	2021/1721	. . . {Electromodulation}
2021/035	. . . . . {Supports for sample drops}	2021/1723	. . . {Fluid modulation}
2021/0353	. . . . . {Conveyor of successive sample drops}	2021/1725	. . . {Modulation of properties by light, e.g. photorefectance}
2021/0357	. . . {Sets of cuvettes}	2021/1727	. . . {Magnetomodulation}
2021/036	. . . {transformable, modifiable}	2021/1729	. . . {Piezomodulation}
2021/0364	. . . {flexible, compressible}	2021/1731	. . . {Temperature modulation}
2021/0367	. . . {Supports of cells, e.g. pivotable}	2021/1734	. . {Sequential different kinds of measurements; Combining two or more methods}
2021/0371	. . . . . {Supports combined with sample intake}	2021/1736	. . . {with two or more light sources}
2021/0375	. . . . . {Slidable cells}	2021/1738	. . {Optionally different kinds of measurements; Method being valid for different kinds of measurement}
2021/0378	. . . {Shapes}	2021/174	. . . {either absorption-reflection or emission-fluorescence}
2021/0382	. . . . . {Frustoconical, tapered cell}	2021/1742	. . . {either absorption or reflection}
2021/0385	. . . {Diffusing membrane; Semipermeable membrane}	2021/1744	. . . {either absorption or scatter}
2021/0389	. . . {Windows}	2021/1746	. . {Method using tracers}
2021/0392	. . . . . {Nonplanar windows}	2021/1748	. . {Comparative step being essential in the method}
2021/0396	. . . . . {Oblique incidence}		
21/05	. . . Flow-through cuvettes (G01N 21/09 takes precedence; handling fluid samples G01N 1/10)		
2021/052	. . . . . {Tubular type; cavity type; multireflective}		
2021/054	. . . . . {Bubble trap; Debubbling}		
2021/056	. . . . . {Laminated construction}		

- 2021/1751 . . . {Constructive features therefore, e.g. using two measurement cells}
- 2021/1753 . . . {and using two light sources}
- 2021/1755 . . . {and using two apparatus or two probes}
- 2021/1757 . . {Time modulation of light being essential to the method of light modification, e.g. using single detector (circuits for photometry with modulation, using one detector [G01J 1/44](#))}
- 2021/1759 . . . {Jittering, dithering, optical path modulation}
- 2021/1761 . . {A physical transformation being implied in the method, e.g. a phase change}
- 2021/1763 . . . {Gas to liquid phase change}
- 2021/1765 . . {Method using an image detector and processing of image signal}
- 2021/1768 . . . {using photographic film}
- 2021/177 . . . {Detector of the video camera type}
- 2021/1772 {Array detector}
- 2021/1774 {Line array detector}
- 2021/1776 {Colour camera}
- 2021/1778 {IIT [intensified image tube]}
- 2021/178 . . {Methods for obtaining spatial resolution of the property being measured}
- 2021/1782 . . . {In-depth resolution}
- 2021/1785 . . . {Three dimensional}
- 2021/1787 {Tomographic, i.e. computerised reconstruction from projective measurements}
- 2021/1789 . . {Time resolved}
- 2021/1791 . . . {stroboscopic; pulse gated; time range gated}
- 2021/1793 . . {Remote sensing}
- 2021/1795 . . . {Atmospheric mapping of gases}
- 2021/1797 . . . {in landscape, e.g. crops}
- 21/19 . . Dichroism
- 21/21 . . Polarisation-affecting properties ([G01N 21/19 takes precedence](#))
- 21/211 . . . {Ellipsometry (optical thickness measurement [G01B 11/06](#))}
- 2021/212 {Arrangement with total internal reflection}
- 2021/213 {Spectrometric ellipsometry}
- 2021/214 {Variance incidence arrangement}
- 2021/215 {Brewster incidence arrangement}
- 2021/216 . . . {using circular polarised light}
- 2021/217 . . . {Measuring depolarisation or comparing polarised and depolarised parts of light}
- 2021/218 . . . {Measuring properties of electrooptical or magneto-optical media}
- 21/23 . . . Bi-refringence
- 21/25 . . Colour; Spectral properties, i.e. comparison of effect of material on the light at two or more different wavelengths or wavelength bands
- 21/251 . . . {Colorimeters; Construction thereof}
- 21/253 {for batch operation, i.e. multisample apparatus (analytical automats [G01N 35/00](#))}
- 21/255 . . . {Details, e.g. use of specially adapted sources, lighting or optical systems}
- 21/256 . . . {Arrangements using two alternating lights and one detector}
- 2021/258 . . . {Surface plasmon spectroscopy, e.g. micro- or nano- particles in suspension}
- 21/27 . . . using photo-electric detection ([G01N 21/31 takes precedence](#)) {circuits for computing concentration (logarithmic circuits [G06G 7/24](#); photometric circuits in general [G01J](#))}
- 21/272 {for following a reaction, e.g. for determining photometrically a reaction rate (photometric kinetic analysis)}
- 21/274 {Calibration, base line adjustment, drift correction}
- 21/276 {with alternation of sample and standard in optical path}
- 21/278 {Constitution of standards}
- 21/29 . . . using visual detection ([G01N 21/31 takes precedence](#))
- 21/293 {with colour charts, graduated scales or turrets}
- 2021/296 {Visually measuring scintillation effect}
- 21/31 . . . Investigating relative effect of material at wavelengths characteristic of specific elements or molecules, e.g. atomic absorption spectrometry ([G01N 21/72 takes precedence](#))
- 21/3103 {Atomic absorption analysis}
- 2021/3107 {Cold vapor, e.g. determination of Hg}
- 2021/3111 {using Zeeman split}
- 2021/3114 {Multi-element AAS arrangements}
- 2021/3118 {Commutating sources, e.g. line source/ broad source, chopping for comparison of broad/narrow regimes}
- 2021/3122 {using a broad source with a monochromator}
- 2021/3125 {Measuring the absorption by excited molecules}
- 2021/3129 {Determining multicomponents by multiwavelength light}
- 2021/3133 {with selection of wavelengths before the sample}
- 2021/3137 {with selection of wavelengths after the sample}
- 21/314 {with comparison of measurements at specific and non-specific wavelengths (dual wavelength spectrometry [G01J 3/427](#))}
- 2021/3144 {for oxymetry}
- 2021/3148 {using three or more wavelengths}
- 21/3151 {using two sources of radiation of different wavelengths ([G01N 21/33](#) - [G01N 21/39 take precedence](#))}
- 2021/3155 {Measuring in two spectral ranges, e.g. UV and visible}
- 2021/3159 {Special features of multiplexing circuits}
- 2021/3162 {with offset adjustment between filters}
- 2021/3166 {using separate detectors and filters}
- 2021/317 {Special constructive features}
- 2021/3174 {Filter wheel}
- 2021/3177 {Use of spatially separated filters in simultaneous way}
- 2021/3181 {using LEDs}
- 2021/3185 {typically monochromatic or band-limited}
- 2021/3188 {band-limited}
- 2021/3192 {Absorption edge variation is measured}
- 2021/3196 {Correlating located peaks in spectrum with reference data, e.g. fingerprint data}
- 21/33 using ultra-violet light ([G01N 21/39 takes precedence](#))
- 2021/335 {Vacuum UV}
- 21/35 using infra-red light ([G01N 21/39 takes precedence](#))
- 21/3504 for analysing gases, e.g. multi-gas analysis

2021/3509	. . . . .	{Correlation method, e.g. one beam alternating in correlator/sample field}	2021/396	. . . . .	{Type of laser source}
2021/3513	. . . . .	{Open path with an instrumental source}	2021/397	. . . . .	{Dye laser}
21/3518	. . . . .	Devices using gas filter correlation techniques; Devices using gas pressure modulation techniques	2021/398	. . . . .	{CO ₂ laser}
NOTE			2021/399	. . . . .	{Diode laser}
This group also <u>covers</u> devices without instrumental sources, e.g. radiometric-type devices using ambient infra-red light.			21/41	. .	Refractivity; Phase-affecting properties, e.g. optical path length (G01N 21/21 takes precedence)
2021/3522	. . . . .	{balancing by two filters on two detectors}	2021/4106	. . .	{Atmospheric distortion; Turbulence}
2021/3527	. . . . .	{and using one filter cell as attenuator}	2021/4113	. . . . .	{Atmospheric dispersion}
2021/3531	. . . . .	{without instrumental source, i.e. radiometric}	21/412	. . .	{Index profiling of optical fibres}
2021/3536	. . . . .	{using modulation of pressure or density}	2021/4126	. . .	{Index of thin films}
2021/354	. . . . .	{Hygrometry of gases}	21/4133	. . .	{Refractometers, e.g. differential}
2021/3545	. . . . .	{Disposition for compensating effect of interfering gases}	2021/414	. . . . .	{Correcting temperature effect in refractometers}
2021/355	. . . . .	{by using a third optical path, e.g. interference cuvette}	2021/4146	. . . . .	{Differential cell arrangements}
21/3554	. . . . .	for determining moisture content	2021/4153	. . . . .	{Measuring the deflection of light in refractometers}
21/3559	. . . . .	in sheets, e.g. in paper	2021/416	. . .	{Visualising flow by index measurement}
WARNING			2021/4166	. . .	{Methods effecting a waveguide mode enhancement through the property being measured}
Group G01N 21/3559 is incomplete pending reclassification of documents from group G01N 21/3554 .			2021/4173	. . .	{Phase distribution}
Until reclassification is complete, groups G01N 21/3559 and G01N 21/3554 should be considered in order to perform a complete search.			2021/418	. . . . .	{Frequency/phase diagrams}
21/3563	. . . . .	for analysing solids; Preparation of samples therefor	2021/4186	. . . . .	{Phase modulation imaging}
2021/3568	. . . . .	{applied to semiconductors, e.g. Silicon}	2021/4193	. . . . .	{using a PSD}
2021/3572	. . . . .	{Preparation of samples, e.g. salt matrices}	21/43	. . .	by measuring critical angle
21/3577	. . . . .	for analysing liquids, e.g. polluted water	21/431	. . . . .	{Dip refractometers, e.g. using optical fibres}
21/3581	. . . . .	using far infra-red light; using Terahertz radiation	2021/432	. . . . .	{comprising optical fibres}
21/3586	. . . . .	by Terahertz time domain spectroscopy [THz-TDS]	2021/433	. . . . .	{with an unclad part on the fibre}
21/359	. . . . .	using near infra-red light	2021/434	. . . . .	{Dipping block in contact with sample, e.g. prism}
2021/3595	. . . . .	{using FTIR}	2021/435	. . . . .	{Sensing drops on the contact surface}
21/37	. . . . .	using pneumatic detection (opto-acoustic detection G01N 21/1702)	2021/436	. . . . .	{Sensing resonant reflection}
21/39	. . . . .	using tunable lasers	2021/437	. . . . .	{with investigation of angle}
2021/391	. . . . .	{Intracavity sample}	2021/438	. . . . .	{with investigation of wavelength}
2021/392	. . . . .	{Measuring reradiation, e.g. fluorescence, backscatter}	21/45	. . .	using interferometric methods; using Schlieren methods
2021/393	. . . . .	{and using a spectral variation of the interaction of the laser beam and the sample}	2021/451	. . . . .	{for determining the optical absorption}
2021/394	. . . . .	{DIAL method}	21/453	. . . . .	{Holographic interferometry (for dimensional measurements G01B 9/021 - G01B 9/029)}
2021/395	. . . . .	{using a topographic target}	21/455	. . . . .	{Schlieren methods, e.g. for gradient index determination; Shadowgraph}
			2021/456	. . . . .	{Moire deflectometry}
			2021/458	. . . . .	{using interferential sensor, e.g. sensor fibre, possibly on optical waveguide}
			21/47	. .	Scattering, i.e. diffuse reflection (G01N 21/25 , G01N 21/41 take precedence G01N 21/55 takes precedence)
			2021/4702	. . .	{Global scatter; Total scatter, excluding reflections}
			2021/4704	. . .	{Angular selective}
			2021/4707	. . . . .	{Forward scatter; Low angle scatter}
			2021/4709	. . . . .	{Backscatter}
			2021/4711	. . . . .	{Multiangle measurement}
			2021/4714	. . . . .	{Continuous plural angles}
			2021/4716	. . . . .	{Using a ring of sensors, or a combination of diaphragm and sensors; Annular sensor}
			2021/4719	. . . . .	{using a optical fibre array}
			2021/4721	. . . . .	{using a PSD}
			2021/4723	. . . . .	{Scanning scatter angles}

2021/4726	. . . .	{Detecting scatter at 90°}	21/538	. . . . .	{for determining atmospheric attenuation and visibility}
2021/4728	. . . .	{Optical definition of scattering volume}	21/55	. .	Specular reflectivity
2021/473	. . .	{Compensating for unwanted scatter, e.g. reliefs, marks}	2021/551	. . .	{Retroreflectance}
2021/4733	. . .	{Discriminating different types of scatterers}	21/552	. . .	Attenuated total reflection
2021/4735	. . .	{Solid samples, e.g. paper, glass}	21/553	. . . .	{and using surface plasmons (fluorescence excitation G01N 21/648 ; enhanced Raman G01N 21/658)}
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}	21/554	. . . . .	{detecting the surface plasmon resonance of nanostructured metals, e.g. localised surface plasmon resonance}
21/474	. . . .	{Details of optical heads therefor, e.g. using optical fibres}	2021/555	. . .	{Measuring total reflection power, i.e. scattering and specular}
2021/4742	. . . . .	{comprising optical fibres}	2021/556	. . .	{Measuring separately scattering and specular}
2021/4745	. . . . .	{Fused bundle, i.e. for backscatter}	2021/557	. . .	{Detecting specular reflective parts on sample}
2021/4747	. . . . .	{Concentric bundles}	2021/558	. . .	{Measuring reflectivity and transmission}
2021/475	. . . . .	{Bifurcated bundle}	2021/559	. . .	{Determining variation of specular reflection within diffusively reflecting sample}
2021/4752	. . . . .	{Geometry}	21/57	. . .	Measuring gloss
2021/4754	. . . . .	{Diffuse illumination}	2021/575	. . . .	{Photogoniometering}
2021/4757	. . . . .	{Geometry 0/45° or 45/0°}	21/59	. .	Transmissivity (G01N 21/25 takes precedence)
2021/4759	. . . . .	{Annular illumination}	2021/5903	. . .	{using surface plasmon resonance [SPR], e.g. extraordinary optical transmission [EOT]}
2021/4761	. . . . .	{Mirror arrangements, e.g. in IR range}	21/5907	. . .	{Densitometers}
2021/4764	. . . .	{Special kinds of physical applications}	21/5911	. . . .	{of the scanning type (scanning per se G02B)}
2021/4766	. . . . .	{Sample containing fluorescent brighteners}	2021/5915	. . . .	{Processing scan data in densitometry}
2021/4769	. . . . .	{Fluid samples, e.g. slurries, granulates; Compressible powdery of fibrous samples}	2021/5919	. . . . .	{Determining total density of a zone}
2021/4771	. . . . .	{Matte surfaces with reflecting particles}	2021/5923	. . . . .	{Determining zones of density; quantitating spots}
2021/4773	. . . . .	{Partly or totally translucent samples}	2021/5926	. . . . .	{Isodensitometers}
2021/4776	. . . .	{Miscellaneous in diffuse reflection devices}	2021/593	. . . . .	{Correcting from the background density}
2021/4778	. . . . .	{Correcting variations in front distance}	2021/5934	. . . . .	{Averaging on a zone}
2021/478	. . . . .	{Application in testing analytical test strips}	2021/5938	. . . . .	{Features of monitor, display}
2021/4783	. . . . .	{Examining under varying incidence; Angularly adjustable head}	2021/5942	. . . . .	{for dot area ratio in printing applications}
21/4785	. . .	{Standardising light scatter apparatus; Standards therefor}	2021/5946	. . . . .	{for binary signal}
21/4788	. . .	{Diffraction (for sizing particles G01N 15/0205)}	2021/5949	. . . . .	{Correcting nonlinearity of signal, e.g. in measurement of photomedium}
2021/479	. . . .	{Speckle}	2021/5953	. . . . .	{for detecting a spatial spectrum}
2021/4792	. . . .	{Polarisation of scatter light}	2021/5957	. . . .	{using an image detector type detector, e.g. CCD}
21/4795	. . .	{spatially resolved investigating of object in scattering medium (in vivo A61B)}	2021/5961	. . . . .	{using arrays of sources and detectors}
2021/4797	. . . .	{time resolved, e.g. analysis of ballistic photons}	2021/5965	. . . . .	{using selected detectors in an array}
21/49	. . .	within a body or fluid	2021/5969	. . . .	{Scanning of a tube, a cuvette, a volume of sample}
2021/495	. . . .	{the fluid being adsorbed, e.g. in porous medium}	2021/5973	. . . . .	{where the cuvette or tube is moved}
21/51	. . . .	inside a container, e.g. in an ampoule (G01N 21/53 takes precedence; checking containers for cleanliness B08B 9/46)	2021/5976	. . . .	{Image projected and scanning projected image}
2021/513	. . . . .	{Cuvettes for scattering measurements}	2021/598	. . . .	{Features of mounting, adjusting}
2021/516	. . . . .	{Multiple excitation of scattering medium, e.g. by retro-reflected or multiply reflected excitation rays}	2021/5984	. . . . .	{height adjustable}
21/53	. . . .	within a flowing fluid, e.g. smoke (alarm devices actuated by smoke G08B 17/10)	2021/5988	. . . . .	{Fluid mounting or the like, e.g. vortex}
21/532	. . . . .	{with measurement of scattering and transmission}	2021/5992	. . . . .	{Double pass}
21/534	. . . . .	{by measuring transmission alone, i.e. determining opacity}	2021/5996	. . . . .	{Positioning the head}
2021/536	. . . . .	{Measurement device mounted at stack}	21/61	. . .	Non-dispersive gas analysers (G01N 21/3504 takes precedence)
			21/62	. .	Systems in which the material investigated is excited whereby it emits light or causes a change in wavelength of the incident light
			2021/625	. .	{Excitation by energised particles such as metastable molecules}
			21/63	. .	optically excited
			21/631	. . .	{using photolysis and investigating photolysed fragments}

2021/632	. . . .	{Predissociation, e.g. for fluorescence of transient excited radicals}	2021/6473	. . . . .	{In-line geometry}
2021/633	. . .	{Photoinduced grating used for analysis}	2021/6476	. . . . .	{Front end, i.e. backscatter, geometry}
2021/634	. . .	{Photochromic material analysis}	2021/6478	. . . . .	{Special lenses}
2021/635	. . .	{Photosynthetic material analysis, e.g. chlorophyll}	21/648	. . . . .	{using evanescent coupling or surface plasmon coupling for the excitation of fluorescence}
21/636	. . .	{using an arrangement of pump beam and probe beam; using the measurement of optical non-linear properties; (non-linear optics per se G02F 1/35)}	2021/6482	. . . . .	{Sample cells, cuvettes}
2021/637	. . . .	{Lasing effect used for analysis}	2021/6484	. . . . .	{Optical fibres}
2021/638	. . . .	{Brillouin effect, e.g. stimulated Brillouin effect}	21/6486	. . . . .	{Measuring fluorescence of biological material, e.g. DNA, RNA, cells (G01N 21/6428 takes precedence)}
21/64	. . .	Fluorescence; Phosphorescence	21/6489	. . . . .	{Photoluminescence of semiconductors}
21/6402	. . . .	{Atomic fluorescence; Laser induced fluorescence}	2021/6491	. . . . .	{Measuring fluorescence and transmission; Correcting inner filter effect}
21/6404	. . . . .	{Atomic fluorescence}	2021/6493	. . . . .	{by alternating fluorescence/transmission or fluorescence/reflection}
2021/6406	. . . . .	{multi-element}	2021/6495	. . . . .	{Miscellaneous methods}
21/6408	. . . .	{with measurement of decay time, time resolved fluorescence}	2021/6497	. . . . .	{Miscellaneous applications}
2021/641	. . . . .	{Phosphorimetry, gated}	21/65	. . .	Raman scattering
2021/6413	. . . . .	{Distinction short and delayed fluorescence or phosphorescence}	2021/651	. . . . .	{Cuvettes therefore}
2021/6415	. . . . .	{with two excitations, e.g. strong pump/probe flash}	2021/653	. . . . .	{Coherent methods [CARS]}
2021/6417	. . . . .	{Spectrofluorimetric devices}	2021/655	. . . . .	{Stimulated Raman}
2021/6419	. . . . .	{Excitation at two or more wavelengths}	2021/656	. . . . .	{Raman microprobe}
2021/6421	. . . . .	{Measuring at two or more wavelengths}	21/658	. . . . .	{enhancement Raman, e.g. surface plasmons}
2021/6423	. . . . .	{Spectral mapping, video display}	21/66	. .	electrically excited, e.g. electroluminescence
2021/6426	. . . . .	{Determining Fraunhofer lines}	21/67	. . .	using electric arcs or discharges (spark gaps per se H01T)
21/6428	. . . . .	{Measuring fluorescence of fluorescent products of reactions or of fluorochrome labelled reactive substances, e.g. measuring quenching effects, using measuring "optrodes" (in vivo A61B 5/00; immunoassay G01N 33/53)}	21/68	. . .	using high frequency electric fields
21/643	. . . . .	{non-biological material}	21/69	. . .	specially adapted for fluids {, e.g. molten metal}
2021/6432	. . . . .	{Quenching}	2021/695	. . . . .	{Molten metals}
2021/6434	. . . . .	{Optrodes}	21/70	. .	mechanically excited, e.g. triboluminescence
2021/6436	. . . . .	{for analysing tapes}	21/71	. .	thermally excited
2021/6439	. . . . .	{with indicators, stains, dyes, tags, labels, marks}	2021/712	. . .	{using formation of volatile hydride}
2021/6441	. . . . .	{with two or more labels}	21/714	. . .	{Sample nebulisers for flame burners or plasma burners (nebulizers per se B05B)}
2021/6443	. . . . .	{Fluorimetric titration}	21/716	. . .	{by measuring the radiation emitted by a test object treated by combustion gases for investigating the composition of gas mixtures}
21/6445	. . . . .	{Measuring fluorescence polarisation}	21/718	. . .	{Laser microanalysis, i.e. with formation of sample plasma}
21/6447	. . . . .	{by visual observation}	21/72	. . .	using flame burners
21/645	. . . . .	{Specially adapted constructive features of fluorimeters}	2021/725	. . . . .	{for determining of metalloids, using Beilstein type reaction}
21/6452	. . . . .	{Individual samples arranged in a regular 2D-array, e.g. multiwell plates}	21/73	. . .	using plasma burners or torches
21/6454	. . . . .	{using an integrated detector array}	21/74	. . .	using flameless atomising, e.g. graphite furnaces
21/6456	. . . . .	{Spatial resolved fluorescence measurements; Imaging}	2021/745	. . . . .	{Control of temperature, heating, ashing}
21/6458	. . . . .	{Fluorescence microscopy (fluorescence microscopes per se G02B 21/0076 and G02B 21/16)}	21/75	. .	Systems in which material is subjected to a chemical reaction, the progress or the result of the reaction being investigated (systems in which material is burnt in a flame or plasma G01N 21/72, G01N 21/73)
2021/646	. . . . .	{Detecting fluorescent inhomogeneities at a position, e.g. for detecting defects}	2021/751	. .	{Comparing reactive/non reactive substances}
2021/6463	. . . . .	{Optics}	2021/752	. .	{Devices comprising reaction zones}
2021/6465	. . . . .	{Angular discrimination}	2021/754	. .	{Reagent flow and intermittent injection of sample or vice versa}
2021/6467	. . . . .	{Axial flow and illumination}	2021/755	. .	{Comparing readings with/without reagents, or before/after reaction}
2021/6469	. . . . .	{Cavity, e.g. ellipsoid}	2021/757	. .	{using immobilised reagents}
2021/6471	. . . . .	{Special filters, filter wheel}	2021/758	. .	{using reversible reaction}

21/76	. . Chemiluminescence; Bioluminescence	2021/8433	. . . . {Comparing coated/uncoated parts}
21/763	. . . {Bioluminescence}	2021/8438	. . . {Multilayers}
21/766	. . . {of gases}	2021/8444	. . {Fibrous material}
21/77	. . by observing the effect on a chemical indicator	2021/845	. . {Objects on a conveyor}
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)}	2021/8455	. . . {and using position detectors}
2021/7706	. . . . {Reagent provision}	2021/8461	. . {Investigating impurities in semiconductor, e.g. Silicon}
2021/7709	. . . . {Distributed reagent, e.g. over length of guide}	2021/8466	. . {Investigation of vegetal material, e.g. leaves, plants, fruits}
2021/7713	. . . . . {in core}	2021/8472	. . {Investigation of composite materials}
2021/7716	. . . . . {in cladding}	2021/8477	. . {Investigating crystals, e.g. liquid crystals}
2021/772	. . . . . {Tip coated light guide}	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)}
2021/7723	. . . . . {Swelling part, also for adsorption sensor, i.e. without chemical reaction}	2021/8488	. . . {the band presenting reference patches}
2021/7726	. . . . . {Porous glass}	2021/8494	. . . {Measuring or storing parameters of the band}
2021/773	. . . . . {Porous polymer jacket; Polymer matrix with indicator}	21/85	. . Investigating moving fluids or granular solids
2021/7733	. . . . . {Reservoir, liquid reagent}	21/8507	. . . {Probe photometers, i.e. with optical measuring part dipped into fluid sample}
2021/7736	. . . . . {exposed, cladding free}	2021/8514	. . . . {with immersed mirror}
21/774	. . . . {the reagent being on a grating or periodic structure}	2021/8521	. . . . . {with a combination mirror cell-cuvette}
21/7743	. . . . . {the reagent-coated grating coupling light in or out of the waveguide}	2021/8528	. . . . {Immersed light conductor}
21/7746	. . . . {the waveguide coupled to a cavity resonator}	2021/8535	. . . . . {presenting a cut}
2021/775	. . . {Indicator and selective membrane}	2021/8542	. . . . . {presenting an exposed part of the core}
2021/7753	. . . {Reagent layer on photoelectrical transducer}	2021/855	. . . . {Underground probe, e.g. with provision of a penetration tool}
2021/7756	. . . {Sensor type}	2021/8557	. . . {Special shaping of flow, e.g. using a by-pass line, jet flow, curtain flow}
2021/7759	. . . . {Dipstick; Test strip}	2021/8564	. . . . {Sample as drops}
2021/7763	. . . . {Sample through flow}	2021/8571	. . . {using filtering of sample fluid}
2021/7766	. . . . {Capillary fill}	2021/8578	. . . {Gaseous flow (IR analysers G01N 21/8507)}
2021/7769	. . . {Measurement method of reaction-produced change in sensor}	2021/8585	. . . . {using porous sheets, e.g. for separating aerosols}
2021/7773	. . . . {Reflection}	2021/8592	. . . {Grain or other flowing solid samples}
2021/7776	. . . . {Index}	21/86	. . Investigating moving sheets (G01N 21/89 takes precedence)
2021/7779	. . . . {interferometric}	2021/8609	. . . {Optical head specially adapted}
2021/7783	. . . . {Transmission, loss}	2021/8618	. . . . {with an optically integrating part, e.g. hemisphere}
2021/7786	. . . . {Fluorescence}	2021/8627	. . . . . {with an illuminator over the whole width}
2021/7789	. . . . {Cavity or resonator}	2021/8636	. . . . . {Detecting arrangement therefore, e.g. collimators, screens}
2021/7793	. . . {Sensor comprising plural indicators}	2021/8645	. . . {using multidetectors, detector array}
2021/7796	. . . {Special mountings, packaging of indicators}	2021/8654	. . . {Mechanical support; Mounting of sheet}
21/78	. . . producing a change of colour	2021/8663	. . . {Paper, e.g. gloss, moisture content (inspecting the presence of flaws in moving materials, e.g. paper G01N 21/89 ; measurement of gloss in general G01N 21/57)}
21/783	. . . . {for analysing gases}	2021/8672	. . . . {Paper formation parameter}
2021/786	. . . . {with auxiliary heating for reaction}	2021/8681	. . . . {Paper fibre orientation}
21/79	. . . . Photometric titration	2021/869	. . . {Plastics or polymeric material, e.g. polymers orientation in plastic, adhesive imprinted band}
21/80	. . . . Indicating pH value	21/87	. . Investigating jewels (G01N 21/88 takes precedence)
21/81	. . . . Indicating humidity	21/88	. . Investigating the presence of flaws or contamination
21/82	. . . producing a precipitate or turbidity	21/8803	. . . {Visual inspection (measuring projectors G01B 9/08)}
2021/825	. . . . {Agglutination}	21/8806	. . . {Specially adapted optical and illumination features}
21/83	. . . . Turbidimetric titration		
21/84	. Systems specially adapted for particular applications		
2021/8405	. . {Application to two-phase or mixed materials, e.g. gas dissolved in liquids}		
2021/8411	. . {Application to online plant, process monitoring}		
2021/8416	. . . {and process controlling, not otherwise provided for}		
21/8422	. . {Investigating thin films, e.g. matrix isolation method}		
2021/8427	. . . {Coatings}		

2021/8809	. . . .	{Adjustment for highlighting flaws}	2021/8904	. . . . .	{Sheetwide light conductor on detecting side, e.g. fluorescing light rod}
2021/8812	. . . .	{Diffuse illumination, e.g. "sky"}	2021/8905	. . . . .	{Directional selective optics, e.g. slits, spatial filters}
2021/8816	. . . . .	{by using multiple sources, e.g. LEDs}	2021/8907	. . . . .	{Cylindrical optics}
2021/8819	. . . . .	{by using retroreflecting screen}	2021/8908	. . . . .	{Strip illuminator, e.g. light tube}
2021/8822	. . . . .	{Dark field detection}	2021/8909	. . . . .	{Scan signal processing specially adapted for inspection of running sheets}
2021/8825	. . . . .	{Separate detection of dark field and bright field}	2021/891	. . . . .	{Edge discrimination, e.g. by signal filtering}
2021/8829	. . . . .	{Shadow projection or structured background, e.g. for deflectometry (three-dimensional metrology of surfaces G01B 11/25)}	2021/8911	. . . . .	{Setting scan-width signals}
2021/8832	. . . . .	{Structured background, e.g. for transparent objects}	2021/8912	. . . . .	{Processing using lane subdivision}
2021/8835	. . . . .	{Adjustable illumination, e.g. software adjustable screen}	21/8914	. . . . .	{characterised by the material examined}
2021/8838	. . . . .	{Stroboscopic illumination; synchronised illumination}	21/8915	. . . . .	{non-woven textile material}
2021/8841	. . . . .	{Illumination and detection on two sides of object}	21/8916	. . . . .	{for testing photographic material}
2021/8845	. . . . .	{Multiple wavelengths of illumination or detection}	2021/8917	. . . . .	{Paper, also undulated}
2021/8848	. . . . .	{Polarisation of light}	2021/8918	. . . . .	{Metal}
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)}	21/892	. . . .	characterised by the flaw, defect or object feature examined
2021/8854	. . . . .	{Grading and classifying of flaws}	21/8921	. . . . .	{Streaks}
2021/8858	. . . . .	{Flaw counting}	21/8922	. . . . .	{Periodic flaws}
2021/8861	. . . . .	{Determining coordinates of flaws}	2021/8924	. . . . .	{Dents; Relief flaws}
2021/8864	. . . . .	{Mapping zones of defects}	2021/8925	. . . . .	{Inclusions}
2021/8867	. . . . .	{using sequentially two or more inspection runs, e.g. coarse and fine, or detecting then analysing}	2021/8927	. . . . .	{Defects in a structured web}
2021/887	. . . . .	{the measurements made in two or more directions, angles, positions}	2021/8928	. . . . .	{Haze defects, i.e. with a part of diffracted light}
2021/8874	. . . . .	{Taking dimensions of defect into account}	21/894	. . . . .	Pinholes
2021/8877	. . . . .	{Proximity analysis, local statistics}	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)}
2021/888	. . . . .	{Marking defects}	2021/8962	. . . . .	{for detecting separately opaque flaws and refracting flaws}
2021/8883	. . . . .	{involving the calculation of gauges, generating models}	2021/8965	. . . . .	{using slant illumination, using internally reflected light}
2021/8887	. . . . .	{based on image processing techniques}	2021/8967	. . . . .	{Discriminating defects on opposite sides or at different depths of sheet or rod}
2021/889	. . . . .	{providing a bare video image, i.e. without visual measurement aids}	21/898	. . . . .	irregularities in textured or patterned surfaces, e.g. textiles, wood
2021/8893	. . . . .	{providing a video image and a processed signal for helping visual decision}	21/8983	. . . . .	{for testing textile webs, i.e. woven material}
2021/8896	. . . . .	{Circuits specially adapted for system specific signal conditioning}	21/8986	. . . . .	{Wood}
21/89	. . .	in moving material, e.g. running paper or textiles (G01N 21/90 , G01N 21/91 , G01N 21/94 take precedence)	21/90	. . .	in a container or its contents (G01N 21/91 takes precedence)
21/8901	. . . . .	{Optical details; Scanning details (per se G02B)}	21/9009	. . . .	{Non-optical constructional details affecting optical inspection, e.g. cleaning mechanisms for optical parts, vibration reduction}
2021/8902	. . . . .	{Anamorphic spot}	21/9018	. . . . .	{Dirt detection in containers}
21/8903	. . . . .	{using a multiple detector array}	21/9027	. . . . .	{in containers after filling}
			21/9036	. . . . .	{using arrays of emitters or receivers}
			21/9045	. . . . .	{Inspection of ornamented or stippled container walls}
			21/9054	. . . . .	{Inspection of sealing surface and container finish}
			2021/9063	. . . . .	{Hot-end container inspection}
			21/9072	. . . . .	{with illumination or detection from inside the container}
			21/9081	. . . . .	{Inspection especially designed for plastic containers, e.g. preforms}
			21/909	. . . . .	{in opaque containers or opaque container parts, e.g. cans, tins, caps, labels}
			21/91	. . .	using penetration of dyes, e.g. fluorescent ink

21/93	. . .	Detection standards; Calibrating {baseline adjustment, drift correction}	21/95684	. . . . .	{Patterns showing highly reflecting parts, e.g. metallic elements}
2021/933	. . . .	{Adjusting baseline or gain (also for web inspection)}	21/95692	. . . . .	{Patterns showing hole parts, e.g. honeycomb filtering structures}
2021/936	. . . .	{Adjusting threshold, e.g. by way of moving average}	21/958	. . . .	Inspecting transparent materials {or objects, e.g. windscreens (for conveyed flat sheet or rod G01N 21/896)}
21/94	. . .	Investigating contamination, e.g. dust (G01N 21/85 takes precedence)	2021/9583	. . . . .	{Lenses}
2021/945	. . . .	{Liquid or solid deposits of macroscopic size on surfaces, e.g. drops, films, or clustered contaminants (dust particles and microscopic contaminants in G01N 21/94)}	2021/9586	. . . . .	{Windscreens}
21/95	. . .	characterised by the material or shape of the object to be examined (G01N 21/89 - G01N 21/91 , G01N 21/94 take precedence)	22/00		Investigating or analysing materials by the use of microwaves (G01N 3/00 - G01N 17/00, G01N 24/00 take precedence)
21/9501	. . . .	{Semiconductor wafers (manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10)}	22/005	. . . . .	{and using Stark effect modulation}
21/9503	. . . . .	{Wafer edge inspection}	22/02	. . . . .	Investigating the presence of flaws
21/9505	. . . . .	{Wafer internal defects, e.g. microcracks}	22/04	. . . . .	Investigating moisture content
21/9506	. . . . .	{Optical discs}	23/00		Investigating or analysing materials by the use of wave or particle radiation not covered by G01N 21/00 or G01N 22/00, e.g. X-rays or neutrons (G01N 3/00 - G01N 17/00 take precedence; measuring stress in general G01L 1/00; measurement of nuclear or X-radiation G01T; introducing objects or materials into nuclear reactors, or removing them therefrom, or storing them after treatment therein G21C; construction or operation of X-ray apparatus or circuits therefor H05G)
21/9508	. . . . .	{Capsules; Tablets}	23/005	. . . . .	{by using neutrons (G01N 23/02 - G01N 23/227 take precedence)}
21/951	. . . . .	{Balls}	23/02	. . . . .	by transmitting the radiation through the material
2021/9511	. . . .	{Optical elements other than lenses, e.g. mirrors (testing of optical apparatus in G01M 11/00)}	23/025	. . . . .	{using neutrons}
2021/9513	. . . . .	{Liquid crystal panels}	23/04	. . . . .	and forming a picture (electron microscope per se H01J)
21/9515	. . . . .	{Objects of complex shape, e.g. examined with use of a surface follower device (measuring contours and curvatures G01B 11/24)}	23/043	. . . . .	{using fluoroscopic examination, with visual observation or video transmission of fluoroscopic images}
2021/9516	. . . . .	{whereby geometrical features are being masked}	23/046	. . . . .	{using tomography, e.g. computer tomography (radiation tomography used in diagnosis A61B 6/02)}
2021/9518	. . . . .	{using a surface follower, e.g. robot}	23/05	. . . . .	using neutrons
21/952	. . . . .	Inspecting the exterior surface of cylindrical bodies or wires (G01N 21/956 takes precedence)	23/06	. . . . .	and measuring the absorption
21/954	. . . . .	Inspecting the inner surface of hollow bodies, e.g. bores	23/063	. . . . .	{X-ray absorption fine structure, i.e. EXAFS (G01N 23/2076 takes precedence)}
2021/9542	. . . . .	{using a probe}	23/066	. . . . .	{Gamma-ray resonance absorption, e.g. Mössbauer effect (resonant absorbers or driving arrangements therefor, e.g. for Mössbauer effect devices G21K 1/12)}
2021/9544	. . . . .	{with emitter and receiver on the probe}	23/08	. . . . .	using electric detection means
2021/9546	. . . . .	{with remote light transmitting, e.g. optical fibres}	23/083	. . . . .	the radiation being X-rays (G01N 23/10 - G01N 23/18 take precedence)
2021/9548	. . . . .	{Scanning the interior of a cylinder}	23/087	. . . . .	using polyenergetic X-rays
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 })	23/09	. . . . .	the radiation being neutrons
21/95607	. . . . .	{using a comparative method}	23/10	. . . . .	the material being confined in a container (G01N 23/09 takes precedence)
2021/95615	. . . . .	{with stored comparison signal}	23/12	. . . . .	the material being a flowing fluid or a flowing granular solid (G01N 23/09 takes precedence)
21/95623	. . . . .	{using a spatial filtering method (per se G02B)}	23/125	. . . . .	{with immersed detecting head}
2021/9563	. . . . .	{and suppressing pattern images}	23/14	. . . . .	specially adapted for controlling or monitoring operations or for signalling
2021/95638	. . . . .	{for PCB's}	23/16	. . . . .	the material being a moving sheet {or a sheet or tube examined by a scanning probe} (G01N 23/09 , G01N 23/18 take precedence)
2021/95646	. . . . .	{Soldering}	23/18	. . . . .	Investigating the presence of flaws (G01N 23/09 takes precedence)
2021/95653	. . . . .	{Through-holes}			
2021/95661	. . . . .	{for leads, e.g. position, curvature}			
2021/95669	. . . . .	{for solder coating, coverage}			
2021/95676	. . . . .	{Masks, reticles, shadow masks}			

- 23/185 {in tyres (testing tyre performance [G01M 17/02](#))}
- 23/20 . by using diffraction of the radiation, e.g. for investigating crystal structure; by using reflection of the radiation
- 23/20008 . . {Constructional details; Accessories (monochromators for X-rays using crystals [G21K 1/06](#); using gratings [G01J 3/1833](#))}
- 23/20016 . . . {Goniometers}
- 23/20025 . . . {Sample holders or supports}
- 23/20033 {provided with temperature control or heating devices}
- 23/20041 {for high pressure testing, e.g. anvil cells}
- 23/2005 . . . {Details concerning the preparation of powder samples}
- 23/20058 . . {by measuring diffraction of electrons, e.g. LEED method}
- 23/20066 . . {by measuring inelastic scatter of gamma rays, e.g. Compton effect}
- 23/20075 . . {by measuring interferences of X-rays, e.g. Borrmann effect}
- 23/20083 . . {by using a combination of at least two measurements at least one being a transmission measurement and one a scatter measurement}
- 23/20091 . . {by measuring the energy-dispersion spectrum of diffracted radiation, i.e. EDS ([G01T 1/36](#) takes precedence)}
- 23/201 . . by measuring small-angle scattering ([G01N 23/202](#) takes precedence)}
- 23/202 . . . using neutrons
- 23/203 . . by measuring back scattering
- 23/204 . . . using neutrons
- 23/205 . . by means of diffraction cameras ([G01N 23/201](#) takes precedence)
- 23/2055 . . . {Analysing diffraction patterns (optical densitometers [G01N 21/5907](#))}
- 23/206 . . . the radiation being neutrons ([G01N 23/2055](#) takes precedence)}
- 23/207 . . by means of diffractometry using detectors, e.g. using an analysing crystal or a crystal to be analysed in a central position and one or more displaceable detectors in circumferential positions ([G01N 23/201](#) {[G01N 23/2073](#) take precedence; spectrometry of detected or measured radiation intensity [G01T 1/36](#))}
- 23/2073 . . . {using neutron detectors ([G01N 23/202](#) takes precedence; neutron spectrometry [G01T 3/00](#))}
- 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 (analysis by X-ray fluorescence in general [G01N 23/223](#); Spectrometry of X-rays or gamma-ray beams *per se* [G01T 1/36](#))}
- 23/22 . . by measuring secondary emission
- NOTE**
- Devices *per se* are classified in the relevant places, e.g. [H01J 37/00](#), [H01J 49/00](#)
- 23/2202 . . {Preparing specimens (in general [G01N 1/28](#))}
- 23/2204 . . {Specimen supports; Sample conveying means (as parts of specific apparatus, *see the relevant groups*, e.g. [H01J 37/20](#) and [H01J 49/00](#))}
- 23/2206 . . {using a combination of at least two kinds of measurements, with at least one measurement of secondary emission}
- 23/2208 . . . {using a combination of at least two kinds of measurements, each one being of a secondary emission kind}
- 23/221 . . by activation analysis
- 23/222 . . . using neutrons
- 23/223 . . by irradiating the sample with X-rays {or gamma-rays} and by measuring X-ray fluorescence ([G01N 23/2076](#) takes precedence)}
- 23/225 . . using electron or ion microprobe {or incident electron or ion beam} (electron or ion beam tubes for microprobe analysis [H01J 37/00](#))
- 23/2251 . . . {with incident electron beam}
- 23/2252 {and measuring excited X-rays}
- 23/2254 {and measuring cathodoluminescence}
- 23/2255 . . . {with incident ion beam, e.g. proton beam}
- 23/2257 {and measuring X-rays excited from incident proton beam, i.e. PIXE}
- 23/2258 {and measuring secondary ion beam, i.e. SIMS}
- 23/227 . . by measuring photoelectric effect, e.g. Auger electrons
- 23/2273 . . . {by measuring photoelectron spectrum, i.e. ESCA, XPS}
- 23/2276 . . . {by measuring Auger electrons, i.e. AES}
- 24/00 Investigating or analyzing materials by the use of nuclear magnetic resonance, electron paramagnetic resonance or other spin effects (arrangements or instruments for measuring magnetic resonance effects [G01R 33/20](#))**
- 24/002 . {Using resonance on molecular beams (atomic clocks [G04F 5/14](#); beam masers [H01S 1/06](#))}
- 24/004 . {Using acoustical resonance, i.e. phonon interactions}
- 24/006 . {using optical pumping (magnetometers using optical pumping [G01R 33/26](#), optical pumping of lasers [H01S 3/091](#))}
- 24/008 . {by using resonance effects in zero field, e.g. in microwave, submillimetric region (by measuring absorption of microwaves by the material [G01N 22/00](#))}
- 24/08 . by using nuclear magnetic resonance ([G01N 24/12](#) takes precedence)
- 24/081 . . {Making measurements of geologic samples, e.g. measurements of moisture, pH, porosity, permeability, tortuosity or viscosity}
- 24/082 . . {Measurement of solid, liquid or gas content}
- 24/084 . . {Detection of potentially hazardous samples, e.g. toxic samples, explosives, drugs, firearms, weapons}
- 24/085 . . {Analysis of materials for the purpose of controlling industrial production systems}
- 24/087 . . {Structure determination of a chemical compound, e.g. of a biomolecule such as a protein}
- 24/088 . . {Assessment or manipulation of a chemical or biochemical reaction, e.g. verification whether a chemical reaction occurred or whether a ligand binds to a receptor in drug screening or assessing reaction kinetics}
- 24/10 . by using electron paramagnetic resonance ([G01N 24/12](#) takes precedence)

- 24/12 . by using double resonance
- 24/14 . by using cyclotron resonance
- 25/00 Investigating or analyzing materials by the use of thermal means (G01N 3/00 - G01N 23/00 take precedence)**
- 25/005 . {by investigating specific heat}
- 25/02 . by investigating changes of state or changes of phase; by investigating sintering {(investigating or analysing oils or hydrocarbon fluids by measuring cloud point or pour point G01N 33/2811)}
- 25/04 . . of melting point; of freezing point; of softening point
- 25/06 . . . Analysis by measuring change of freezing point
- 25/08 . . of boiling point
- 25/085 . . . {Investigating nucleation}
- 25/10 . . . Analysis by measuring change of boiling point
- 25/12 . . of critical point; of other phase change
- 25/14 . by using distillation, extraction, sublimation, condensation, freezing, or crystallisation (G01N 25/02 takes precedence)
- 25/142 . . {by condensation}
- 25/145 . . {Accessories, e.g. cooling devices (in general B01L, F25D)}
- 25/147 . . {by crystallisation}
- 25/16 . by investigating thermal coefficient of expansion
- 25/18 . by investigating thermal conductivity (by calorimetry G01N 25/20; by measuring change of resistance of an electrically-heated body G01N 27/18)
- 25/20 . by investigating the development of heat, i.e. calorimetry, e.g. by measuring specific heat, by measuring thermal conductivity (calorimeters per se G01K)
- 25/22 . . on combustion or catalytic oxidation, e.g. of components of gas mixtures
- 25/24 . . . using combustion tubes, e.g. for microanalysis
- 25/26 . . . using combustion with oxygen under pressure, e.g. in bomb calorimeter
- 25/28 . . . the rise in temperature of the gases resulting from combustion being measured directly
- 25/30 using electric temperature-responsive elements
- 25/32 using thermoelectric elements
- 25/34 using mechanical temperature-responsive elements, e.g. bimetallic (bimetallic elements per se G12B 1/02)
- 25/36 for investigating the composition of gas mixtures
- 25/38 using the melting or combustion of a solid
- 25/385 {for investigating the composition of gas mixtures}
- 25/40 . . . the heat developed being transferred to a flowing fluid
- 25/42 continuously
- 25/44 . . . the heat developed being transferred to a fixed quantity of fluid
- 25/46 for investigating the composition of gas mixtures
- 25/48 . . on solution, sorption, or a chemical reaction not involving combustion or catalytic oxidation
- 25/4806 . . . {Details not adapted to a particular type of sample}
- 25/4813 {concerning the measuring means}
- 25/482 {concerning the temperature responsive elements (measuring temperature or quantity of heat, thermally-sensitive elements G01K; thermoelectric devices H01L 35/00, H01L 37/00)}
- 25/4826 {concerning the heating or cooling arrangements (heating apparatus for chemical or physical laboratory apparatus in general B01L 7/00)}
- 25/4833 {specially adapted for temperature scanning}
- 25/484 {Heat insulation}
- 25/4846 . . . {for a motionless, e.g. solid sample}
- 25/4853 {Details}
- 25/486 {Sample holders}
- 25/4866 {by using a differential method}
- 25/4873 . . . {for a flowing, e.g. gas sample}
- 25/488 {Details}
- 25/4886 {concerning the circulation of the sample}
- 25/4893 {by using a differential method}
- 25/50 . by investigating flash-point; by investigating explosibility
- 25/52 . . by determining flash-point of liquids
- 25/54 . . by determining explosibility
- 25/56 . by investigating moisture content
- 25/58 . . by measuring changes of properties of the material due to heat, cold or expansion
- 25/60 . . . for determining the wetness of steam
- 25/62 . . by psychrometric means, e.g. wet-and-dry bulb thermometers
- 25/64 . . . using electric temperature-responsive elements
- 25/66 . . by investigating dew-point
- 25/68 . . . by varying the temperature of a condensing surface
- 25/70 . . . by varying the temperature of the material, e.g. by compression, by expansion
- 25/72 . Investigating presence of flaws (by investigating thermal conductivity G01N 25/18)
- 27/00 Investigating or analysing materials by the use of electric, electro-chemical, or magnetic means (G01N 3/00 - G01N 25/00 take precedence; measurement or testing electric or magnetic variables or of electric or magnetic properties of materials G01R)**
- 27/002 . {by investigating the work function voltage}
- 27/005 . . {by determining the work function in vacuum}
- 27/007 . {by investigating the electric dipolar moment (measuring piezo-electric properties G01R 29/22)}
- 27/02 . by investigating the impedance of the material
- 27/021 . . {before and after chemical transformation of the material}
- 27/023 . . {where the material is placed in the field of a coil}
- 27/025 . . . {a current being generated within the material by induction}
- 27/026 . . {Dielectric impedance spectroscopy (electrochemical impedance spectroscopy for measuring corrosion G01N 17/02)}
- 27/028 . . {Circuits therefor (measuring impedance per se G01R 27/02)}
- 27/04 . . by investigating resistance {(for measuring the amount of particles G01N 15/0656)}
- 27/041 . . . {of a solid body}

- 27/043 . . . {of a granular material}
- 27/045 . . . {Circuits (measuring resistance [per se G01R 27/00](#), e.g. [G01R 27/22](#))}
- 27/046 {provided with temperature compensation}
- 27/048 {for determining moisture content of the material}
- 27/06 . . . of a liquid (involving electrolysis [G01N 27/26](#); involving polarography [G01N 27/48](#); measuring electric resistance of fluids [G01R 27/22](#))
- 27/07 Construction of measuring vessels; Electrodes therefor
- 27/08 which is flowing continuously
- 27/10 Investigation or analysis specially adapted for controlling or monitoring operations or for signalling ([regulating G05D](#))
- 27/12 . . . of a solid body in dependence upon absorption of a fluid; of a solid body in dependence upon reaction with a fluid, {for detecting components in the fluid}
- 27/121 {for determining moisture content, e.g. humidity, of the fluid (moisture content of the tested material [G01N 27/048](#))}
- 27/122 {Circuits particularly adapted therefor, e.g. linearising circuits}
- 27/123 {for controlling the temperature (temperature control [per se G05D 23/00](#))}
- 27/124 {varying the temperature, e.g. in a cyclic manner}
- 27/125 {Composition of the body, e.g. the composition of its sensitive layer}
- 27/126 {comprising organic polymers}
- 27/127 {comprising nanoparticles}
- 27/128 {Micro-apparatus}
- 27/129 {Diode type sensors, e.g. gas sensitive Schottky diodes (capacitor type sensors [G01N 27/227](#); field-effect transistor type sensors [G01N 27/414](#))}
- 27/14 . . . of an electrically-heated body in dependence upon change of temperature
- 27/16 caused by burning or catalytic oxidation of a surrounding material to be tested, e.g. of gas
- 27/18 caused by changes in the thermal conductivity of a surrounding material to be tested ([G01N 27/20](#) takes precedence)
- 27/185 {using a catharometer}
- 27/20 . . . Investigating the presence of flaws
- 27/205 {in insulating materials}
- 27/22 . . by investigating capacitance
- 27/221 . . . {by investigating the dielectric properties (using microwaves [G01N 22/00](#); measuring loss factors or dielectric constants [per se G01R 27/26](#))}
- 2027/222 {for analysing gases}
- 27/223 {for determining moisture content, e.g. humidity (rain detectors on vehicle windows [B60S 1/0825](#))}
- 27/225 {by using hygroscopic materials}
- 27/226 . . . {Construction of measuring vessels; Electrodes therefor}
- 27/227 {Sensors changing capacitance upon adsorption or absorption of fluid components, e.g. electrolyte-insulator-semiconductor sensors, MOS capacitors ([G01N 27/225](#) takes precedence)}
- 27/228 {Circuits therefor (measuring capacitance [per se G01R 27/26](#))}
- 27/24 . . . Investigating the presence of flaws
- 27/26 . . by investigating electrochemical variables; by using electrolysis or electrophoresis (investigating resistance to corrosion [G01N 17/00](#); investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography, [G01N 30/00](#); immunoelectrophoresis [G01N 33/561](#); electrochemical processes or apparatus in general [B01J](#); standard cells [H01M 6/28](#))
- 27/27 . . Association of two or more measuring systems or cells, each measuring a different parameter, where the measurement results may be either used independently, the systems or cells being physically associated, or combined to produce a value for a further parameter {, e.g. electrochemical electrode arrays (gas sensor arrays [G01N 33/0031](#))}
- 27/28 . . Electrolytic cell components
- 27/283 . . . {Means for supporting or introducing electrochemical probes}
- 27/286 {Power or signal connectors associated therewith}
- 27/30 . . . Electrodes, e.g. test electrodes; Half-cells ([G01N 27/414](#) takes precedence)
- 27/301 {Reference electrodes}
- 27/302 {pH sensitive, e.g. quinhydrone, antimony or hydrogen electrodes (ion selective electrodes [G01N 27/333](#), glass electrodes [G01N 27/36](#))}
- 27/304 {Gas permeable electrodes}
- 27/305 {optically transparent or photoresponsive electrodes}
- 27/307 {Disposable laminated or multilayered electrodes ([G01N 27/3272](#) takes precedence)}
- 27/308 {at least partially made of carbon}
- 27/31 Half-cells with permeable membranes, e.g. semi-porous or perm-selective membranes
- 27/32 Calomel electrodes
- 27/327 Biochemical electrodes {electrical and mechanical details of [in vitro](#) measurements (chemical and biological details [C12Q 1/00](#), [G01N 33/543](#); [in vivo A61B 5/00](#))}
- 27/3271 {Amperometric enzyme electrodes for analytes in body fluids, e.g. glucose in blood (amperometry [per se G01N 27/49](#); aspects concerning the enzyme reagent [C12Q 1/001](#))}
- 27/3272 {Test elements therefor, i.e. disposable laminated substrates with electrodes, reagent and channels (optical biosensors [G01N 33/52](#))}
- 27/3273 {Devices therefor, e.g. test element readers, circuitry (details not specific to biochemical electrodes [G01N 33/4875](#))}

- 27/3274 {Corrective measures, e.g. error detection, compensation for temperature or hematocrit, calibration (coding of calibration information [G01N 33/4871](#))}
- 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 33/4872](#); magnetic beads [G01N 27/745](#))}
- 27/333 Ion-selective electrodes or membranes (glass electrodes [G01N 27/36](#))
- 27/3335 {the membrane containing at least one organic component ([G01N 27/3271](#) takes precedence; aspects concerning the enzyme reagent in enzyme electrodes [C12Q 1/001](#))}
- 27/34 Dropping-mercury electrodes
- 27/36 Glass electrodes
- 27/38 Cleaning of electrodes
- 27/40 Semi-permeable membranes or partitions
- 27/401 Salt-bridge leaks; Liquid junctions
- 27/403 Cells and electrode assemblies
- 27/4035 {Combination of a single ion-sensing electrode and a single reference electrode ([G01N 27/406](#) and [G01N 27/413](#) take precedence)}
- 27/404 Cells with anode, cathode and cell electrolyte on the same side of a permeable membrane which separates them from the sample fluid {, e.g. Clark-type oxygen sensors}
- 27/4045 {for gases other than oxygen}
- 27/406 Cells and probes with solid electrolytes
- 27/4062 {Electrical connectors associated therewith}
- 27/4065 {Circuit arrangements specially adapted therefor}
- 27/4067 {Means for heating or controlling the temperature of the solid electrolyte}
- 27/407 for investigating or analysing gases {([G01N 27/411](#) takes precedence)}
- 27/4071 {using sensor elements of laminated structure}
- 27/4072 {characterized by the diffusion barrier}
- 27/4073 {Composition or fabrication of the solid electrolyte}
- 27/4074 {for detection of gases other than oxygen}
- 27/4075 {Composition or fabrication of the electrodes and coatings thereon, e.g. catalysts}
- 27/4076 {Reference electrodes or reference mixtures}
- 27/4077 {Means for protecting the electrolyte or the electrodes}
- 27/4078 {Means for sealing the sensor element in a housing}
- 27/409 Oxygen concentration cells
- 27/41 Oxygen pumping cells
- 27/411 for investigating liquid metals
- 27/4111 {using sensor elements of laminated structure}
- 27/4112 {Composition or fabrication of the solid electrolyte}
- 27/4114 {for detection of gases other than oxygen}
- 27/4115 {Composition or fabrication of the electrodes and coatings thereon, e.g. catalysts}
- 27/4117 {Reference electrodes or reference mixtures}
- 27/4118 {Means for protecting the electrolyte or the electrodes}
- 27/413 Concentration cells using liquid electrolytes {measuring currents or voltages in voltaic cells}
- 27/414 Ion-sensitive or chemical field-effect transistors, i.e. ISFETS or CHEMFETS
- 27/4141 {specially adapted for gases}
- 27/4143 {Air gap between gate and channel, i.e. suspended gate [SG] FETs (work function measurement [per se](#) [G01N 27/002](#))}
- 27/4145 {specially adapted for biomolecules, e.g. gate electrode with immobilised receptors}
- 27/4146 {involving nanosized elements, e.g. nanotubes, nanowires}
- 27/4148 {Integrated circuits therefor, e.g. fabricated by CMOS processing (CMOS processing [per se](#) [H01L 21/82](#))}
- 27/416 Systems ([G01N 27/27](#) takes precedence {; for testing batteries [G01R 31/36](#))}
- 27/4161 {measuring the voltage and using a constant current supply, e.g. chronopotentiometry}
- 27/4162 {investigating the composition of gases, by the influence exerted on ionic conductivity in a liquid (conductometry in general [G01N 27/06](#); amperometric gas sensors [G01N 27/404](#))}
- 27/4163 {checking the operation of, or calibrating, the measuring apparatus ([G01N 27/3274](#), [G01N 27/4175](#) and [G01N 33/0006](#) take precedence)}
- 27/4165 {for pH meters}
- 27/4166 {measuring a particular property of an electrolyte}
- 27/4167 {pH (electrodes therefor [G01N 27/302](#), [G01N 27/36](#))}
- 27/4168 {Oxidation-reduction potential, e.g. for chlorination of water (water analysis [G01N 33/18](#))}
- 27/417 using cells {, i.e. more than one cell} and probes with solid electrolytes
- 27/4175 {Calibrating or checking the analyser}
- 27/419 Measuring voltages or currents of oxygen pumping cells and oxygen concentration cells
- 27/42 Measuring disposition or liberation of materials from an electrolyte; Coulometry, i.e. measuring coulomb-equivalent of material in an electrolyte
- 27/423 {Coulometry}
- 27/426 {by weighing}

- 27/44 using electrolysis to regenerate a reagent, e.g. for titration
- 27/447 using electrophoresis {[\(aspects concerning peptides or proteins C07K 1/26; for non-analytical purposes B01D 57/02; separating particles by dielectrophoresis B03C 5/00\)](#)}
- 27/44704 {Details; Accessories}
- 27/44708 {Cooling}
- 27/44713 {Particularly adapted electric power supply}
- 27/44717 {Arrangements for investigating the separated zones, e.g. localising zones}
- 27/44721 {by optical means}
- 27/44726 {using specific dyes, markers or binding molecules}
- 27/4473 {by electric means}
- 27/44734 {by thermal means}
- 27/44739 {Collecting the separated zones, e.g. blotting to a membrane or punching of gel spots}
- 27/44743 {Introducing samples}
- 27/44747 {Composition of gel or of carrier mixture}
- 27/44752 {Controlling the zeta potential, e.g. by wall coatings}
- 27/44756 {Apparatus specially adapted therefor}
- 27/4476 {of the density gradient type}
- 27/44765 {of the counter-flow type}
- 27/44769 {Continuous electrophoresis, i.e. the sample being continuously introduced, e.g. free flow electrophoresis [FFE]}
- 27/44773 {Multi-stage electrophoresis, e.g. two-dimensional electrophoresis}
- 27/44778 {on a common gel carrier, i.e. 2D gel electrophoresis}
- 27/44782 {of a plurality of samples}
- 27/44786 {of the magneto-electrophoresis type}
- 27/44791 {Micro-apparatus [\(sample containers with integrated microfluidic structures B01L 3/5027\)](#)}
- 27/44795 {Isoelectric focusing}
- 27/453 Cells therefor
- 27/48 Polarography, i.e. measuring changes in current under a slowly-varying voltage
- 27/49 Systems involving the determination of the current at a single specific value, or small range of values, of applied voltage for producing selective measurement of one or more particular ionic species
- 27/60 . . by investigating electrostatic variables, e.g. electrographic flaw testing ([\(G01N 27/007 takes precedence \)](#) ; by investigating capacitance [G01N 27/22](#))
- 27/605 . . {for determining moisture content, e.g. humidity}
- 27/61 . . Investigating the presence of flaws
- 27/62 . . by investigating the ionisation of gases; by investigating electric discharges, e.g. emission of cathode [\(particle spectrometers per se H01J 49/00\)](#)
- 27/622 . . {separating and identifying ionized molecules based on their mobility in a carrier gas, i.e. ion mobility spectrometry [\(mass spectrometry H01J 49/26\)](#)}
- 27/624 . . . {using a non-uniform electric field, i.e. differential mobility spectrometry [DMS] or high-field asymmetric-waveform ion-mobility spectrometry [FAIMS]}
- 27/626 . . {using heat to ionise a gas}
- 27/628 . . . {and a beam of energy, e.g. laser enhanced ionisation}
- 27/64 . . using wave or particle radiation to ionise a gas, e.g. in an ionisation chamber [{\(discharge tubes for measuring pressure of introduced gas or for detecting presence of gas H01J 41/02\)}](#)
- 27/66 . . . and measuring current or voltage
- 27/68 . . using electric discharge to ionise a gas
- 27/70 . . . and measuring current or voltage
- 27/72 . . by investigating magnetic variables
- 27/725 . . {by using magneto-acoustical effects or the Barkhausen effect}
- 27/74 . . of fluids [\(G01N 24/00 takes precedence\)](#)
- 27/745 . . . {for detecting magnetic beads used in biochemical assays [\(concerning the assays G01N 33/54326; sensors therefor G01R 33/1269; automatic analysers therefor G01N 35/0098\)](#)}
- 27/76 . . . by investigating susceptibility [{\(measuring susceptibility G01R 33/16\)}](#)
- 27/80 . . for investigating mechanical hardness, e.g. by investigating saturation or remanence of ferromagnetic material
- 27/82 . . for investigating the presence of flaws
- 27/825 . . . {by using magnetic attraction force [\(G01N 27/84 takes precedence\)](#)}
- 27/83 . . . by investigating stray magnetic fields
- 27/84 by applying magnetic powder or magnetic ink
- 27/85 using magnetographic methods
- 27/87 using probes
- 27/90 . . . using eddy currents [{\(for measuring thickness G01B 7/06\)}](#)
- 27/9006 {Details}
- 27/9013 {specially adapted for scanning}
- 27/902 {by moving the sensors}
- 27/9026 {by moving the material}
- 27/9033 {Sensors}
- 27/904 {and more than one sensor}
- 27/9046 {by analysing electrical signals}
- 27/9053 {Compensating for probe to workpiece spacing}
- 27/906 {Compensating for velocity}
- 27/9066 {by measuring the propagation time, or delaying the signals}
- 27/9073 {Recording measured data [\(in general G01D\)](#)}
- 27/908 {synchronously with scanning}
- 27/9086 {Calibrating of recording device}
- 27/9093 {arrangements for supporting or marking or rejecting, e.g. machines [\(sorting individual articles or bulk material fit to be sorted piece-meal, controlled indirectly by devices which detect or measure some feature of the article or material to be sorted B07C 5/00\)](#)}

- 27/92 . by investigating breakdown voltage ([G01N 27/60](#), [G01N 27/62](#) take precedence; testing of articles or specimens of solids or fluids for dielectric strength or breakdown voltage [G01R 31/12](#))
- 29/00 Investigating or analysing materials by the use of ultrasonic, sonic or infrasonic waves; Visualisation of the interior of objects by transmitting ultrasonic or sonic waves through the object ([G01N 3/00](#) - [G01N 27/00](#) take precedence; measuring or indicating of ultrasonic, sonic or infrasonic waves in general [G01H](#); systems using the reflection or reradiation of acoustic waves, e.g. acoustic imaging, [G01S 15/00](#); obtaining records by techniques analogous to photography using ultrasonic, sonic or infrasonic waves [G03B 42/06](#); {medical diagnosis by ultrasounds [A61B 8/00](#); generating or transmitting mechanical or acoustic waves [B06B](#), [G10K](#); seismic or acoustic prospecting or detecting [G01V 1/00](#)})**
- 29/02 . Analysing fluids (using acoustic emission techniques [G01N 29/14](#); {constructional or flow details for analysing fluids [G01N 29/222](#); optoacoustic fluid cells [G01N 29/2425](#)})
- 29/022 . . {Fluid sensors based on micro-sensors, e.g. quartz crystal-microbalance [QCM], surface acoustic wave [SAW] devices, tuning forks, cantilevers, flexural plate wave [FPW] devices (micro-devices 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)}	29/36	. Detecting the response signal, {e.g. electronic circuits specially adapted therefor}
29/2425	. . . . {optoacoustic fluid cells therefor}	29/38	. . by time filtering, e.g. using time gates
29/2431	. . . {using other means for acoustic excitation, e.g. heat, microwaves, electron beams (sound producing devices not otherwise provided for G10K 15/04)}	29/40	. . by amplitude filtering, e.g. by applying a threshold {or by gain control}
29/2437	. . . {Piezoelectric probes}	29/42	. . by frequency filtering {or by tuning to resonant frequency}
29/2443	. . . . {Quartz crystal probes}	29/44	. Processing the detected response signal, {e.g. electronic circuits specially adapted therefor (digital signal processing per se G06F 17/00)}
29/245	. . . . {Ceramic probes, e.g. lead zirconate titanate [PZT] probes}	29/4409	. . {by comparison}
29/2456	. . . {Focusing probes (focusing arrangements G01N 29/221)}	29/4418	. . . {with a model, e.g. best-fit, regression analysis}
29/2462	. . . {Probes with waveguides, e.g. SAW devices}	29/4427	. . . {with stored values, e.g. threshold values}
29/2468	. . . {Probes with delay lines}	29/4436	. . . {with a reference signal (amplitude comparison G01N 29/48)}
29/2475	. . . {Embedded probes, i.e. probes incorporated in objects to be inspected}	29/4445	. . {Classification of defects}
29/2481	. . . {Wireless probes, e.g. with transponders or radio links}	29/4454	. . {Signal recognition, e.g. specific values or portions, signal events, signatures}
29/2487	. . . {Directing probes, e.g. angle probes (directing arrangements G01N 29/221)}	29/4463	. . {Signal correction, e.g. distance amplitude correction [DAC], distance gain size [DGS], noise filtering}
29/2493	. . . {Wheel shaped probes}	29/4472	. . {Mathematical theories or simulation}
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)}	29/4481	. . {Neural networks}
29/262	. . . {by electronic orientation or focusing, e.g. with phased arrays (phased arrays per se G10K 11/34)}	29/449	. . {Statistical methods not provided for in G01N 29/4409 , e.g. averaging, smoothing and interpolation}
29/265	. . . by moving the sensor relative to a stationary material	29/46	. . by spectral analysis, e.g. Fourier analysis {or wavelet analysis (spectral signal processing per se G06F 17/14)}
29/27	. . . by moving the material relative to a stationary sensor	29/48	. . by amplitude comparison
29/275	. . . by moving both the sensor and the material	29/50	. . using auto-correlation techniques or cross-correlation techniques
29/28	. . providing acoustic coupling {, e.g. water (impedance matching G10K 11/02)}	29/52	. . using inversion methods other than spectral analysis, e.g. conjugated gradient inversion
29/30	. . Arrangements for calibrating or comparing, e.g. with standard objects	30/00	Investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography (G01N 3/00 - G01N 29/00 take precedence; separation for the preparation or production of components B01D 15/00, B01D 53/02, B01D 53/14; solid sorbent compositions in general B01J 20/00; ion-exchange in general B01J 39/00 - B01J 49/00) {or field flow fractionation (for preparation or production of components B01D 21/00, B01D 43/00, B01D 45/00 or B03C)}
29/32	. . Arrangements for suppressing undesired influences, e.g. temperature or pressure variations, {compensating for signal noise}		NOTE
29/323	. . . {compensating for pressure or tension variations}		In this group, the following term is used with the meaning indicated:
29/326	. . . {compensating for temperature variations}		– "conditioning" refers to the adjustment or control of environmental parameters, e.g. temperature or pressure.
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}	30/0005	. {Field flow fractionation}
29/346	. . {with amplitude characteristics, e.g. modulated signal}	2030/001	. . {hydrodynamic fractionation, e.g. CHDF or HDC}
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)}	2030/0015	. . {characterised by driving force}
		2030/002	. . . {sedimentation or centrifugal FFF}
		2030/0025	. . . {cross flow FFF}
		2030/003	. . . . {Asymmetrical flow}
		2030/0035	. . . {electrical field}
		2030/004	. . {characterised by opposing force}

2030/0045	. . . {normal, i.e. diffusion or thermal FFF}	2030/207	. . . . . {with metering cavity, e.g. sample loop}
2030/005	. . . {steric FFF, i.e. diffusion negligible for larger particles; separation due to protrusion depth into carrier flow profile}	2030/208	. . . . . {with more than one cavity}
2030/0055	. . . {hyperlayer, i.e. different particle populations in hyperlayers elevated above wall}	30/22	. . . . in high pressure liquid systems
2030/006	. . . . {lift hyperlayer, i.e. hydrodynamic lift forces dominate steric effect}	30/24	. . . Automatic injection systems
2030/0065	. . . {Dielectric FFF, i.e. opposing forces dominate hydrodynamic lift forces and steric effects}	30/26	. . Conditioning of the fluid carrier; Flow patterns
2030/007	. . {programming of driving force (carrier programming G01N 30/02)}	30/28	. . . Control of physical parameters of the fluid carrier
2030/0075	. {Separation due to differential desorption}	2030/285	. . . . {electrically driven carrier}
2030/008	. . {Thermal desorption}	30/30	. . . . of temperature
2030/0085	. . {the desorption energy being adapted to sample, e.g. laser tuned to molecular bonds}	2030/3007	. . . . . {same temperature for whole column}
2030/009	. {Extraction}	2030/3015	. . . . . {temperature gradients along column}
2030/0095	. {Separation specially adapted for use outside laboratory, e.g. field sampling, portable equipments}	2030/3023	. . . . . {using cryogenic fluids}
30/02	. Column chromatography	2030/303	. . . . . {using peltier elements}
2030/022	. . {characterised by the kind of separation mechanism}	2030/3038	. . . . . {temperature control of column exit, e.g. of restrictors}
2030/025	. . . {Gas chromatography}	2030/3046	. . . . . {temperature control of column inlet}
2030/027	. . . {Liquid chromatography}	2030/3053	. . . . . {using resistive heating}
30/04	. . Preparation or injection of sample to be analysed	2030/3061	. . . . . {column or associated structural member used as heater}
2030/042	. . . {Standards}	2030/3069	. . . . . {electrical resistance used to determine control temperature}
2030/045	. . . . {internal}	2030/3076	. . . . . {using specially adapted T(t) profile}
2030/047	. . . . {external}	2030/3084	. . . . . {ovens}
30/06	. . . Preparation	2030/3092	. . . . . {Heat exchange between incoming and outgoing mobile phase}
2030/062	. . . . {extracting sample from raw material}	30/32	. . . . of pressure or speed (G01N 30/36 takes precedence)
2030/065	. . . . {using different phases to separate parts of sample}	2030/322	. . . . . {pulse dampers}
2030/067	. . . . {by reaction, e.g. derivatising the sample}	2030/324	. . . . . {speed, flow rate}
30/08	. . . . using an enricher	2030/326	. . . . . {pumps}
2030/085	. . . . . {using absorbing precolumn}	2030/328	. . . . . {valves, e.g. check valves of pumps}
30/10	. . . . using a splitter	30/34	. . . . of fluid composition, e.g. gradient (G01N 30/36 takes precedence)
30/12	. . . . by evaporation	2030/342	. . . . . {fluid composition fixed during analysis}
2030/121	. . . . . {cooling; cold traps}	2030/345	. . . . . {fluid electrical conductivity fixed during analysis}
2030/122	. . . . . {cryogenic focusing}	2030/347	. . . . . {mixers}
2030/123	. . . . . {using more than one trap}	30/36	. . . . in high pressure liquid systems
2030/125	. . . . . {pyrolysing}	30/38	. . . Flow patterns
2030/126	. . . . . {evaporating sample}	2030/381	. . . . {centrifugal chromatography}
2030/127	. . . . . {PTV evaporation}	2030/382	. . . . {flow switching in a single column}
2030/128	. . . . . {Thermal desorption analysis}	2030/383	. . . . . {by using auxiliary fluid}
30/14	. . . . by elimination of some components	2030/385	. . . . . {by switching valves}
2030/143	. . . . . {selective absorption}	2030/386	. . . . {Radial chromatography, i.e. with mobile phase traversing radially the stationary phase}
2030/146	. . . . . {using membranes}	2030/387	. . . . {Turbulent flow of mobile phase}
30/16	. . . Injection (G01N 30/24 takes precedence)	2030/388	. . . . {Elution in two different directions on one stationary phase}
2030/162	. . . . {electromigration}	30/40	. . . . using back flushing
2030/165	. . . . {retention gaps}	2030/402	. . . . . {purging a device}
2030/167	. . . . {on-column injection}	2030/405	. . . . . {re-concentrating or inverting previous separation}
30/18	. . . . using a septum or microsyringe	2030/407	. . . . . {carrying out another separation}
2030/185	. . . . . {specially adapted to seal the inlet}	30/42	. . . . using counter-current
30/20	. . . . using a sampling valve	30/44	. . . . using recycling of the fraction to be distributed
2030/201	. . . . . {multiport valves, i.e. having more than two ports}	2030/445	. . . . . {heart cut}
2030/202	. . . . . {rotary valves}	30/46	. . . . using more than one column (G01N 30/44 takes precedence)
2030/204	. . . . . {Linearly moving valves, e.g. sliding valves}	30/461	. . . . . {with serial coupling of separation columns}
2030/205	. . . . . {Diaphragm valves, e.g. deformed member closing the passage}		

30/462	. . . . . {with different eluents or with eluents in different states (G01N 30/463 takes precedence)}	30/6095	. . . {Micro-machined or nano-machined, e.g. micro- or nano-size}
30/463	. . . . . {for multidimensional chromatography}	NOTE	
30/465	. . . . . {with specially adapted interfaces between the columns}	Attention is drawn to the Notes following the titles of class B81 and subclass B81B relating to "micro-structural devices" and "micro-structural systems" and the Notes following the title of subclass B82B relating to "nano-structures"	
30/466	. . . . . {with separation columns in parallel}	30/62	. . Detectors specially adapted therefor
30/467	. . . . . {all columns being identical}	2030/621	. . . {signal-to-noise ratio}
30/468	. . . . . {involving switching between different column configurations}	2030/623	. . . . {by modulation of sample feed or detector response}
30/48	. . {Sorbent materials therefor}	2030/625	. . . . {by measuring reference material, e.g. carrier without sample}
30/482	. . . {Solid sorbents}	2030/626	. . . {calibration, baseline}
2030/484	. . . {Solid sorbents}	2030/628	. . . {Multiplexing, i.e. several columns sharing a single detector}
2030/486	. . . {gels}	30/64	. . . Electrical detectors
2030/488	. . . {liquid sorbents}	2030/642	. . . . {photoionisation detectors}
30/50	. . Conditioning of the sorbent material or stationary liquid	2030/645	. . . . {electrical conductivity detectors}
30/52	. . . Physical parameters	2030/647	. . . . {surface ionisation}
2030/521	. . . . {form}	30/66	. . . . Thermal conductivity detectors
2030/522	. . . . {pressure}	30/68	. . . . Flame ionisation detectors
2030/524	. . . . {structural properties}	2030/685	. . . . {flame photometry}
2030/525	. . . . . {surface properties, e.g. porosity}	30/70	. . . . Electron capture detectors
2030/527	. . . . . {sorbent material in form of a membrane}	30/72	. . . Mass spectrometers {(mass spectrometers per se H01J 49/00)}
2030/528	. . . . . {Monolithic sorbent material}	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)}
30/54	. . . . Temperature	30/7213	. . . . . {splitting of the gaseous effluent}
30/56	. . . Packing methods or coating methods	30/722	. . . . . {through a gas permeable barrier (membranes, porous layers)}
2030/562	. . . . {packing}	2030/7226	. . . . . {OWTC, short capillaries or transfer line used as column}
2030/565	. . . . . {slurry packing}	30/7233	. . . . . {interfaced to liquid or superfluid chromatograph (interfaces in general for introducing or extracting samples to be analysed with specially adapted mass spectrometer, see H01J 49/04)}
2030/567	. . . . {coating}	30/724	. . . . . {Nebulising, aerosol formation or ionisation (spraying or atomising in general B05B)}
30/58	. . . the sorbent moving as a whole	30/7246	. . . . . . {by pneumatic means}
2030/582	. . . . {micellar electrokinetic capillary chromatography [MECC]}	30/7253	. . . . . . {by thermal means, e.g. thermospray}
2030/585	. . . . . {Parallel current chromatography}	30/726	. . . . . . {by electrical or glow discharge}
2030/587	. . . . . {Continuous annular chromatography}	30/7266	. . . . . . {by electric field, e.g. electrospray}
30/60	. . Construction of the column	30/7273	. . . . . {Desolvation chambers}
30/6004	. . . {end pieces}	30/728	. . . . {Intermediate storage of effluent, including condensation on surface}
2030/6008	. . . . {capillary restrictors}	30/7286	. . . . . {the store moving as a whole, e.g. moving wire}
2030/6013	. . . . {interfaces to detectors}	30/7293	. . . . . {Velocity or momentum separators}
30/6017	. . . . {Fluid distributors}	30/74	. . . Optical detectors {(measurement of intensity, velocity, spectral content, polarisation, or phase of infra-red, visible or ultra-violet light G01J)}
30/6021	. . . . {Adjustable pistons}	2030/743	. . . . {FTIR}
30/6026	. . . . {Fluid seals}	2030/746	. . . . {detecting along the line of flow, e.g. axial}
30/603	. . . . {retaining the stationary phase, e.g. Frits}		
30/6034	. . . {joining multiple columns}		
30/6039	. . . . {in series}		
30/6043	. . . . {in parallel}		
30/6047	. . . {with supporting means; Holders}		
30/6052	. . . {body}		
2030/6056	. . . . {using semiconductor micromachining techniques}		
30/606	. . . . {with fluid access or exit ports}		
30/6065	. . . . {with varying cross section}		
30/6069	. . . . {with compartments or bed substructure}		
30/6073	. . . . {in open tubular form}		
30/6078	. . . . . {Capillaries}		
30/6082	. . . . {transparent to radiation}		
30/6086	. . . . {form designed to optimise dispersion}		
30/6091	. . . {Cartridges}		

30/76	. . . Acoustical detectors { (measurement of mechanical vibrations or ultrasonic, sonic or infrasonic waves G01H) }	30/8679	. . . . {Target compound analysis, i.e. whereby a limited number of peaks is analysed}
2030/765	. . . . {for measuring mechanical vibrations}	30/8682	. . . . {Group type analysis, e.g. of components having structural properties in common}
2030/77	. . . {detecting radioactive properties}	30/8686	. . . . {Fingerprinting, e.g. without prior knowledge of the sample components}
30/78	. . . using more than one detector	30/8689	. . . . {Peak purity of co-eluting compounds}
30/80	. . Fraction collectors	30/8693	. . . {Models, e.g. prediction of retention times, method development and validation}
30/82	. . . Automatic means therefor	30/8696	. . . {Details of Software}
30/84	. . Preparation of the fraction to be distributed	30/88	. . Integrated analysis systems specially adapted therefor, not covered by a single one of the groups G01N 30/04 - G01N 30/86 (signal analysis systems per se G06F , G06G)
2030/8405	. . . {using pyrolysis}	2030/8804	. . . {automated systems}
2030/8411	. . . {Intermediate storage of effluent, including condensation on surface}	2030/8809	. . . {analysis specially adapted for the sample}
2030/8417	. . . . {the store moving as a whole, e.g. moving wire}	2030/8813	. . . . {biological materials}
2030/8423	. . . {using permeable separator tubes}	2030/8818	. . . . . {involving amino acids}
2030/8429	. . . {adding modifying material}	2030/8822	. . . . . {involving blood}
2030/8435	. . . . {for chemical reaction}	2030/8827	. . . . . {involving nucleic acids}
2030/8441	. . . . {to modify physical properties}	2030/8831	. . . . . {involving peptides or proteins}
2030/8447	. . . {Nebulising, aerosol formation or ionisation}	2030/8836	. . . . . {involving saccharides}
2030/8452	. . . . {Generation of electrically charged aerosols or ions}	2030/884	. . . . {organic compounds}
2030/8458	. . . . . {of ions or clusters of individual ions}	2030/8845	. . . . . {involving halogenated organic compounds}
2030/8464	. . . . {Uncharged atoms or aerosols}	2030/885	. . . . . {involving polymers}
2030/847	. . . . {by pneumatic means}	2030/8854	. . . . . {involving hydrocarbons}
2030/8476	. . . . {by thermal means}	2030/8859	. . . . . {inorganic compounds}
2030/8482	. . . . {by electrical or glow discharge}	2030/8863	. . . . . {Fullerenes}
2030/8488	. . . . {by electric field}	2030/8868	. . . . {elemental analysis, e.g. isotope dilution analysis}
2030/8494	. . . . {Desolvation chambers}	2030/8872	. . . . . {impurities}
30/86	. . Signal analysis	2030/8877	. . . . . {optical isomers}
30/8603	. . . {with integration or differentiation}	2030/8881	. . . {Modular construction, specially adapted therefor}
30/8606	. . . . {Integration}	2030/8886	. . . {Analysis of industrial production processes}
30/861	. . . . {Differentiation}	2030/889	. . . {monitoring the quality of the stationary phase; column performance}
30/8613	. . . . {Dividing or multiplying by a constant}	2030/8895	. . . {Independent juxtaposition of embodiments; Reviews}
30/8617	. . . . {Filtering, e.g. Fourier filtering}	30/89	. Inverse chromatography
2030/862	. . . . {Other mathematical operations for data preprocessing}	30/90	. Plate chromatography, e.g. thin layer or paper chromatography
30/8624	. . . {Detection of slopes or peaks; baseline correction}	2030/903	. . {centrifugal chromatography}
30/8627	. . . . {Slopes}	2030/906	. . {pressurised fluid phase}
30/8631	. . . . {Peaks}	30/91	. . Application of the sample
30/8634	. . . . . {Peak quality criteria}	30/92	. . Construction of the plate
30/8637	. . . . . {Peak shape}	30/93	. . . Application of the sorbent layer
30/8641	. . . . {Baseline}	30/94	. . Development
30/8644	. . . . {Data segmentation, e.g. time windows}	2030/945	. . . {Application of reagents to undeveloped plate}
2030/8648	. . . . {Feature extraction not otherwise provided for}	30/95	. . Detectors specially adapted therefor; Signal analysis
30/8651	. . . {Recording, data acquisition, archiving and storage}	30/96	. . using ion-exchange (G01N 30/02 , G01N 30/90 take precedence)
30/8655	. . . . {Details of data formats}	2030/965	. . {suppressor columns}
30/8658	. . . {Optimising operation parameters}		
30/8662	. . . . {Expert systems; optimising a large number of parameters}		
30/8665	. . . {for calibrating the measuring apparatus}		
30/8668	. . . . {using retention times}		
30/8672	. . . . {not depending on an individual instrument, e.g. retention time indexes or calibration transfer}		
30/8675	. . . {Evaluation, i.e. decoding of the signal into analytical information (for analysis of specific compounds see also G01N 30/88 and subgroups of G01N 33/00 ; chemical libraries per se C40B)}		
		31/00	Investigating or analysing non-biological materials by the use of the chemical methods specified in the subgroup (testing the effectiveness or completeness of sterilisation procedures without using enzymes or microorganisms A61L 2/28; measuring or testing processes involving enzymes or micro-organisms C12Q 1/00); Apparatus specially adapted for such methods

31/002	. {Determining nitrogen by transformation into ammonia, e.g. KJELDAHL method}	33/0018	. . . . {by diluting a gas}
31/005	. {investigating the presence of an element by oxidation (G01N 31/12 takes precedence)}	2033/0019	. . . . {by preconcentration}
31/007	. . {by measuring the quantity of water resulting therefrom (G01N 31/12 takes precedence)}	33/0021	. . . . {involving the use of a carrier gas for transport to the sensor}
NOTE		33/0022	. . . {using a number of analysing channels}
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.		33/0024	. . . . {a chemical reaction taking place or a gas being eliminated in one or more channels}
31/02	. using precipitation ({ measuring deposition or liberation of materials from an electrolyte G01N 27/42 })	33/0026	. . . {use of an alternating circulation of another gas (calibrating gas analysers G01N 33/0006)}
31/10	. using catalysis	33/0027	. . . {concerning the detector}
31/12	. using combustion (G01N 25/20 takes precedence)	33/0029	. . . . {cleaning}
31/16	. using titration	33/0031	. . . . {comprising two or more sensors, e.g. a sensor array (electrochemical electrode arrays G01N 27/27)}
31/162	. . {Determining the equivalent point by means of a discontinuity}	33/0032	. . . . {using two or more different physical functioning modes}
31/164	. . . {by electrical or electrochemical means}	33/0034	. . . . . {comprising neural networks or related mathematical techniques}
31/166	. . {Continuous titration of flowing liquids}	33/0036	. . . . {Specially adapted to detect a particular component (all the other sub-groups of G01N 33/0004 take precedence)}
31/168	. . {Determining water content by using Karl Fischer reagent}	33/0037	. . . . . {for NO _x }
31/18	. . Burettes specially adapted for titration (burettes in general B01L 3/02)	33/0039	. . . . . {for O ₃ }
31/20	. using micro-analysis, e.g. drop reaction	33/004	. . . . . {for CO, CO ₂ }
31/22	. using chemical indicators (G01N 31/02 takes precedence)	33/0042	. . . . . {for SO ₂ , SO ₃ }
31/221	. . {for investigating pH value}	33/0044	. . . . . {for H ₂ S, sulfides}
31/222	. . {for investigating moisture content}	33/0045	. . . . . {for Hg}
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)}	33/0047	. . . . . {for organic compounds}
31/224	. . . {for investigating presence of dangerous gases}	33/0049	. . . . . {for halogenated organic compounds}
31/225	. . . {for oxygen, e.g. including dissolved oxygen}	33/005	. . . . . {for H ₂ }
31/226	. . {for investigating the degree of sterilisation}	33/0052	. . . . . {for gaseous halogens}
31/227	. . {for nitrates or nitrites}	33/0054	. . . . . {for ammonia}
31/228	. . {for peroxides}	33/0055	. . . . . {for radionuclides}
31/229	. . {for investigating time/temperature history}	33/0057	. . . . . {for warfare agents or explosives (properties of explosives G01N 33/227)}
33/00	Investigating or analysing materials by specific methods not covered by the preceding groups	33/0059	. . . . . {avoiding interference of a gas with the gas to be measured}
33/0001	. {by organoleptic means}	33/006	. . . . . {avoiding interference of water vapour with the gas to be measured}
2033/0003	. {Composite materials}	33/0062	. . . {concerning the measuring method, e.g. intermittent, or the display, e.g. digital}
33/0004	. {Gaseous mixtures, e.g. polluted air (gaseous biological material G01N 33/497 ; exhaust gas of internal combustion engines G01M 15/102)}	33/0063	. . . . {using a threshold to release an alarm or displaying means (alarm arrangements G08B , e.g. fire alarm actuated by the presence of smoke or gases G08B 17/10 , for other abnormal conditions G08B 21/00)}
33/0006	. . {Calibrating gas analysers}	33/0065	. . . . . {using more than one threshold}
33/0008	. . . {Details concerning storage of calibration data, e.g. in EEPROM}	33/0067	. . . . {by measuring the rate of variation of the concentration}
33/0009	. . {General constructional details of gas analysers, e.g. portable test equipment (G01N 1/22 takes precedence)}	2033/0068	. . . . {using a computer specifically programmed}
33/0011	. . . {Sample conditioning (in general G01N 1/28)}	33/007	. . . {Arrangements to check the analyser (calibrating G01N 33/0006)}
33/0013	. . . . {by a chemical reaction (G01N 33/0024 takes precedence)}	2033/0072	. . . . {by generating a test gas}
33/0014	. . . . {by eliminating a gas (G01N 33/0013 and G01N 33/0024 take precedence)}	33/0073	. . . {Control unit therefor}
33/0016	. . . . {by regulating a physical variable, e.g. pressure, temperature}	33/0075	. . . . {for multiple spatially distributed sensors, e.g. for environmental monitoring (transmission systems for measured values G08C)}
		2033/0077	. {testing material properties on individual granules or tablets}
		2033/0078	. {testing material properties on manufactured objects}
		2033/008	. . {sport articles (balls, skis, rackets)}

- 2033/0081 . . {containers; packages; bottles}
- 2033/0083 . . {vehicle parts}
- 2033/0085 . . . {wheels}
- 2033/0086 . . {clothes; hosiery}
- 2033/0088 . . {other articles}
- 2033/009 . . . {seals}
- 2033/0091 . {Powders}
- 2033/0093 . {radioactive materials}
- 2033/0095 . {Semiconductive materials}
- 2033/0096 . {testing material properties on thin layers or coatings}
- 33/0098 . {Plants or trees ([wood G01N 33/46](#))}
- 33/02 . food
- 33/025 . . {Fruits or vegetables}
- 33/03 . . edible oils or edible fats
- 33/04 . . dairy products
- 33/06 . . . Determining fat content, e.g. by butyrometer
- 33/08 . . eggs, e.g. by candling
- 33/085 . . . {by candling}
- 33/10 . . starch-containing substances, e.g. dough
- 2033/105 . . . {Pasta}
- 33/12 . . meat; fish
- 33/14 . . beverages
- 33/143 . . . {containing sugar}
- 33/146 . . . {containing alcohol}
- 33/15 . Medicinal preparations; {Physical properties thereof, e.g. dissolubility ([drug screening with animal cells G01N 33/5008](#), [drug screening with microorganisms C12Q 1/025](#))}
- 33/18 . Water {(treatment of water [C02F](#))}
- 33/1806 . . {biological or chemical oxygen demand (BOD or COD)}
- 33/1813 . . {specific cations in water, e.g. heavy metals ([electrochemical analysis G01N 27/26](#); [detection of ions by colorimetry G01N 31/22](#))}
- 33/182 . . {specific anions in water ([electrochemical analysis G01N 27/26](#); [detection of ions by colorimetry G01N 31/22](#))}
- 33/1826 . . {organic contamination in water}
- 33/1833 . . . {Oil in water ([water in oil G01N 33/2847](#))}
- 2033/184 . . . {herbicides, pesticides, fungicides, insecticides, or the like}
- 33/1846 . . . {Total carbon analysis}
- 33/1853 . . {hardness of water}
- 33/186 . . {using one or more living organisms, e.g. a fish}
- 33/1866 . . . {using micro-organisms ([G01N 33/1806 takes precedence](#))}
- 2033/1873 . . {ice or snow}
- 33/188 . . {Determining the state of nitrification ([biological treatment of water by aerobic or anaerobic processes for denitrification of water C02F 3/305](#))}
- 33/1886 . . {using probes, e.g. submersible probes, buoys}
- 33/1893 . . {using flow cells}
- 33/20 . metals
- 33/203 . . {for the presence of a volatilizable, e.g. gaseous component}
- 33/206 . . {in molten state, e.g. after local fusion}
- 33/22 . Fuels, explosives {(liquid hydrocarbons [G01N 33/28](#))}
- 33/222 . . {Solid fuels, e.g. coal}
- 33/225 . . {Gaseous fuels, e.g. natural gas}
- 33/227 . . {Explosives, e.g. combustive properties thereof ([detecting explosives in air G01N 33/0057](#))}
- 33/24 . earth materials ([G01N 33/42 takes precedence](#); {testing the nature of borehole walls, formation testing [E21B 49/00](#); investigation of foundation soil [in situ E02D 1/00](#); geophysics, e.g. prospecting [G01V](#)})
- 33/241 . . {for hydrocarbon content ([drilling mud G01N 33/2823](#); [drilling per se E21B](#); [prospecting G01V](#))}
- 2033/243 . . {for determining biological parameters concerning composting, biodegradability or bioavailability}
- 2033/245 . . {for agricultural purposes}
- 33/246 . . {for water content ([for control of watering A01G 25/167](#))}
- 2033/248 . . {related to manure as a biological product, i.e. excluding artificial fertilizers}
- 33/26 . oils; viscous liquids; paints; inks ([G01N 33/22 takes precedence](#))
- 33/28 . . Oils {, i.e. hydrocarbon liquids} ({gaseous fuels [G01N 33/225](#)}; edible oils or edible fats [G01N 33/03](#))
- 33/2805 . . . {investigating the resistance to heat or oxidation (to the weather, to corrosion, or to light [G01N 17/00](#))}
- 33/2811 . . . {by measuring cloud point or pour point of oils}
- 33/2817 . . . {using a test engine ([testing of engines G01M 15/00](#))}
- 33/2823 . . . {raw oil, drilling fluid or polyphasic mixtures ([hydrocarbon content of earth materials G01N 33/241](#); [prospecting G01V](#); [drilling per se E21B](#))}
- 33/2829 . . . {mixtures of fuels, e.g. determining the RON-number}
- 33/2835 . . . {specific substances contained in the oil or fuel}
- 33/2841 {gas in oil, e.g. hydrogen in insulating oil}
- 33/2847 {Water in oil ([basic sediment and water G01N 33/2823](#); [oil in water G01N 33/1833](#))}
- 33/2852 {alcohol/fuel mixtures}
- 33/2858 {metal particles}
- 33/2864 {lead content}
- 33/287 {Sulfur content}
- 33/2876 {Total acid number}
- 33/2882 {Markers ([marking of fuels C10L 1/003](#))}
- 33/2888 . . . {Lubricating oil characteristics, e.g. deterioration ([lubricating properties G01N 33/30](#))}
- 33/2894 . . . {for metal working or machining}
- 33/30 . . . for lubricating properties
- 33/32 . . paints; inks {(investigating resistance to the weather, to corrosion, to light [G01N 17/00](#))}
- 33/34 . paper
- 33/343 . . {paper pulp}
- 33/346 . . {paper sheets}
- 33/36 . textiles
- 33/362 . . {material before processing, e.g. bulk cotton or wool}
- 33/365 . . {filiform textiles, e.g. yarns ([for measuring diameter G01B](#))}
- 33/367 . . {Fabric or woven textiles ([optical analysis of moving sheets G01N 21/86](#))}

- 33/38 . concrete; ceramics; glass; bricks
- 33/381 . . {precious stones; pearls}
- 33/383 . . {Concrete, cement}
- 33/385 . . {Crystals}
- 33/386 . . {Glass}
- 33/388 . . {Ceramics}
- 33/40 . grinding-materials
- 33/42 . road-making materials ([G01N 33/38](#) takes precedence)
- 33/44 . resins; rubber; leather
- 33/442 . . {Resins, plastics}
- 33/445 . . {Rubber}
- 33/447 . . {Leather}
- 33/46 . wood
- 33/48 . biological material, e.g. blood, urine ([G01N 33/02](#) - [G01N 33/14](#), [G01N 33/26](#), [G01N 33/44](#), [G01N 33/46](#) take precedence; determining the germinating capacity of seeds [A01C 1/02](#); 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 nano-scale 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](#); medical informatics [G06F 19/30](#); transmission systems for measured values [G08C](#))}
- 33/49 Blood {(taking blood samples [A61B 5/15](#); chemical methods for determining blood cell populations [G01N 33/5094](#); chemical analysis of blood groups or blood types [G01N 33/80](#))}
- 33/4905 {Determining clotting time of blood (by chemical methods [G01N 33/86](#), [C12Q 1/54](#))}
- 33/491 {by separating the blood components ([G01N 15/05](#) takes precedence; test tubes [per se](#) [B01L 3/14](#))}
- 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 {(for evaluating respiratory organs [A61B 5/08](#))}
- 33/4972 {Determining alcohol content (for vehicle safety devices [B60K 28/06](#))}
- 2033/4975 {other than oxygen, carbon dioxide or alcohol, e.g. organic vapours}
- 2033/4977 {metabolic gass from microbes, cell cultures, plant tissues and the like}
- 33/50 . . Chemical analysis of biological material, e.g. blood, urine; Testing involving biospecific ligand binding methods; Immunological testing (measuring or testing processes involving enzymes or micro-organisms, compositions or test papers therefor; processes for forming such compositions, condition responsive control in microbiological or enzymological processes [C12Q](#))

NOTES

1. The expression "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 33/96](#), in the absence of an indication to the contrary, an invention is also classified in the last appropriate place.
3. Documents relating to new peptides or new DNA or its corresponding mRNA, encoding for the peptides, and their use in measuring or testing processes are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their use in diagnostics. However, if the investigating or analysing aspects are of interest, the documents are classified in this group

- 33/5002 . . . {Partitioning blood components}
- 33/5005 . . . {involving human or animal cells
(immunoassay [G01N 33/56966](#); immunoassays of protozoa [G01N 33/56905](#); protozoa in screening assays [C12Q 1/025](#))}
- 33/5008 {for testing or evaluating the effect of chemical or biological compounds, e.g. drugs, cosmetics}
- 33/5011 {for testing antineoplastic activity}
- 33/5014 {for testing toxicity}
- 33/5017 {for testing neoplastic activity}
- 33/502 {for testing non-proliferative effects}
- 33/5023 {on expression patterns}
- 33/5026 {on cell morphology}
- 33/5029 {on cell motility}
- 33/5032 {on intercellular interactions}
- 33/5035 {on sub-cellular localization}
- 33/5038 {involving detection of metabolites *per se*}
- 33/5041 {involving analysis of members of signalling pathways}
- 33/5044 {involving specific cell types}
- 33/5047 {Cells of the immune system}
- 33/505 {involving T-cells}
- 33/5052 {involving B-cells}
- 33/5055 {involving macrophages}
- 33/5058 {Neurological cells}
- 33/5061 {Muscle cells}
- 33/5064 {Endothelial cells}
- 33/5067 {Liver cells}
- 33/507 {Pancreatic cells}
- 33/5073 {Stem cells}
- 33/5076 {involving cell organelles, e.g. Golgi complex, endoplasmic reticulum}
- 33/5079 {Mitochondria}
- 33/5082 {Supracellular entities, e.g. tissue, organisms}
- 33/5085 {of invertebrates}
- 33/5088 {of vertebrates}
- 33/5091 {for testing the pathological state of an organism}
- 33/5094 {for blood cell populations (red blood cells [G01N 33/80](#))}
- 33/5097 . . . {involving plant cells (immunoassays of plant cells [G01N 33/56961](#); unicellular algae, photoplankton and photosynthetic bacteria in screening assays [C12Q 1/025](#))}
- 33/52 . . . Use of compounds or compositions for colorimetric, spectrophotometric or fluorometric investigation, e.g. use of reagent paper {and including single- and multilayer analytical elements (immunological elements [G01N 33/54386](#); involving labelled immunochemicals [G01N 33/58](#); for haemoglobin or occult blood [G01N 33/72](#))}
- 33/521 {Single-layer analytical elements}
- 33/523 {the element being adapted for a specific analyte}
- 33/525 {Multi-layer analytical elements}
- 33/526 {the element being adapted for a specific analyte}
- 33/528 {Atypical element structures, e.g. gloves, rods, tampons, toilet paper}
- 33/53 . . . Immunoassay; Biospecific binding assay (preparations containing antigens or antibodies for therapeutic purposes [A61K 39/00](#); haptens in general, *see* the relevant places in class [C07](#); proteins in general [C07K](#))
- 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}	33/56983	. . . . . {Viruses}
33/5438	. . . . . {Electrodes}	33/56988	. . . . . {AIDS or HTLV}
33/54386	. . . . . {Analytical elements}	33/56994	. . . . . {Herpetoviridae, e.g. cytomegalovirus, Epstein-Barr virus}
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}	33/571	. . . . . for venereal disease, e.g. syphilis, gonorrhoea {(herpes G01N 33/56994 ; chlamydia G01N 33/56927)}
33/544	. . . . . the carrier being organic	33/573	. . . . . for enzymes or isoenzymes
33/545	. . . . . Synthetic resin	33/5735	. . . . . {co-enzymes or co-factors, e.g. NAD, ATP}
33/546	. . . . . as water suspendable particles {(not used, see G01N 33/54313)}	33/574	. . . . . for cancer
33/547	. . . . . with antigen or antibody attached to the carrier via a bridging agent {(not used, see G01N 33/54353)}	NOTE	
33/548	. . . . . Carbohydrates, e.g. dextran	In this group:	
33/549	. . . . . with antigen or antibody entrapped within the carrier {(not used, see G01N 33/5436)}	– relevant features relating to a specifically defined cancer are only classified in groups G01N 33/57407 - G01N 33/57449	
33/551	. . . . . the carrier being inorganic	– relevant features describing cancer markers related to multiple forms of cancer are classified in groups G01N 33/57484 - G01N 33/57496	
33/552	. . . . . Glass or silica	2033/57403	. . . . . {of breast}
33/553	. . . . . Metal or metal coated	33/57407	. . . . . {Specifically defined cancers}
33/554	. . . . . the carrier being a biological cell or cell fragment, e.g. bacteria, yeast cells	33/57411	. . . . . {of cervix}
33/555	. . . . . Red blood cell	33/57415	. . . . . {of breast}
33/556	. . . . . Fixed or stabilised red blood cell	33/57419	. . . . . {of colon}
33/557	. . . . . using kinetic measurement, i.e. time rate of progress of an antigen-antibody interaction	33/57423	. . . . . {of lung}
33/558	. . . . . using diffusion or migration of antigen or antibody	33/57426	. . . . . {leukemia}
33/559	. . . . . through a gel, e.g. Ouchterlony technique	33/5743	. . . . . {of skin, melanoma}
33/561	. . . . . Immunoelectrophoresis	33/57434	. . . . . {of prostate}
33/563	. . . . . involving antibody fragments {(not used, see G01N 33/6857)}	33/57438	. . . . . {of liver, pancreas or kidney}
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}	33/57442	. . . . . {of the uterus and endometrial}
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}	33/57446	. . . . . {of stomach or intestine}
33/567	. . . . . utilising isolate of tissue or organ as binding agent	33/57449	. . . . . {of ovaries}
33/569	. . . . . for micro-organisms, e.g. protozoa, bacteria, viruses	2033/57453	. . . . . {of lung}
33/56905	. . . . . {Protozoa}	2033/57457	. . . . . {of skin}
33/56911	. . . . . {Bacteria}	2033/57461	. . . . . {of liver, pancreas or kidney}
33/56916	. . . . . {Enterobacteria, e.g. shigella, salmonella, klebsiella, serratia}	2033/57465	. . . . . {of stomach or intestine}
33/56922	. . . . . {Campylobacter}	33/57469	. . . . . {involving tumor associated glycolinkage, i.e. TAG}
33/56927	. . . . . {Chlamydia}	33/57473	. . . . . {involving carcinoembryonic antigen, i.e. CEA}
33/56933	. . . . . {Mycoplasma}	33/57476	. . . . . {involving oncofetal proteins}
33/56938	. . . . . {Staphylococcus}	33/5748	. . . . . {involving oncogenic proteins}
33/56944	. . . . . {Streptococcus}	33/57484	. . . . . {involving compounds serving as markers for tumor, cancer, neoplasia, e.g. cellular determinants, receptors, heat shock/stress proteins, A-protein, oligosaccharides, metabolites}
33/5695	. . . . . {Mycobacteria}	33/57488	. . . . . {involving compounds identifiable in body fluids}
33/56955	. . . . . {involved in periodontal diseases}	33/57492	. . . . . {involving compounds localized on the membrane of tumor or cancer cells}
33/56961	. . . . . {Plant cells or fungi}	33/57496	. . . . . {involving intracellular compounds}
33/56966	. . . . . {Animal cells}	33/576	. . . . . for hepatitis
33/56972	. . . . . {White blood cells}	33/5761	. . . . . {Hepatitis B}
33/56977	. . . . . {HLA or MHC typing}	33/5762	. . . . . {Hepatitis B core antigen}
		33/5764	. . . . . {Hepatitis B surface antigen}
		33/5765	. . . . . {Hepatitis delta antigen}
		33/5767	. . . . . {non-A, non-B hepatitis}
		33/5768	. . . . . {Hepatitis A}

- 33/577 involving monoclonal antibodies {binding reaction mechanisms characterised by the use of monoclonal antibodies; monoclonal antibodies per se are classified with their corresponding antigens; ([G01N 33/53](#) - [G01N 33/576](#) take precedence)}
- 33/579 involving limulus lysate
- NOTE**
- Groups [G01N 33/53](#) - [G01N 33/576](#) take precedence over groups [G01N 33/58](#) - [G01N 33/98](#)
- 33/58 involving labelled substances ([G01N 33/53](#) takes precedence; for testing [in vivo](#) [A61K 49/00](#))
- 33/581 {with enzyme label (including co-enzymes, co-factors, enzyme inhibitors or substrates)}
- 33/582 {with fluorescent label}
- 33/583 {with non-fluorescent dye label}
- 33/585 {with a particulate label, e.g. coloured latex}
- 33/586 {Liposomes, microcapsules or cells}
- 33/587 {Nanoparticles}
- 33/588 {with semiconductor nanocrystal label, e.g. quantum dots}
- 33/60 involving radioactive labelled substances ([tracers G21H 5/02](#))
- 33/62 involving urea
- 33/64 involving ketones
- 33/66 involving blood sugars, e.g. galactose
- 33/68 involving proteins, peptides or amino acids {([involving lipoproteins G01N 33/92](#))}
- 33/6803 {General methods of protein analysis not limited to specific proteins or families of proteins}
- 33/6806 {Determination of free amino acids}
- 33/6809 {involving fluorescent derivatizing reagents reacting non-specifically with all amino acids}
- 33/6812 {Assays for specific amino acids}
- 33/6815 {containing sulfur, e.g. cysteine, cystine, methionine, homocysteine}
- 33/6818 {Sequencing of polypeptides}
- 33/6821 {involving C-terminal degradation}
- 33/6824 {involving N-terminal degradation, e.g. Edman degradation}
- 33/6827 {Total protein determination, e.g. albumin in urine}
- 33/683 {involving metal ions}
- 33/6833 {Copper, e.g. Folin-, Lowry-, biuret methods}
- 33/6836 {Silver staining}
- 33/6839 {involving dyes, e.g. Coomassie blue, bromocresol green}
- 33/6842 {Proteomic analysis of subsets of protein mixtures with reduced complexity, e.g. membrane proteins, phosphoproteins, organelle proteins}
- 33/6845 {Methods of identifying protein-protein interactions in protein mixtures}
- 33/6848 {Methods of protein analysis involving mass spectrometry}
- 33/6851 {Methods of protein analysis involving laser desorption ionisation mass spectrometry}
- 33/6854 {Immunoglobulins}
- 33/6857 {Antibody fragments}
- 33/686 {Anti-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
- 33/92 involving lipids, e.g. cholesterol, {lipoproteins, or their receptors ([steroid hormones G01N 33/743](#))}
- 33/94 involving narcotics {or drugs or pharmaceuticals, neurotransmitters or associated receptors}
- 33/9406 {Neurotransmitters}
- 33/9413 {Dopamine}

- 33/942 {Serotonin, i.e. 5-hydroxy-tryptamine}
- 33/9426 {GABA, i.e. gamma-amino-butyrate}
- 33/9433 {(Nor)adrenaline}
- 33/944 {Acetylcholine}
- 33/9446 {Antibacterials}
- 33/9453 {Cardioregulators, e.g. antihypotensives, antiarrhythmics}
- 33/946 {CNS-stimulants, e.g. cocaine, amphetamines}
- 33/9466 {Antidepressants}
- 33/9473 {Anticonvulsants, e.g. phenobarbitol, phenytoin}
- 33/948 {Sedatives, e.g. cannabinoids, barbiturates (opiates [G01N 33/9486](#))}
- 33/9486 {Analgesics, e.g. opiates, aspirine}
- 33/9493 {Immunosuppressants}
- 33/96 involving blood or serum control standard
- 33/98 involving alcohol, e.g. ethanol in breath

NOTE

In groups [G01N 35/00](#) - [G01N 35/085](#), the indexing codes of [G01N](#) are added

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

- 35/00009 . . {provided with a sample supporting tape, e.g. with absorbent zones}
- 2035/00019 . . {cassette structures}
- 35/00029 . . {provided with flat sample substrates, e.g. slides ([G01N 35/028](#) takes precedence)}
- 2035/00039 . . {Transport arrangements specific to flat sample substrates, e.g. pusher blade}
- 2035/00049 {for loading/unloading a carousel}
- 2035/00059 {vacuum chucks}
- 35/00069 . . {whereby the sample substrate is of the bio-disk type, i.e. having the format of an optical disk}
- 2035/00079 . . {Evaporation covers for slides}
- 2035/00089 . . {Magazines}
- 2035/00099 . . {Characterised by type of test elements}
- 2035/00108 {Test strips, e.g. paper}
- 2035/00118 {for multiple tests}
- 2035/00128 {with pressing or squeezing devices}
- 2035/00138 {Slides}
- 2035/00148 {Test cards, e.g. Biomerieux or McDonnell multiwell test cards}
- 2035/00158 {Elements containing microarrays, i.e. "biochip"}
- 2035/00168 . . {Manufacturing or preparing test elements}
- 2035/00178 . . {Special arrangements of analysers}
- 2035/00188 . . {the analyte being in the solid state}
- 2035/00198 {Dissolution analysers}
- 2035/00207 . . {Handling bulk quantities of analyte}
- 2035/00217 {involving measurement of weight}
- 2035/00227 {Monitoring a process (online)}
- 2035/00237 . . {Handling micro-quantities of analyte, e.g. micro-valves, capillary networks}
- 2035/00247 {Microvalves}
- 2035/00257 {Capillary stop flow circuits}
- 2035/00267 {Melttable plugs}

- 2035/00277 . . {Special precautions to avoid contamination (e.g. enclosures, glove- boxes, sealed sample carriers, disposal of contaminated material)}
- 2035/00287 {movable lid/cover for sample or reaction tubes}
- 2035/00297 {Antistatic arrangements}
- 2035/00306 {Housings, cabinets, control panels (details)}
- 2035/00316 {Detecting door closure}
- 2035/00326 {Analysers with modular structure}
- 2035/00336 {Analysers adapted for operation in microgravity, i.e. spaceflight}
- 2035/00346 . . {Heating or cooling arrangements}
- 2035/00356 {Holding samples at elevated temperature (incubation)}
- 2035/00366 {Several different temperatures used}
- 2035/00376 {Conductive heating, e.g. heated plates}
- 2035/00386 {using fluid heat transfer medium}
- 2035/00396 {where the fluid is a liquid}
- 2035/00405 {Microwaves}
- 2035/00415 {Other radiation}
- 2035/00425 {Heating or cooling means associated with pipettes or the like, e.g. for supplying sample/reagent at given temperature}
- 2035/00435 {Refrigerated reagent storage}
- 2035/00445 {Other cooling arrangements}
- 2035/00455 {Controlling humidity in analyser}
- 2035/00465 . . {Separating and mixing arrangements}
- 2035/00475 {Filters}
- 2035/00485 {combined with sample carriers}
- 2035/00495 {Centrifuges}
- 2035/00504 {combined with carousels}
- 2035/00514 {Stationary mixing elements}
- 2035/00524 {Mixing by agitating sample carrier}
- 2035/00534 {Mixing by a special element, e.g. stirrer}
- 2035/00544 {using fluid flow}
- 2035/00554 {using ultrasound}
- 2035/00564 {Handling or washing solid phase elements, e.g. beads}
- 2035/00574 {Means for distributing beads}
- 35/00584 . . {Control arrangements for automatic analysers}
- 35/00594 {Quality control, including calibration or testing of components of the analyser}
- 35/00603 {Reinspection of samples}
- 35/00613 {Quality control}
- 35/00623 {of instruments}
- 2035/00633 {logging process history of individual samples}
- 2035/00643 {detecting malfunctions in conveying systems}
- 2035/00653 {statistical methods comparing labs or apparatuses}
- 35/00663 {of consumables}
- 2035/00673 {of reagents}
- 2035/00683 {of detectors}
- 35/00693 {Calibration}
- 2035/00702 {Curve-fitting; Parameter matching; Calibration constants}
- 35/00712 {Automatic status testing, e.g. at start-up or periodic}
- 35/00722 {Communications; Identification}
- 35/00732 {Identification of carriers, materials or components in automatic analysers}
- 2035/00742 {Type of codes}

2035/00752	. . . . .	{bar codes}	2035/0412	. . . . .	{Block or rack elements with a single row of samples}
2035/00762	. . . . .	{magnetic code}	2035/0413	. . . . .	{moving in one dimension}
2035/00772	. . . . .	{mechanical or optical code other than bar code}	2035/0415	. . . . .	{moving in two dimensions in a horizontal plane}
2035/00782	. . . . .	{reprogrammable code}	2035/0417	. . . . .	{forming an endless chain in a vertical plane}
2035/00792	. . . . .	{Type of components bearing the codes, other than sample carriers}	2035/0418	. . . . .	{Plate elements with several rows of samples}
2035/00801	. . . . .	{Holders for sample carriers, e.g. trays, carousel, racks}	2035/042	. . . . .	{moved independently, e.g. by fork manipulator}
2035/00811	. . . . .	{consumable or exchangeable components other than sample carriers, e.g. detectors, flow cells}	2035/0422	. . . . .	{carried on a linear conveyor}
2035/00821	. . . . .	{nature of coded information}	2035/0424	. . . . .	{Two or more linear conveyors}
2035/00831	. . . . .	{identification of the sample, e.g. patient identity, place of sampling}	2035/0425	. . . . .	{Stacks, magazines or elevators for plates}
2035/00841	. . . . .	{results of the analyses}	2035/0427	. . . . .	{nestable or stockable}
2035/00851	. . . . .	{process control parameters}	2035/0429	. . . . .	{Sample carriers adapted for special purposes}
2035/00861	. . . . .	{printing and sticking of identifiers}	2035/0431	. . . . .	{characterised by material of construction}
35/00871	. . .	{Communications between instruments or with remote terminals}	2035/0432	. . . . .	{integrated with measuring devices}
2035/00881	. . . . .	{network configurations}	2035/0434	. . . . .	{in the form of a syringe or pipette tip}
2035/00891	. . .	{Displaying information to the operator}	2035/0436	. . . . .	{with pre-packaged reagents, i.e. test-packs}
2035/009	. . . . .	{alarms, e.g. audible}	2035/0437	. . . . .	{Cleaning cuvettes or reaction vessels}
2035/0091	. . . . .	{GUI [graphical user interfaces]}	2035/0439	. . .	{Rotary sample carriers, i.e. carousels}
35/0092	. .	{Scheduling}	2035/0441	. . . . .	{for samples}
2035/0093	. . .	{random access not determined by physical position}	2035/0443	. . . . .	{for reagents}
2035/0094	. . .	{optimisation; experiment design}	2035/0444	. . . . .	{for cuvettes or reaction vessels}
35/0095	. . .	{introducing urgent samples with priority, e.g. Short Turn Around Time Samples [STATS]}	2035/0446	. . . . .	{Combinations of the above}
2035/0096	. . .	{post analysis management of samples, e.g. marking, removing, storing}	2035/0448	. . . . .	{composed of interchangeable ring elements}
2035/0097	. .	{monitoring reactions as a function of time}	2035/0449	. . . . .	{using centrifugal transport of liquid}
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)}	2035/0451	. . . . .	{composed of interchangeable sectors}
35/0099	. .	{comprising robots or similar manipulators (robots per se B25J)}	2035/0453	. . . . .	{Multiple carousels working in parallel}
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)}	2035/0455	. . . . .	{Coaxial carousels}
35/021	. .	{having a flexible chain, e.g. "cartridge belt", conveyor for reaction cells or cuvettes}	2035/0456	. . . . .	{Spiral tracks}
2035/023	. . .	{forming cuvettes <u>in situ</u> , e.g. from plastic strip}	2035/0458	. . . . .	{Multiple concentric rows of wells}
35/025	. .	{having a carousel or turntable for reaction cells or cuvettes}	2035/046	. . .	{General conveyor features}
35/026	. .	{having blocks or racks of reaction cells or cuvettes}	2035/0462	. . . . .	{Buffers [FIFO] or stacks [LIFO] for holding carriers between operations}
35/028	. .	{having reaction cells in the form of micro-titration plates}	2035/0463	. . . . .	{in incubators}
35/04	. .	Details of the conveyor system {(G01N 35/021 - G01N 35/028 take precedence)}	2035/0465	. . . . .	{Loading or unloading the conveyor}
2035/0401	. . .	{Sample carriers, cuvettes or reaction vessels}	2035/0467	. . . . .	{Switching points ("aiguillages")}
2035/0403	. . . . .	{Sample carriers with closing or sealing means}	2035/0468	. . . . .	{converging, e.g. selecting carriers from multiple incoming streams}
2035/0405	. . . . .	{manipulating closing or opening means, e.g. stoppers, screw caps, lids or covers}	2035/047	. . . . .	{diverging, e.g. sending carriers to different analysers}
2035/0406	. . . . .	{Individual bottles or tubes}	2035/0472	. . . . .	{for selective recirculation of carriers}
2035/0408	. . . . .	{connected in a flexible chain}	2035/0474	. . .	{Details of actuating means for conveyors or pipettes}
2035/041	. . . . .	{lifting items out of a rack for access}	2035/0475	. . . . .	{electric, e.g. stepper motor, solenoid}
			2035/0477	. . . . .	{Magnetic}
			2035/0479	. . . . .	{hydraulic or pneumatic}
			2035/0481	. . . . .	{Pneumatic tube conveyors; Tube mails; "Rohrpost"}
			2035/0482	. . . . .	{Transmission}
			2035/0484	. . . . .	{Belt or chain}
			2035/0486	. . . . .	{Gearing, cams}
			2035/0487	. . . . .	{Helix or lead screw}
			2035/0489	. . . . .	{Self-propelled units}
			2035/0491	. . . . .	{Position sensing, encoding; closed-loop control}
			2035/0493	. . . . .	{Locating samples; identifying different tube sizes}

2035/0494	. . . . . {Detecting or compensating positioning errors}	2035/1086	. . . . . {Cylindrical, e.g. variable angle}
2035/0496	. . . {Other details}	2035/1088	. . . . . {Coaxial with a carousel}
2035/0498	. . . . . {Drawers used as storage or dispensing means for vessels or cuvettes}	35/109	. . . {with two horizontal degrees of freedom}
35/08	. using a stream of discrete samples flowing along a tube system, e.g. flow injection analysis	2035/1093	. . . . . {Cylindrical, e.g. variable radius and angle}
35/085	. . {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)}
35/10	. Devices for transferring samples {or any liquids} to, in, or from, the analysis apparatus, e.g. suction devices, injection devices {(G01N 35/0099 takes precedence)}	35/1097	. . . {characterised by the valves (valves in general F16K)}
35/1002	. . {Reagent dispensers}	37/00	Details not covered by any other group of this subclass
35/1004	. . {Cleaning sample transfer devices}	37/005	. {Measurement methods not based on established scientific theories}
2035/1006	. . . {Rinsing only the inside of the tip}	2201/00	Features of devices classified in G01N 21/00
35/1009	. . {Characterised by arrangements for controlling the aspiration or dispense of liquids}	2201/02	. Mechanical
35/1011	. . . {Control of the position or alignment of the transfer device}	2201/021	. . Special mounting in general
2035/1013	. . . . . {Confirming presence of tip}	2201/0212	. . . Liquid borne; swimming apparatus
35/1016	. . . {Control of the volume dispensed or introduced}	2201/0214	. . . Airborne
2035/1018	. . . . . {Detecting inhomogeneities, e.g. foam, bubbles, clots}	2201/0216	. . . Vehicle borne
2035/102	. . . . . {Preventing or detecting loss of fluid by dripping}	2201/0218	. . . Submersible, submarine
2035/1023	. . . . . {using a valve in the tip or nozzle}	2201/022	. . Casings
2035/1025	. . . {Fluid level sensing}	2201/0221	. . . Portable; cableless; compact; hand-held
2035/1027	. . {General features of the devices}	2201/0222	. . . Pocket size
2035/103	. . . {using disposable tips}	2201/0224	. . . Pivoting casing
2035/1032	. . . {Dilution or aliquotting}	2201/0225	. . . Part of casing being slidable, telescopic
2035/1034	. . . {Transferring microquantities of liquid}	2201/0227	. . . Sealable enclosure
2035/1037	. . . . . {Using surface tension, e.g. pins or wires}	2201/0228	. . . Moulded parts
2035/1039	. . . . . {Micro-pipettes, e.g. microcapillary tubes}	2201/023	. . Controlling conditions in casing
2035/1041	. . . . . {Ink-jet like dispensers}	2201/0231	. . . Thermostating
2035/1044	. . . . . {Using pneumatic means}	2201/0233	. . . Gas purge
2035/1046	. . . . . {Levitated, suspended drops}	2201/0235	. . . . with gas filters in casing
2035/1048	. . . {using the transfer device for another function}	2201/0236	. . . Explosion proof
2035/1051	. . . . . {for transporting containers, e.g. retained by friction}	2201/0238	. . . Moisture monitoring or controlling
2035/1053	. . . . . {for separating part of the liquid, e.g. filters, extraction phase}	2201/024	. . Modular construction
2035/1055	. . . . . {for immobilising reagents, e.g. dried reagents}	2201/0245	. . . with insertable-removable part
2035/1058	. . . . . {for mixing}	2201/025	. . Mechanical control of operations
2035/106	. . . . . {by sucking and blowing}	2201/0253	. . . Switches mounted at the casing
2035/1062	. . . . . {for testing the liquid while it is in the transfer device}	2201/0256	. . . Sensor for insertion of sample, cuvette, test strip
35/1065	. . {Multiple transfer devices}	2201/04	. Batch operation; multisample devices
35/1067	. . . {for transfer to or from containers having different spacing}	2201/0407	. . with multiple optical units, e.g. one per sample
2035/1069	. . . . . {by adjusting the spacing between multiple probes of a single transferring head}	2201/0415	. . Carrusel, sequential
35/1072	. . . {with provision for selective pipetting of individual channels}	2201/0423	. . . with rotating optics
35/1074	. . . {arranged in a two-dimensional array}	2201/043	. . . . optics constituted by optical fibre multiplex selector
2035/1076	. . . {plurality or independently movable heads}	2201/0438	. . Linear motion, sequential
35/1079	. . {with means for piercing stoppers or septums}	2201/0446	. . Multicell plate, sequential
35/1081	. . {characterised by the means for relatively moving the transfer device and the containers in an horizontal plane (G01N 35/1011 takes precedence)}	2201/0453	. . Multicell sequential and multitest, e.g. multiwavelength
35/1083	. . . {with one horizontal degree of freedom}	2201/0461	. . Simultaneous, e.g. video imaging
		2201/0469	. . One cell, sequential, e.g. successive samples
		2201/0476	. . Keyboard controlled, e.g. for plural analysis at one sample, channel selection, coding
		2201/0484	. . Computer controlled
		2201/0492	. . Automatised microscope
		2201/06	. Illumination; Optics
		2201/061	. . Sources
		2201/06106	. . . Plural sources used for calibration
		2201/06113	. . . Coherent sources; lasers
		2201/0612	. . . . Laser diodes

2201/06126	. . .	Large diffuse sources	2201/0697	. . . .	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 homogenisation, 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	. . .	Homogenising elements	2201/103	. . . .	Scanning by mechanical motion of stage
2201/0632	. . . .	homogenising 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
2201/0691	. . .	Modulated (not pulsed supply)	2201/122	. . . .	Kinetic analysis; determining reaction rate
2201/0692	. . .	Regulated sources; stabilised supply	2201/1222	. . . .	Endpoint determination; reaction time determination
2201/0693	. . .	Battery powered circuitry	2201/1224	. . . .	Polymerisation
2201/0694	. . .	Microprocessor controlled supply	2201/1226	. . . .	Relaxation methods, e.g. temperature jump, field jump
2201/0695	. . .	Supply to maintain constant beam intensity	2201/1228	. . . .	Reading time being controlled, e.g. by microprocessor
2201/0696	. . .	Pulsed	2201/123	. . . .	Conversion circuit

2201/1232	. . .	Log representation, e.g. for low transmittance	2203/0025	. .	Shearing		
2201/1235	. . .	Measuring or displaying selectably absorbance or density	2203/0026	. .	Combination of several types of applied forces		
2201/1237	. . .	Measuring extrema	2203/0028	. . .	Rotation and bending		
2201/124	. .	Sensitivity	2203/003	.	Generation of the force		
2201/1241	. . .	Multirange	2203/0032	. .	using mechanical means		
2201/1242	. . .	Validating, e.g. range invalidation, suspending operation	2203/0033	. . .	Weight		
2201/1244	. . .	Ambient light detector, e.g. for invalidating	2203/0035	. . .	Spring		
2201/1245	. . .	Averaging several measurements	2203/0037	. . .	involving a rotating movement, e.g. gearing, cam, eccentric, or centrifuge effects		
2201/1247	. . .	Thresholding	2203/0039	. . .	Hammer or pendulum		
2201/1248	. . .	Validating from signal shape, slope, peak	2203/0041	. . .	Human or animal power		
2201/125	. .	Digital circuitry	2203/0042	. .	Pneumatic or hydraulic means		
2201/126	. .	Microprocessor processing	2203/0044	. . .	Pneumatic means		
2201/1263	. . .	Microprocessor is used as variant to separate part circuits	2203/0046	. . . .	Vacuum	
2201/1266	. . .	Interface card	2203/0048	. . .	Hydraulic means		
2201/127	. .	Calibration; base line adjustment; drift compensation	2203/005	. .	Electromagnetic means		
2201/12707	. . .	Pre-test of apparatus, e.g. dark test, sensor test	2203/0051	. . .	Piezoelectric means		
2201/12715	. . .	Zero adjustment, i.e. to verify calibration	2203/0053	. .	Cutting or drilling tools		
2201/12723	. . .	Self check capacity; automatic, periodic step of checking	2203/0055	. .	using mechanical waves, e.g. acoustic		
2201/1273	. . .	Check triggered by sensing conditions, e.g. ambient changes	2203/0057	. .	using stresses due to heating, e.g. conductive heating, radiative heating		
2201/12738	. . .	Selectively initiating check	2203/0058	.	Kind of property studied		
2201/12746	. . .	Calibration values determination	2203/006	. .	Crack, flaws, fracture or rupture		
2201/12753	. . . .	and storage	2203/0062	. . .	Crack or flaws	
2201/12761	. . . .	Precalibration, e.g. for a given series of reagents	2203/0064	. . . .	Initiation of crack
2201/12769	. . . .	and adjusting controls, e.g. zero and 100 %	2203/0066	. . . .	Propagation of crack
2201/12776	. . . .	Automatic scaling up	2203/0067	. . .	Fracture or rupture	
2201/12784	. . . .	Base line obtained from computation, histogram	2203/0069	. .	Fatigue, creep, strain-stress relations or elastic constants	
2201/12792	. . .	Compensating own radiation in apparatus	2203/0071	. . .	Creep		
2201/128	. .	Alternating sample and standard or reference part in one path	2203/0073	. . .	Fatigue		
2201/1281	. . .	Reflecting part, i.e. for autocollimation	2203/0075	. . .	Strain-stress relations or elastic constants		
2201/1283	. . .	Opaque part	2203/0076	. .	Hardness, compressibility or resistance to crushing		
2201/1285	. . .	Standard cuvette	2203/0078	. . .	using indentation		
2201/1286	. . . .	More than one cuvette	2203/008	. . . .	Residual indentation measurement
2201/1288	. . .	Calibration medium periodically inserted in one cell	2203/0082	. . . .	Indentation characteristics measured during load	
2201/129	. .	Using chemometrical methods	2203/0083	. . .	Rebound strike or reflected energy		
2201/1293	. . .	resolving multicomponent spectra	2203/0085	. . .	Compressibility		
2201/1296	. . .	using neural networks	2203/0087	. . .	Resistance to crushing		
2201/13	. .	Standards, constitution	2203/0089	. .	Biorheological properties		
2203/00	Investigating strength properties of solid materials by application of mechanical stress				2203/0091	. .	Peeling or tearing
2203/0001	. .	Type of application of the stress	2203/0092	. .	Visco-elasticity, solidification, curing, cross-linking degree, vulcanisation or strength properties of semi-solid materials		
2203/0003	. .	Steady	2203/0094	. . .	Visco-elasticity		
2203/0005	. .	Repeated or cyclic	2203/0096	. .	Fibre-matrix interaction in composites		
2203/0007	. . .	Low frequencies up to 100 Hz	2203/0098	. .	Tests specified by its name, e.g. Charpy, Brinell, Mullen		
2203/0008	. . .	High frequencies from 10 000 Hz	2203/02	. .	Details not specific for a particular testing method		
2203/001	. .	Impulsive	2203/0202	. .	Control of the test		
2203/0012	. .	Constant speed test	2203/0204	. . .	Safety arrangements, e.g. remote control, emergency stop		
2203/0014	. .	Type of force applied	2203/0206	. . .	Means for supplying or positioning specimens or exchangeable parts of the machine such as indenters...		
2203/0016	. . .	Tensile or compressive	2203/0208	. . .	Specific programs of loading, e.g. incremental loading or pre-loading		
2203/0017	. . . .	Tensile	2203/021	. . .	Treatment of the signal; Calibration	
2203/0019	. . .	Compressive	2203/0212	. . .	Theories, calculations		
2203/0021	. .	Torsional					
2203/0023	. .	Bending					

2203/0214	. . . .	Calculations a priori without experimental data	2203/0441	. . .	with dampers or shock absorbing means
2203/0216	. . . .	Finite elements	2203/0447	. . .	Holders for quick insertion/removal of test pieces
2203/0218	. . . .	Calculations based on experimental data	2203/0452	. . .	Cushioning layer between test piece and grip
2203/022	. .	Environment of the test	2203/0458	. . .	characterised by their material
2203/0222	. . .	Temperature	2203/0464	. . .	with provisions for testing more than one specimen at the time
2203/0224	. . . .	Thermal cycling	2203/047	. . . .	in series
2203/0226	. . . .	High temperature; Heating means	2203/0476	. . . .	in parallel
2203/0228	. . . .	Low temperature; Cooling means	2203/0482	. . .	comprising sensing means
2203/023	. . .	Pressure	2203/0488	. . . .	Diamond anvil cells
2203/0232	. . . .	High pressure	2203/0494	. . . .	Clamping ring, "whole periphery" clamping
2203/0234	. . . .	Low pressure; Vacuum	2203/06	. .	Indicating or recording means; Sensing means
2203/0236	. . .	Other environments	2203/0605	. . .	Mechanical indicating, recording or sensing means
2203/0238	. . . .	Inert	2203/0611	. . .	Hydraulic or pneumatic indicating, recording or sensing means
2203/024	. . . .	Corrosive	2203/0617	. . .	Electrical or magnetic indicating, recording or sensing means
2203/0242	. . . .	With circulation of a fluid	2203/0623	. . . .	using piezo-electric gauges
2203/0244	. . .	Tests performed "in situ" or after "in situ" use	2203/0629	. . . .	using thin films, paintings
2203/0246	. . . .	Special simulation of "in situ" conditions, scale models or dummies	2203/0635	. . . .	using magnetic properties
2203/0248	. . .	Tests "on-line" during fabrication	2203/0641	. . .	using optical, X-ray, ultra-violet, infrared or similar detectors
2203/025	. .	Geometry of the test	2203/0647	. . . .	Image analysis
2203/0252	. . .	Monoaxial, i.e. the forces being applied along a single axis of the specimen	2203/0652	. . . .	using contrasting ink, painting, staining
2203/0254	. . .	Biaxial, the forces being applied along two normal axes of the specimen	2203/0658	. . .	using acoustic or ultrasonic detectors
2203/0256	. . .	Triaxial, i.e. the forces being applied along three normal axes of the specimen	2203/0664	. . .	using witness specimens
2203/0258	. . .	Non axial, i.e. the forces not being applied along an axis of symmetry of the specimen	2203/067	. . .	Parameter measured for estimating the property
2203/026	. .	Specifications of the specimen	2203/0676	. . . .	Force, weight, load, energy, speed or acceleration
2203/0262	. . .	Shape of the specimen	2203/0682	. . . .	Spatial dimension, e.g. length, area, angle
2203/0264	. . . .	Beam	2203/0688	. . . .	Time or frequency
2203/0266	. . . .	Cylindrical specimens	2203/0694	. . . .	Temperature
2203/0268	. . . .	Dumb-bell specimens	2223/00		Investigating materials by wave or particle radiation
2203/027	. . . .	Specimens with holes or notches	2223/01	. .	by radioactivity, nuclear decay
2203/0272	. . . .	Cruciform specimens	2223/03	. .	by transmission
2203/0274	. . . .	Tubular or ring-shaped specimens	2223/04	. .	and measuring absorption
2203/0276	. . . .	Spherical specimens	2223/041	. . .	X-ray absorption fine structure [EXAFS]
2203/0278	. . . .	Thin specimens	2223/043	. . .	gamma ray resonance absorption (Mossbauer effect)
2203/028	. . . . .	One dimensional, e.g. filaments, wires, ropes or cables	2223/045	. .	combination of at least 2 measurements (transmission and scatter)
2203/0282	. . . . .	Two dimensional, e.g. tapes, webs, sheets, strips, disks or membranes	2223/05	. .	by diffraction, scatter or reflection
2203/0284	. . .	Bulk material, e.g. powders	2223/051	. .	correcting for scatter
2203/0286	. . .	Miniature specimen; Testing on micro-regions of a specimen	2223/052	. .	reflection
2203/0288	. . .	Springs	2223/053	. .	back scatter
2203/029	. . . .	Leaf spring	2223/054	. .	small angle scatter
2203/0292	. . . .	Coil spring	2223/055	. .	scatter raster collimator
2203/0294	. . . .	Airs-spring, air bag spring or bellows	2223/056	. .	diffraction
2203/0296	. . .	Welds	2223/0561	. . .	diffraction cameras
2203/0298	. . .	Manufacturing or preparing specimens	2223/0563	. . .	measure of energy-dispersion spectrum of diffracted radiation
2203/04	. .	Chucks, fixtures, jaws, holders or anvils	2223/0565	. . .	diffraction of electrons, e.g. LEED
2203/0405	. . .	Features allowing alignment between specimen and chucks	2223/0566	. . .	analysing diffraction pattern
2203/0411	. . .	using pneumatic or hydraulic pressure	2223/0568	. . .	spectro-diffractometry
2203/0417	. . .	using vacuum	2223/063	. .	inelastic scatter, e.g. Compton effect
2203/0423	. . .	using screws	2223/064	. .	interference of radiation, e.g. Borrmann effect
2203/0429	. . .	using adhesive bond; Gluing	2223/07	. .	secondary emission
2203/0435	. . .	modifying the type of the force applied, e.g. the chuck transforms a compressive machine for applying a bending test	2223/071	. .	combination of measurements, at least 1 secondary emission

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
2223/307	. . cuvettes-sample holders	2223/421	. . digitised image, analysed in real time (recognition algorithms)
2223/3075	. . . correcting for the properties of the container, e.g. empty	2223/422	. . windows within the image
2223/308	. . support of radiation source	2223/423	. . multispectral imaging-multiple energy imaging
2223/309	. . support of sample holder	2223/424	. . energy subtraction image processing (dual energy processing)
2223/31	. . temperature control		
2223/3103	. . . cooling, cryostats		

2223/425	. . temporal (time difference) subtraction processing	2223/639	. . material in a container
2223/426	. . image comparing, unknown with known substance	2223/64	. . multiple-sample chamber, multiplicity of materials
2223/427	. . stepped imaging (selected area of sample is changed)	2223/641	. . particle sizing
2223/50	. Detectors	2223/642	. . moving sheet, web
2223/501	. . array	2223/6425	. . . correcting for web flutter
2223/5015	. . . linear array	2223/643	. . object on conveyor
2223/502	. . ionisation chamber	2223/645	. . quality control
2223/503	. . auxiliary reference detector	2223/646	. . flaws, defects
2223/504	. . pin-diode	2223/6462	. . . microdefects
2223/505	. . scintillation	2223/6464	. . . radioactive substance into defect site
2223/5055	. . . scintillation crystal coupled to PMT	2223/6466	. . . flaws comparing to predetermined standards
2223/506	. . time-of-flight	2223/6468	. . . at different temperatures
2223/507	. . secondary-emission detector	2223/647	. . leak detection
2223/508	. . photo-acoustic	2223/648	. . voids
2223/509	. . infra-red	2223/649	. . porosity
2223/60	. Specific applications or type of materials	2223/65	. . cavitation pits
2223/601	. . density profile	2223/651	. . dust
2223/602	. . crystal growth	2223/652	. . impurities, foreign matter, trace amounts
2223/603	. . superlattices	2223/66	. . multiple steps inspection, e.g. coarse/fine
2223/604	. . monocrystal		
2223/605	. . phases	2291/00	Indexing codes associated with group G01N 29/00
2223/606	. . texture	2291/01	. Indexing codes associated with the measuring variable
2223/607	. . strain	2291/011	. . Velocity or travel time
2223/608	. . superconductors	2291/012	. . Phase angle
2223/61	. . thin films, coatings	2291/014	. . Resonance or resonant frequency
2223/611	. . patterned objects; electronic devices	2291/015	. . Attenuation, scattering
2223/6113	. . . printed circuit board [PCB]	2291/017	. . Doppler techniques
2223/6116	. . . semiconductor wafer	2291/018	. . Impedance
2223/612	. . biological material	2291/02	. Indexing codes associated with the analysed material
2223/6123	. . . bone mineral	2291/021	. . Gases
2223/6126	. . . tissue	2291/0212	. . . Binary gases
2223/613	. . moisture	2291/0215	. . . Mixtures of three or more gases, e.g. air
2223/614	. . road surface	2291/0217	. . . Smoke, combustion gases
2223/615	. . composite materials, multilayer laminates	2291/022	. . Liquids
2223/616	. . earth materials	2291/0222	. . . Binary liquids
2223/617	. . ash in coal	2291/0224	. . . Mixtures of three or more liquids
2223/618	. . food	2291/0226	. . . Oils, e.g. engine oils
2223/619	. . wood	2291/0228	. . . Aqueous liquids
2223/62	. . powders	2291/023	. . Solids
2223/621	. . tobacco	2291/0231	. . . Composite or layered materials
2223/622	. . paper	2291/0232	. . . Glass, ceramics, concrete or stone
2223/623	. . plastics	2291/0234	. . . Metals, e.g. steel
2223/624	. . steel, castings	2291/0235	. . . Plastics; polymers; soft materials, e.g. rubber
2223/625	. . nuclear fuels, laser imploded targets	2291/0237	. . . Thin materials, e.g. paper, membranes, thin films
2223/626	. . radioactive material	2291/0238	. . . Wood
2223/6265	. . . sample with radioactive tracer, tag, label	2291/024	. . Mixtures
2223/627	. . tyres	2291/02408	. . . Solids in gases, e.g. particle suspensions
2223/628	. . tubes, pipes	2291/02416	. . . Solids in liquids
2223/629	. . welds, bonds, sealing compounds	2291/02425	. . . Liquids in gases, e.g. sprays
2223/63	. . turbine blades	2291/02433	. . . Gases in liquids, e.g. bubbles, foams
2223/631	. . large structures, walls	2291/02441	. . . Liquids in porous solids
2223/632	. . residual life, life expectancy	2291/0245	. . . Gases in porous solids
2223/633	. . thickness, density, surface weight (unit area)	2291/02458	. . . Solids in solids, e.g. granules
2223/634	. . wear behaviour, roughness	2291/02466	. . . Biological material, e.g. blood
2223/635	. . fluids, granulates	2291/02475	. . . Tissue characterisation
2223/636	. . fluid sample with radioactive sources	2291/02483	. . . Other human or animal parts, e.g. bones
2223/637	. . liquid	2291/02491	. . . Materials with nonlinear acoustic properties
2223/638	. . gas	2291/025	. . Change of phase or condition

2291/0251	. . . Solidification, icing, curing composites, polymerisation	2291/2632	. . . flat
2291/0252	. . . Melting, molten solids	2291/2634	. . . cylindrical from outside
2291/0253	. . . Condensation	2291/2636	. . . cylindrical from inside
2291/0254	. . . Evaporation	2291/2638	. . . Complex surfaces
2291/0255	. . . (Bio)chemical reactions, e.g. on biosensors	2291/265	. . Spherical objects
2291/0256	. . . Adsorption, desorption, surface mass change, e.g. on biosensors	2291/267	. . Welds
2291/0257	. . . . with a layer containing at least one organic compound	2291/2672	. . . Spot welding
2291/0258	. . . Structural degradation, e.g. fatigue of composites, ageing of oils	2291/2675	. . . Seam, butt welding
2291/028	. . Material parameters	2291/2677	. . . Lapp welding
2291/02809	. . . Concentration of a compound, e.g. measured by a surface mass change	2291/269	. . Various geometry objects
2291/02818	. . . Density, viscosity	2291/2691	. . . Bolts, screws, heads
2291/02827	. . . Elastic parameters, strength or force	2291/2692	. . . Tyres
2291/02836	. . . Flow rate, liquid level	2291/2693	. . . Rotor or turbine parts
2291/02845	. . . Humidity, wetness	2291/2694	. . . Wings or other aircraft parts
2291/02854	. . . Length, thickness	2291/2695	. . . Bottles, containers
2291/02863	. . . Electric or magnetic parameters	2291/2696	. . . Wheels, Gears, Bearings
2291/02872	. . . Pressure	2291/2697	. . . Wafer or (micro)electronic parts
2291/02881	. . . Temperature	2291/2698	. . . Other discrete objects, e.g. bricks
2291/0289	. . . Internal structure, e.g. defects, grain size, texture		
2291/04	. Wave modes and trajectories	2333/00	Assays involving biological materials from specific organisms or of a specific nature
2291/042	. . Wave modes		NOTE
2291/0421	. . . Longitudinal waves		In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned according to the chemical nature of the materials irrespective of the source organism.
2291/0422	. . . Shear waves, transverse waves, horizontally polarised waves	2333/001	. by chemical synthesis
2291/0423	. . . Surface waves, e.g. Rayleigh waves, Love waves	2333/003	. . of Peptide-nucleic acids (PNAs)
2291/0425	. . . Parallel to the surface, e.g. creep waves	2333/005	. from viruses
2291/0426	. . . Bulk waves, e.g. quartz crystal microbalance, torsional waves	2333/01	. . DNA viruses
2291/0427	. . . Flexural waves, plate waves, e.g. Lamb waves, tuning fork, cantilever	2333/015	. . . Parvoviridae, e.g. feline panleukopenia virus, human Parvovirus
2291/0428	. . . Mode conversion	2333/02	. . . Hepadnaviridae, e.g. hepatitis B virus
2291/043	. . Complex trajectories	2333/025	. . . Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus
2291/044	. . Internal reflections (echoes), e.g. on walls or defects	2333/03	. . . Herpetoviridae, e.g. pseudorabies virus
2291/045	. . External reflections, e.g. on reflectors	2333/032	. . . . Pseudorabies virus, i.e. Aujeszky virus
2291/048	. . Transmission, i.e. analysed material between transmitter and receiver	2333/035	. . . . Herpes simplex virus I or II
2291/051	. . Perpendicular incidence, perpendicular propagation	2333/04	. . . . Varicella-zoster virus
2291/052	. . Perpendicular incidence, angular propagation	2333/045	. . . . . Cytomegalovirus
2291/055	. . Angular incidence, perpendicular propagation	2333/05	. . . . Epstein-Barr virus
2291/056	. . Angular incidence, angular propagation	2333/055	. . . . Marek's disease virus
2291/057	. . Angular incidence, parallel to surface propagation	2333/06	. . . . Infectious bovine rhinotracheitis virus
2291/10	. Number of transducers	2333/065	. . . Poxviridae, e.g. avipoxvirus
2291/101	. . one transducer	2333/07	. . . . Vaccinia virus; Variola virus
2291/102	. . one emitter, one receiver	2333/075	. . . Adenoviridae
2291/103	. . one emitter, two or more receivers	2333/08	. . RNA viruses
2291/104	. . two or more emitters, one receiver	2333/085	. . . Picornaviridae, e.g. coxsackie virus, echovirus, enterovirus
2291/105	. . two or more emitters, two or more receivers	2333/09	. . . . Foot-and-mouth disease virus
2291/106	. . one or more transducer arrays	2333/095	. . . . Rhinovirus
2291/26	. Scanned objects	2333/10	. . . . Hepatitis A virus
2291/262	. . Linear objects	2333/105	. . . . Poliovirus
2291/2623	. . . Rails; Railroads	2333/11	. . . Orthomyxoviridae, e.g. influenza virus
2291/2626	. . . Wires, bars, rods	2333/115	. . . Paramyxoviridae, e.g. parainfluenza virus
2291/263	. . Surfaces	2333/12	. . . . Mumps virus; Measles virus
		2333/125	. . . . Newcastle disease virus
		2333/13	. . . . Canine distemper virus
		2333/135	. . . . Respiratory syncytial virus
		2333/14	. . . Reoviridae, e.g. rotavirus, bluetongue virus, Colorado tick fever virus

2333/145	. . .	Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokda virus, vesicular stomatitis virus
2333/15	. . .	Retroviridae, e.g. bovine leukaemia virus, feline leukaemia virus, feline leukaemia virus, human T-cell leukaemia-lymphoma virus
2333/155	. . . .	Lentiviridae, e.g. visna-maedi virus, equine infectious virus, FIV, SIV
2333/16	. . . . .	HIV-1, HIV-2
2333/161	. . . . .	gag-pol, e.g. p55, p24/25, p17/18, p.7, p6, p66/68, p51/52, p31/34, p32, p40
2333/162	. . . . .	env, e.g. gp160, gp110/120, gp41, V3, peptid T, DC4-Binding site
2333/163	. . . . .	Regulatory proteins, e.g. tat, nef, rev, vif, vpu, vpr, vpt, vpx
2333/165	. . .	Coronaviridae, e.g. avian infectious bronchitis virus
2333/17	. . . .	Porcine transmissible gastroenteritis virus
2333/175	. . .	Bunyaviridae, e.g. California encephalitis virus, Rift valley fever virus, Hantaan virus
2333/18	. . .	Togaviridae; Flaviviridae
2333/181	. . . .	Alphaviruses or Group A arboviruses, e.g. sindbis, VEE, EEE, WEE or semliki forest virus (rubella virus G01N 2333/19)
2333/183	. . . .	Flaviviridae, e.g. pestivirus, mucosal disease virus, bovine viral diarrhoea virus, classical swine fever virus (hog cholera virus) or border disease virus
2333/185	. . . . .	Flaviviruses or Group B arboviruses, e.g. yellow fever virus, japanese encephalitis, tick-borne encephalitis, dengue
2333/186	. . . . .	Hepatitis C; Hepatitis NANB
2333/188	. . . . .	Hepatitis G; Hepatitis NANBNCNDNE
2333/19	. . . .	Rubella virus
2333/195	. . .	from bacteria
NOTE		
In groups G01N 2333/20 - G01N 2333/365 , where appropriate, after the bacteria terminology, the indication of the order (O), family (F) or genus (G) of the bacteria is given in brackets.		
2333/20	. . .	from Spirochaetales (O), e.g. Treponema, Leptospira
2333/205	. . .	from Campylobacter (G)
2333/21	. . .	from Pseudomonadaceae (F)
2333/212	. . .	Moraxellaceae, e.g. Acinetobacter, Moraxella, Oligella or Psychrobacter
2333/215	. . .	from Halobacteriaceae (F)
2333/22	. . .	from Neisseriaceae (F), e.g. Acinetobacter
2333/225	. . .	from Alcaligenes (G)
2333/23	. . .	from Brucella (G)
2333/235	. . .	from Bordetella (G)
2333/24	. . .	from Enterobacteriaceae (F), e.g. Citrobacter, Serratia, Proteus, Providencia, Morganella, Yersinia
2333/245	. . .	Escherichia (G)
2333/25	. . .	Shigella (G)
2333/255	. . .	Salmonella (G)
2333/26	. . .	Klebsiella (G)
2333/265	. . .	Enterobacter (G)
2333/27	. . .	Erwinia (G)
2333/275	. . .	Hafnia (G)
2333/28	. . .	from Vibrionaceae (F)
2333/285	. . .	from Pasteurellaceae (F), e.g. Haemophilus influenza
2333/29	. . .	from Richettsiales (o)
2333/295	. . .	from Chlamydiales (o)
2333/30	. . .	from Mycoplasmatales, e.g. Pleuropneumonia-like organisms [PPLO]
2333/305	. . .	from Micrococcaceae (F)
2333/31	. . .	from Staphylococcus (G)
2333/315	. . .	from Streptococcus (G), e.g. Enterococci
2333/3153	. . .	Streptokinase
2333/3156	. . .	from Streptococcus pneumoniae (Pneumococcus) (Streptokinase G01N 2333/3153)
2333/32	. . .	from Bacillus (G)
2333/325	. . .	Bacillus thuringiensis crystal protein (delta-endotoxin)
2333/33	. . .	from Clostridium (G)
2333/335	. . .	from Lactobacillus (G)
2333/34	. . .	from Corynebacterium (G)
2333/345	. . .	from Brevibacterium (G)
2333/35	. . .	from Mycobacteriaceae (F)
2333/355	. . .	from Nocardia (G)
2333/36	. . .	from Actinomyces; from Streptomyces (G)
2333/365	. . .	from Actinoplanes (G)
2333/37	. . .	from fungi
2333/375	. . .	from Basidiomycetes
2333/38	. . .	from Aspergillus
2333/385	. . .	from Penicillium
2333/39	. . .	from yeasts
2333/395	. . .	from Saccharomyces
2333/40	. . .	from Candida
2333/405	. . .	from algae
2333/41	. . .	from lichens
2333/415	. . .	from plants
2333/42	. . .	Lectins, e.g. concanavalin, phytohaemagglutinin
2333/425	. . .	Zeins
2333/43	. . .	Sweetening agents, e.g. thaumatin, monellin
2333/435	. . .	from animals; from humans
2333/43504	. . .	from invertebrates
2333/43508	. . .	from crustaceans
2333/43513	. . .	from arachnidae
2333/43517	. . . .	from spiders
2333/43521	. . . .	from scorpions
2333/43526	. . . .	from worms
2333/4353	. . . .	from nematodes
2333/43534	. . . . .	from Caenorhabditis
2333/43539	. . . . .	from cestodes
2333/43543	. . . . .	from Taenia
2333/43547	. . . . .	from trematodes
2333/43552	. . . .	from insects
2333/43556	. . . . .	from ticks
2333/4356	. . . . .	from wasps
2333/43565	. . . . .	from bees
2333/43569	. . . . .	from flies
2333/43573	. . . . .	from Drosophila
2333/43578	. . . . .	from silkworm
2333/43582	. . . . .	from mites
2333/43586	. . . . .	from fleas
2333/43591	. . . . .	from mosquitoes
2333/43595	. . . .	from coelenteratae, e.g. medusae
2333/44	. . .	from protozoa
2333/445	. . .	Plasmodium

2333/45	. . .	Toxoplasma	2333/4739	. . . . .	Cyclin; Prad 1
2333/455	. . .	Eimeria	2333/474	. . . . .	Pancreatic thread protein; Reg protein
2333/46	. .	from vertebrates	2333/4742	. . . . .	Keratin; Cytokeratin
2333/4603	. . .	from fish	2333/4743	. . . . .	Bactericidal/Permeability-increasing protein BPI
2333/4606	. . .	from amphibians	2333/4745	. . . . .	Insulin-like growth factor binding protein
2333/4609	. . .	from reptiles	2333/4746	. . . . .	Cancer-associated SCM-recognition factor, CRISPP
2333/4613	. . . .	Snake venom	2333/4748	. . . . .	p53
2333/4616	. . . . .	from Russell's viper	2333/475	. .	Assays involving growth factors
2333/462	. . . . .	from Agkistrodon sp., e.g. acutase, ACTE	2333/4753	. . .	Hepatocyte growth factor; Scatter factor; Tumor cytotoxic factor II
2333/4623	. . . . .	from Agkistrodon rhodostoma (Malayan pit viper); Arvin (R); Batroboxin; Ancrod	2333/4756	. . .	Neuregulins, i.e. p185erbB2 ligands, glial growth factor, heregulin, ARIA, neu differentiation factor
2333/4626	. . . . .	from Agkistrodon contortrix contortrix (copperhead snake); Protac (R)	2333/48	. . .	Nerve growth factor [NGF]
2333/463	. . . . .	from Croatalus adamanteus (Eastern Diamondback rattlesnake); Crotolese	2333/485	. . .	Epidermal growth factor [EGF] (urogastrone)
2333/4633	. . . . .	from Echis carinatus; Ecarin	2333/49	. . .	Platelet-derived growth factor [PDGF]
2333/4636	. . . . .	from Bothrops sp.	2333/495	. . .	Transforming growth factor [TGF]
2333/464	. . . . .	from Bothrops atrox; Reptilase; Atroxin	2333/50	. . .	Fibroblast growth factors [FGF]
2333/4643	. . . . .	from Bothrops jararaca; Botroctetin	2333/501	. . . .	acidic FGF [aFGF]
2333/4646	. . . . .	from Oxyuran(eo)us scutellatus (Taipan snake of Elapidae family)	2333/503	. . . .	basic FGF [bFGF]
2333/465	. . .	from birds	2333/505	. . .	Erythropoietin [EPO]
NOTE			2333/51	. . .	Bone morphogenetic factor; Osteogenins; Osteogenic factor; Bone-inducing factor
In groups G01N 2333/47 - G01N 2333/994 indexing codes are assigned irrespective to the source of the indicated proteins.			2333/515	. . .	Angiogenesis factors; Angiogenin
2333/47	. . .	Assays involving proteins of known structure or function as defined in the subgroups	2333/52	. .	Assays involving cytokines
2333/4701	. . . .	(not used)	2333/521	. . .	{Chemokines}
2333/4703	. . . . .	Regulators; Modulating activity	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
2333/4704	. . . . .	Inhibitors; Suppressors	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
2333/4706	. . . . .	stimulating, promoting or activating activity	2333/524	. . .	Thrombopoietin, i.e. C-MPL ligand
2333/4707	. . . . .	Guanosine triphosphatase activating protein, GAP	2333/525	. . .	Tumor necrosis factor [TNF]
2333/4709	. . . . .	Amyloid plaque core protein	2333/5255	. . . .	Lymphotoxin [LT]
2333/471	. . . . .	Pregnancy proteins, e.g. placenta proteins, alpha-feto-protein, pregnancy specific beta glycoprotein	2333/53	. . .	Colony-stimulating factor [CSF]
2333/4712	. . . . .	Muscle proteins, e.g. myosin, actin, protein	2333/535	. . . .	Granulocyte CSF; Granulocyte-macrophage CSF
2333/4713	. . . . .	Plasma globulins, lactoglobulin	2333/54	. . .	Interleukins [IL]
2333/4715	. . . . .	Cytokine-induced proteins	2333/5403	. . . .	IL-3
2333/4716	. . . . .	Complement proteins, e.g. anaphylatoxin, C3a, C5a	2333/5406	. . . .	IL-4
2333/4718	. . . . .	Lipocortins	2333/5409	. . . .	IL-5
2333/4719	. . . . .	G-proteins	2333/5412	. . . .	IL-6
2333/4721	. . . . .	Cationic antimicrobial peptides, e.g. defensins	2333/5415	. . . .	Leukaemia inhibitory factor [LIF]
2333/4722	. . . . .	Proteoglycans, e.g. aggrecan	2333/5418	. . . .	IL-7
2333/4724	. . . . .	Lectins	2333/5421	. . . .	IL-8
2333/4725	. . . . .	Mucins, e.g. human intestinal mucin	2333/5425	. . . .	IL-9
2333/4727	. . . . .	Calcium binding proteins, e.g. calmodulin	2333/5428	. . . .	IL-10
2333/4728	. . . . .	alpha-Glycoproteins	2333/5431	. . . .	IL-11
2333/473	. . . . .	Recognins, e.g. malignin	2333/5434	. . . .	IL-12
2333/4731	. . . . .	Casein	2333/5437	. . . .	IL-13
2333/4733	. . . . .	Acute pancreatitis-associated protein	2333/544	. . . .	IL-14
2333/4734	. . . . .	Villin	2333/5443	. . . .	IL-15
2333/4736	. . . . .	Retinoblastoma protein	2333/5446	. . . .	IL-16
2333/4737	. . . . .	C-reactive protein	2333/545	. . . .	IL-1
			2333/55	. . . .	IL-2
			2333/555	. . .	Interferons [IFN]
			2333/56	. . . .	IFN-alpha

2333/565	. . . . IFN-beta	2333/70535	. . . . Fc-receptors, e.g. CD16, CD32, CD64 (CD2314/705F)
2333/57	. . . . IFN-gamma	2333/70539	. . . . MHC-molecules, e.g. HLA-molecules
2333/575	. . Hormones (derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin G01N 2333/665 , corticotropin G01N 2333/695)	2333/70542	. . . . CD106
2333/5751	. . . Corticotropin releasing factor [CRF] (Urotensin)	2333/70546	. . . Integrin superfamily, e.g. VLAs, leuCAM, GPIIb/GPIIIa, LPAM
2333/5752	. . . Placental lactogen; Chorionic Somatomammotropin	2333/7055	. . . Integrin beta1-subunit-containing molecules, e.g. CD29, CD49
2333/5753	. . . Calcitonin gene related peptide	2333/70553	. . . Integrin beta2-subunit-containing molecules, e.g. CD11, CD18
2333/5754	. . . Endothelin, vasoactive intestinal contractor [VIC]	2333/70557	. . . Integrin beta3-subunit-containing molecules, e.g. CD41, CD51, CD61
2333/5755	. . . Neuropeptide Y	2333/7056	. . . Selectin superfamily, e.g. LAM-1, GlyCAM, ELAM-1, PADGEM
2333/5756	. . . Prolactin	2333/70564	. . . Selectins, e.g. CD62
2333/5757	. . . Vasoactive intestinal peptide [VIP] or related peptides	2333/70567	. . . Nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, nuclear orphan receptors
2333/5758	. . . Gastrin releasing peptide	2333/70571	. . . for neuromediators, e.g. serotonin receptor, dopamine receptor
2333/5759	. . . Thymosin or related peptides	2333/70575	. . . NGF/TNF-superfamily, e.g. CD70, CD95L, CD153 or CD154 (NGF G01N 2333/48 , TNF G01N 2333/525)
2333/58	. . . Atrial natriuretic factor complex; Atriopeptin; Atrial natriuretic peptide [ANP]; Brain natriuretic peptide [BNP, proBNP]; Cardionatrin; Cardiodilatin	2333/70578	. . . NGF-receptor/TNF-receptor superfamily, e.g. CD27, CD30 CD40 or CD95 (NGF-receptor G01N 2333/71 , TNF-receptor G01N 2333/7151)
2333/585	. . . Calcitonins	2333/70582	. . . CD71
2333/59	. . . Follicle-stimulating hormone [FSH]; Chorionic gonadotropins, e.g. HCG; Luteinising hormone [LH]; Thyroid-stimulating hormone [TSH]	2333/70585	. . . CD44
2333/595	. . . Gastrins; Cholecystokinins [CCK]	2333/70589	. . . CD45
2333/60	. . . Growth-hormone releasing factors (GH-RF) (Somatoliberin)	2333/70592	. . . CD52
2333/605	. . . Glucagons	2333/70596	. . . Molecules with a "CD"-designation not provided for elsewhere in G01N 2333/705
2333/61	. . . Growth hormones [GH] (Somatotropin)	2333/71	. . . for growth factors; for growth regulators
2333/62	. . . Insulins	2333/715	. . . for cytokines; for lymphokines; for interferons
2333/63	. . . Motilins	2333/7151	. . . for tumor necrosis factor [TNF]; for lymphotoxin [LT]
2333/635	. . . Parathyroid hormone (parathormone); Parathyroid hormone-related peptides	2333/7153	. . . or colony-stimulating factors [CSF]
2333/64	. . . Relaxins	2333/7155	. . . for interleukins [IL]
2333/645	. . . Secretins	2333/7156	. . . for interferons [IFN]
2333/65	. . . Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2	2333/7158	. . . for chemokines
2333/655	. . . Somatostatins	2333/72	. . . for hormones (for neuromediators G01N 2333/70571)
2333/66	. . . Thymopoiетins	2333/723	. . . Steroid/thyroid hormone superfamily, e.g. GR, EcR, androgen receptor, oestrogen receptor
2333/665	. . Assays involving proteins derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin	2333/726	. . . G protein coupled receptor, e.g. TSHR-thyrotropin-receptor, LH/hCG receptor, FSH
2333/67	. . . Lipotropins, e.g. beta, gamma lipotropin	2333/745	. . Assays involving non-enzymic blood coagulation factors
2333/675	. . . beta-Endorphins	2333/7452	. . . Thrombomodulin
2333/68	. . . Melanocyte-stimulating hormone [MSH]	2333/7454	. . . Tissue factor (tissue thromboplastin, Factor III)
2333/685	. . . alpha-Melanotropin	2333/7456	. . . Factor V
2333/69	. . . beta-Melanotropin	2333/7458	. . . Protein S
2333/695	. . . Corticotropin [ACTH]	2333/75	. . . Fibrin; Fibrinogen
2333/70	. . . Enkephalins	2333/755	. . . Factors VIII, e.g. factor VIII C [AHF], factor VIII Ag [VWF]
2333/705	. . Assays involving receptors, cell surface antigens or cell surface determinants	2333/76	. . Assays involving albumins other than in routine use for blocking surfaces or for anchoring haptens during immunisation
2333/70503	. . . Immunoglobulin superfamily, e.g. VCAMs, PECAM, LFA-3	2333/765	. . . Serum albumin, e.g. HSA
2333/70507	. . . C2D	2333/77	. . . Ovalbumin
2333/7051	. . . T-cell receptor (TcR)-CD3 complex	2333/775	. . . Apolipopptides
2333/70514	. . . CD4		
2333/70517	. . . CD8		
2333/70521	. . . CD28, CD152		
2333/70525	. . . ICAM molecules, e.g. CD50, CD54, CD102		
2333/70528	. . . CD58		
2333/70532	. . . B7 molecules, e.g. CD80, CD86		

2333/78	. .	Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]	2333/90241	. . .	acting on single donors with incorporation of molecular oxygen, i.e. oxygenases (1.13)
2333/785	. .	Alveolar surfactant peptides; Pulmonary surfactant peptides	2333/90245	. . .	acting on paired donors with incorporation of molecular oxygen (1.14)
2333/79	. .	Transferrins, e.g. lactoferrins, ovotransferrins	2333/90248	. . . .	with NADH or NADPH as one of the donors, and incorporation of one atom of oxygen 1.14.13
2333/795	. .	Porphyrin- or corrin-ring-containing peptides	2333/90251	. . . . .	with a definite EC number (1.14.13.-)
2333/80	. .	Cytochromes	2333/90254	. . . . .	Nitric-oxide synthase (NOS; 1.14.13.39)
2333/805	. .	Haemoglobins; Myoglobins	2333/90258	. . . .	with a reduced iron-sulfur protein as one donor (1.14.15) in general
2333/81	. .	Protease inhibitors	2333/90261	. . . . .	with a definite EC number (1.14.15.-)
2333/8103	. .	Exopeptidase (E.C. 3.4.11-19) inhibitors	2333/90264	. . . . .	Steroid 11 beta monooxygenase (P-450 protein)(1.14.15.4)
2333/8107	. .	Endopeptidase (E.C. 3.4.21-99) inhibitors	2333/90267	. . . . .	Cholesterol monooxygenase (cytochrome P 450 _{scc})(1.14.15.6)
2333/811	. . .	Serine protease (E.C. 3.4.21) inhibitors	2333/9027	. . . .	Miscellaneous (1.14.99) (not used)
2333/8114	. . . .	Kunitz type inhibitors	2333/90274	. . . . .	with a definite EC number (1.14.99.-) (not used)
2333/8117	. . . . .	Bovine/basic pancreatic trypsin inhibitor (BPTI, aprotinin)	2333/90277	. . . . .	Steroid 17 alpha-monooxygenase (1.14.99.9)
2333/8121	. . . .	Serpins	2333/9028	. . . . .	Steroid 21-monooxygenase (1.14.99.10)
2333/8125	. . . . .	Alpha-1-antitrypsin	2333/90283	. . .	acting on superoxide radicals as acceptor (1.15)
2333/8128	. . . . .	Antithrombin III	2333/90287	. . .	oxidising metal ions (1.16)
2333/8132	. . . . .	Plasminogen activator inhibitors	2333/9029	. . .	acting on -CH ₂ - groups (1.17)
2333/8135	. . . .	Kazal type inhibitors, e.g. pancreatic secretory inhibitor or ovomucoid	2333/90293	. . .	acting on reduced ferredoxin as donor (1.18)
2333/8139	. . .	Cysteine protease (E.C. 3.4.22) inhibitors, e.g. cystatin	2333/90296	. . .	acting on reduced flavodoxin as donor (1.19)
2333/8142	. . .	Aspartate protease (E.C. 3.4.23) inhibitors, e.g. HIV protease inhibitors	2333/904	. . .	acting on CHOH groups as donors, e.g. glucose oxidase, lactate dehydrogenase (1.1)
2333/8146	. . .	Metalloprotease (E.C. 3.4.24) inhibitors, e.g. tissue inhibitor of metallo proteinase, TIMP	2333/906	. . .	acting on nitrogen containing compounds as donors (1.4, 1.5, 1.7)
2333/815	. .	from leeches, e.g. hirudin, eglin	2333/90605	. . . .	acting on the CH-NH ₂ group of donors (1.4)
2333/82	. .	Translation products from oncogenes	2333/90611	. . . . .	with NAD or NADP as acceptor (1.4.1) in general
2333/825	. .	Metallothioneins	2333/90616	. . . . .	with a definite EC number (1.4.1.-)
2333/90	. .	Enzymes; Proenzymes	2333/90622	. . . . .	Phenylalanine dehydrogenase (1.4.1.20)
		NOTE	2333/90627	. . . . .	with a cytochrome as acceptor (1.4.2)
		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.	2333/90633	. . . . .	with oxygen as acceptor (1.4.3) in general
2333/9005	. .	Enzymes with nucleic acid structure; e.g. ribozymes	2333/90638	. . . . .	with a definite EC number (1.4.3.-)
2333/901	. .	Antibodies with enzymatic activity; e.g. abzymes	2333/90644	. . . . .	D-Amino acid oxidase (1.4.3.3)
2333/9015	. .	Ligases (6)	2333/9065	. . . .	acting on CH-NH groups of donors (1.5)
2333/902	. .	Oxidoreductases (1.)	2333/90655	. . . . .	with NAD or NADP as acceptor (1.5.1) in general
2333/90203	. . .	acting on the aldehyde or oxo group of donors (1.2)	2333/90661	. . . . .	with a definite EC number (1.5.1.-)
2333/90206	. . .	acting on the CH-CH group of donors (1.3)	2333/90666	. . . . .	Dihydrofolate reductase [DHFR] (1.5.1.3)
2333/90209	. . .	acting on NADH or NADPH (1.6), e.g. those with a heme protein as acceptor (1.6.2) (general), Cytochrome-b5 reductase (1.6.2.2) or NADPH-cytochrome P450 reductase (1.6.2.4)	2333/90672	. . . . .	with oxygen as acceptor (1.5.3) in general
2333/90212	. . .	acting on a sulfur group of donors (1.8)	2333/90677	. . . . .	with a definite EC number (1.5.3.-)
2333/90216	. . .	acting on a heme group of donors (1.9)	2333/90683	. . . . .	Sarcosine oxidase (1.5.3.1)
2333/90219	. . .	acting on diphenols and related substances as donors (1.10)	2333/90688	. . . .	acting on other nitrogen compounds as donors (1.7)
2333/90222	. . . .	with oxygen as acceptor (1.10.3) in general	2333/90694	. . . . .	with oxygen as acceptor (1.7.3), e.g. uricase (1.7.3.3)
2333/90225	. . . . .	with a definite EC number (1.10.3.-)	2333/908	. . .	acting on hydrogen peroxide as acceptor (1.11)
2333/90229	. . . . .	Catechol oxidase, i.e. Tyrosinase (1.10.3.1)	2333/91	. .	Transferases (2.)
2333/90232	. . . . .	Laccase (1.10.3.2)	2333/91005	. . .	transferring one-carbon groups (2.1)
2333/90235	. . . . .	Ascorbate oxidase (1.10.3.3)	2333/91011	. . . .	Methyltransferases (general) (2.1.1.)
2333/90238	. . .	acting on hydrogen as donor (1.12)	2333/91017	. . . . .	with definite EC number (2.1.1.-)
			2333/91022	. . . . .	Catecholmethyltransferases (2.1.1.6)
			2333/91028	. . . .	Hydroxymethyl-, formyl-transferases (2.1.2)
			2333/91034	. . . .	Carboxyl- and carbamoyl transferases (2.1.3)
			2333/9104	. . .	Aldehyde and ketone transferases (2.2)

2333/91045	. . . . .	Acyltransferases (2.3)	2333/91285	. . . . .	RNA uridyltransferases (2.7.7.52)
2333/91051	. . . . .	Acyltransferases other than aminoacyltransferases (general) (2.3.1)	2333/9129	. . . . .	Transferases for other substituted phosphate groups (2.7.8)
2333/91057	. . . . .	with definite EC number (2.3.1.-)	2333/91295	. . . . .	with paired acceptors (2.7.9)
2333/91062	. . . . .	Chloramphenicol-acetyltransferases (2.3.1.28)	2333/914	. . . . .	Hydrolases (3)
2333/91068	. . . . .	Chalcone synthases (2.3.1.74)	2333/916	. . . . .	acting on ester bonds (3.1), e.g. phosphatases (3.1.3), phospholipases C or phospholipases D (3.1.4)
2333/91074	. . . . .	Aminoacyltransferases (general) (2.3.2)	2333/918	. . . . .	Carboxylic ester hydrolases (3.1.1)
2333/9108	. . . . .	with definite EC number (2.3.2.-)	2333/92	. . . . .	Triglyceride splitting, e.g. by means of lipase
2333/91085	. . . . .	Transglutaminases; Factor XIIIq (2.3.2.13)	2333/922	. . . . .	Ribonucleases (RNAses); Deoxyribonucleases (DNAses)
2333/91091	. . . . .	Glycosyltransferases (2.4)	2333/924	. . . . .	acting on glycosyl compounds (3.2)
2333/91097	. . . . .	Hexosyltransferases (general) (2.4.1)	2333/926	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/91102	. . . . .	with definite EC number (2.4.1.-)	2333/928	. . . . .	acting on alpha -1, 4-glucosidic bonds, e.g. hyaluronidase, invertase, amylase
2333/91108	. . . . .	Levansucrases (2.4.1.10)	2333/93	. . . . .	Fungal source
2333/91114	. . . . .	Cellulose synthases (2.4.1.12)	2333/932	. . . . .	alpha-amylase from plant source
2333/9112	. . . . .	Sucrose synthases (2.4.1.13)	2333/934	. . . . .	Glucoamylase
2333/91125	. . . . .	Sucrose phosphate synthases (2.4.1.14)	2333/936	. . . . .	acting on beta-1, 4 bonds between N-acetylmuramic acid and 2-acetyl-amino 2-deoxy-D-glucose, e.g. lysozyme
2333/91131	. . . . .	Glucan branching enzymes (2.4.1.18)	2333/938	. . . . .	acting on beta-galactose-glycoside bonds, e.g. beta-galactosidase
2333/91137	. . . . .	Cyclomalto dextrin glucano transferases (2.4.1.19)	2333/94	. . . . .	acting on alpha-galactose-glycoside bonds, e.g. alpha-galactosidase
2333/91142	. . . . .	Pentosyltransferases (2.4.2)	2333/942	. . . . .	acting on beta-1, 4-glucosidic bonds, e.g. cellulase
2333/91148	. . . . .	transferring other glycosyl groups (2.4.99)	2333/944	. . . . .	acting on alpha-1, 6-glucosidic bonds, e.g. isoamylase, pullulanase
2333/91154	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/946	. . . . .	Dextranase
2333/9116	. . . . .	transferring alkyl or aryl groups other than methyl groups (2.5)	2333/948	. . . . .	acting on peptide bonds (3.4)
2333/91165	. . . . .	general (2.5.1)	2333/95	. . . . .	Proteinases, i.e. endopeptidases (3.4.21-3.4.99)
2333/91171	. . . . .	with definite EC number (2.5.1.-)	2333/9506	. . . . .	derived from viruses
2333/91177	. . . . .	Glutathione transferases (2.5.1.18)	2333/9513	. . . . .	derived from RNA viruses
2333/91182	. . . . .	Enolpyruvylshikimate-phosphate synthases (2.5.1.19)	2333/952	. . . . .	derived from bacteria
2333/91188	. . . . .	transferring nitrogenous groups (2.6)	2333/954	. . . . .	bacteria being Bacillus
2333/91194	. . . . .	transferring sulfur containing groups (2.8)	2333/956	. . . . .	Bacillus subtilis or Bacillus licheniformis
2333/912	. . . . .	transferring phosphorus containing groups, e.g. kinases (2.7)	2333/958	. . . . .	derived from fungi
2333/91205	. . . . .	Phosphotransferases in general	2333/96	. . . . .	from yeast
2333/9121	. . . . .	with an alcohol group as acceptor (2.7.1), e.g. general tyrosine, serine or threonine kinases	2333/962	. . . . .	from Aspergillus
2333/91215	. . . . .	with a definite EC number (2.7.1.-)	2333/964	. . . . .	derived from animal tissue
2333/9122	. . . . .	Thymidine kinase (2.7.1.21)	2333/96402	. . . . .	from non-mammals
2333/91225	. . . . .	with a carboxyl group as acceptor (2.7.2)	2333/96405	. . . . .	in general (not used)
2333/9123	. . . . .	with a nitrogenous group as acceptor (2.7.3), e.g. histidine kinases	2333/96408	. . . . .	with EC number (not used)
2333/91235	. . . . .	with a phosphate group as acceptor (2.7.4)	2333/96411	. . . . .	Serine endopeptidases (3.4.21)
2333/9124	. . . . .	Diphosphotransferases (2.7.6)	2333/96413	. . . . .	Cysteine endopeptidases (3.4.22)
2333/91245	. . . . .	Nucleotidyltransferases (2.7.7)	2333/96416	. . . . .	Aspartic endopeptidases (3.4.23)
2333/9125	. . . . .	with a definite EC number (2.7.7.-)	2333/96419	. . . . .	Metalloendopeptidases (3.4.24)
2333/91255	. . . . .	DNA-directed RNA polymerase (2.7.7.6)	2333/96422	. . . . .	from snakes
2333/9126	. . . . .	DNA-directed DNA polymerase (2.7.7.7)	2333/96425	. . . . .	from mammals
2333/91265	. . . . .	Polyribonucleotide nucleotidyl transferases, i.e. polynucleotide phosphorylase (2.7.7.8)	2333/96427	. . . . .	in general (not used)
2333/9127	. . . . .	DNA nucleotidyl-exotransferases, i.e. terminal nucleotidyl transferases (2.7.7.31)	2333/9643	. . . . .	with EC number (not used)
2333/91275	. . . . .	RNA-directed RNA polymerases, e.g. replicases (2.7.7.48)	2333/96433	. . . . .	Serine endopeptidases (3.4.21)
2333/9128	. . . . .	RNA-directed DNA polymerases, e.g. RT (2.7.7.49)	2333/96436	. . . . .	Granzymes
			2333/96438	. . . . .	Dibasic site splicing serine proteases, e.g. furin
			2333/96441	. . . . .	with definite EC number (not used)

2333/96444	Factor X (3.4.21.6)	2400/10	Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters
2333/96447	Factor VII (3.4.21.21)	2400/12	Homoglycans, i.e. polysaccharides having a main chain consisting of one single sugar
2333/9645	Factor IX (3.4.21.22)	2400/14	alpha-D-Glucans, i.e. having alpha 1,n (n=3,4,6) linkages between saccharide units, e.g. pullulan
2333/96452	Factor XI (3.4.21.27)	2400/16	Starch, amylose, amylopectin
2333/96455	Kallikrein (3.4.21.34; 3.4.21.35)	2400/18	Cyclodextrin
2333/96458	Factor XII (3.4.21.38)	2400/22	Dextran
2333/96461	Protein C (3.4.21.69)	2400/24	beta-D-Glucans, i.e. having beta 1,n (n=3,4,6) linkages between saccharide units, e.g. xanthan
2333/96463	Blood coagulation factors not provided for in a preceding group or according to more than one of the proceeding groups	2400/26	Cellulose
2333/96466	Cysteine endopeptidases (3.4.22)	2400/28	Chitin, chitosan
2333/96469	Interleukin 1-beta convertase-like enzymes	2400/32	Galactans, e.g. agar, agarose, agaropectin, carrageenan
2333/96472	Aspartic endopeptidases (3.4.23)	2400/34	alpha-D-Galacturonans, e.g. pectin
2333/96475	with definite EC number (not used)	2400/36	beta-D-Fructofuranans, e.g. levan, insulin
2333/96477	Pepsin (3.4.23.1; 3.4.23.2; 3.4.23.3)	2400/38	Heteroglycans, i.e. polysaccharides having more than one sugar residue in the main chain in either alternating or less regular sequence, e.g. gluco- or galactomannans, e.g. Konjac gum, Locust bean gum, Guar gum (proteoglycans G01N 2333/4722)
2333/9648	Chymosin, i.e. rennin (3.4.23.4)	2400/40	Glycosaminoglycans, i.e. GAG or mucopolysaccharides, e.g. chondroitin sulfate, dermatan sulfate, hyaluronic acid, heparin, heparan sulfate, and related sulfated polysaccharides
2333/96483	Renin (3.4.23.15)	2400/44	Gulurmannuronans, e.g. alginic acid
2333/96486	Metalloendopeptidases (3.4.24)	2400/46	Pectin
2333/96488	Phosphoramidon sensitive endothelin converting enzymes	2400/48	Reserve carbohydrates, e.g. glycogen
2333/96491	with definite EC number (not used)	2400/50	Lipopolysaccharides; LPS
2333/96494	Matrix metalloproteases, e.g. 3.4.24.7	2405/00	Assays, e.g. immunoassays or enzyme assays, involving lipids (lipopolysaccharides G01N 2400/50)
2333/96497	Enkephalinase (3.4.24.11)	2405/02	Triacylglycerols
2333/966	Elastase	2405/04	Phospholipids, i.e. phosphoglycerides
2333/968	Plasmin, i.e. fibrinolysin	2405/06	Glycophospholipids, e.g. phosphatidyl inositol
2333/972	Plasminogen activators	2405/08	Sphingolipids
2333/9723	Urokinase	2405/10	Glycosphingolipids, e.g. cerebrosides, gangliosides
2333/9726	Tissue plasminogen activator	2407/00	Assays, e.g. immunoassays or enzyme assays, involving terpenes
2333/974	Thrombin	2407/02	Taxol; Taxanes
2333/976	Trypsin; Chymotrypsin	2410/00	Assays, e.g. immunoassays or enzyme assays, involving peptides of less than 20 amino acids
2333/978	acting on carbon to nitrogen bonds other than peptide bonds (3.5)	2410/02	Angiotensins; Related peptides
2333/98	acting on amide bonds in linear amides (3.5.1)	2410/04	Oxytocins; Vasopressins; Related peptides
2333/982	Asparaginase	2410/06	Kallidins; Bradykinins; Related peptides
2333/984	Penicillin amidase	2410/08	Cyclosporins and related peptides
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)	2410/10	Valinomycins and derivatives thereof
2333/988	Lyases (4.), e.g. aldolases, heparinase, enolases, fumarase	2415/00	Assays, e.g. immunoassays or enzyme assays, involving penicillins or cephalosporins
2333/99	Isomerases (5.)	2430/00	Assays, e.g. immunoassays or enzyme assays, involving synthetic organic compounds as analytes
2333/992	Glucose isomerase; Xylose isomerase; Glucose-6-phosphate isomerase	2430/10	Insecticides
2333/994	Pancreatin	2430/12	Pyrethroids
2400/00	Assays, e.g. immunoassays or enzyme assays, involving carbohydrates	2430/20	Herbicides, e.g. DDT
2400/02	involving antibodies to sugar part of glycoproteins (lectins from plants G01N 2333/42 , lectins from mammals G01N 2333/4724)	2430/30	Polychlorinated biphenyls (PCBs)
		2430/40	Dioxins

- 2430/50 . Polyaromatic hydrocarbons (PAHs)
- 2430/60 . Synthetic polymers other than synthetic polypeptides as analytes
- 2440/00 Post-translational modifications [PTMs] in chemical analysis of biological material**
- 2440/10 . acylation, e.g. acetylation, formylation, lipoylation, myristoylation, palmitoylation
- 2440/12 . alkylation, e.g. methylation, (iso-)prenylation, farnesylation
- 2440/14 . phosphorylation
- 2440/16 . (de-)amidation
- 2440/18 . citrullination
- 2440/20 . formation of disulphide bridges
- 2440/22 . iodination
- 2440/24 . hydroxylation
- 2440/26 . nitrosylation
- 2440/28 . PEGylation
- 2440/30 . sulphation
- 2440/32 . biotinylation
- 2440/34 . addition of amino acid(s), e.g. arginylation, (poly-)glutamylolation, (poly-)glycylation
- 2440/36 . addition of addition of other proteins or peptides, e.g. SUMOylation, ubiquitination
- 2440/38 . addition of carbohydrates, e.g. glycosylation, glycation
- 2440/40 . addition of nucleotides or derivatives, e.g. adenylation, flavin attachment
- 2446/00 Magnetic particle immunoreagent carriers**
- 2446/10 . the magnetic material being used to coat a pre-existing polymer particle but not being present in the particle core
- 2446/20 . the magnetic material being present in the particle core
- 2446/30 . the magnetic material being dispersed in the polymer composition before their conversion into particulate form
- 2446/40 . the magnetic material being dispersed in the monomer composition prior to polymerisation
- 2446/60 . the magnetic material being dispersed in a medium other than the main solvent prior to incorporation into the polymer particle
- 2446/62 . . Magnetic material dispersed in water drop
- 2446/64 . . Magnetic material dispersed in oil drop
- 2446/66 . . Magnetic material dispersed in surfactant
- 2446/80 . characterised by the agent used to coat the magnetic particles, e.g. lipids
- 2446/84 . . Polymer coating, e.g. gelatin
- 2446/86 . . the coating being pre-functionalised for attaching immunoreagents, e.g. aminodextran
- 2446/90 . . characterised by small molecule linker used to couple immunoreagents to magnetic particles
- 2458/00 Labels used in chemical analysis of biological material**
- 2458/10 . Oligonucleotides as tagging agents for labelling antibodies
- 2458/15 . Non-radioactive isotope labels, e.g. for detection by mass spectrometry
- 2458/20 . Labels for detection by gas chromatography, e.g. haloaryl systems
- 2458/30 . Electrochemically active labels
- 2458/40 . Rare earth chelates
- 2469/00 Immunoassays for the detection of microorganisms**
- 2469/10 . Detection of antigens from microorganism in sample from host
- 2469/20 . Detection of antibodies in sample from host which are directed against antigens from microorganisms
- 2496/00 Reference solutions for assays of biological material**
- 2496/05 . containing blood cells or plasma
- 2496/10 . containing particles to mimic blood cells
- 2496/15 . containing dyes to mimic optical absorption of, e.g. hemoglobin
- 2496/25 . containing added polymers to stabilise biological material against degradation or maintain viscosity or density, e.g. gelatin, polyacrylamides, polyvinyl alcohol ([casein G01N 2333/4731](#), [albumins G01N 2333/76](#), [polysaccharides G01N 2400/10](#))
- 2496/30 . . Polyethylene glycol, e.g. PEG
- 2496/35 . . Polyvinylpyrrolidone, e.g. PVP
- 2496/45 . containing protease inhibitors, e.g. sulfonylfluorides, chloromethylketones, organophosphates ([peptide-based protease inhibitors G01N 2333/81](#))
- 2496/70 . Blood gas control solutions containing dissolved oxygen, bicarbonate and the like
- 2496/80 . Multi-analyte reference solutions containing cholesterol, glucose and the like
- 2500/00 Screening for compounds of potential therapeutic value**
- 2500/02 . Screening involving studying the effect of compounds C on the interaction between interacting molecules A and B (e.g. A = enzyme and B = substrate for A, or A = receptor and B = ligand for the receptor)
- 2500/04 . Screening involving studying the effect of compounds C directly on molecule A (e.g. C are potential ligands for a receptor A, or potential substrates for an enzyme A)
- 2500/10 . involving cells
- 2500/20 . cell-free systems
- 2510/00 Detection of programmed cell death, i.e. apoptosis**
- 2520/00 Use of whole organisms as detectors of pollution**
- 2550/00 Electrophoretic profiling, e.g. for proteome analysis**
- 2560/00 Chemical aspects of mass spectrometric analysis of biological material**
- NOTES**
1. Analysis of proteins, peptides or amino acids by mass spectrometry is classified in [G01N 33/6848](#) and [G01N 33/6851](#).
 2. Analysis of nucleic acids by mass spectrometry is classified in [C12Q 1/6872](#), [C12Q 2563/167](#) and [C12Q 2565/627](#).
- 2570/00 Omics, e.g. proteomics, glycomics or lipidomics; Methods of analysis focusing on the entire complement of classes of biological molecules or subsets thereof, i.e. focusing on proteomes, glycomes or lipidomes**
- 2600/00 Assays involving molecular imprinted polymers/ polymers created around a molecular template**

2610/00	Assays involving self-assembled monolayers [SAMs]	2800/162	. . Conjunctival disorders, e.g. conjunctivitis
2650/00	Assays involving polymers whose constituent monomers bore biological functional groups before polymerization, i.e. vinyl, acryl derivatives of amino acids, sugars	2800/164	. . Retinal disorders, e.g. retinopathy
2800/00	Detection or diagnosis of diseases	2800/166	. . Cataract
	NOTES	2800/168	. . Glaucoma
	1. The indexing codes	2800/18	. Dental and oral disorders
	G01N 2800/02 - G01N 2800/44 are based on The	2800/20	. Dermatological disorders
	Merck Manual of Diagnosis and Therapy (17th.	2800/202	. . Dermatitis
	Edition, Mark Beers and Robert Berkow).	2800/205	. . Scaling palmar diseases, e.g. psoriasis, pityriasis
	2. For diseases caused by micro-organism where	2800/207	. . Pigmentation disorders
	the microorganism is detected, which subject	2800/22	. Haematology
	matter is classified in G01N 33/569 and subgroups,	2800/222	. . Platelet disorders
	G01N 33/571 or G01N 33/576 , the present	2800/224	. . Haemostasis or coagulation
	indexing scheme is not used.	2800/226	. . Thrombotic disorders, i.e. thrombo-embolism
	3. For cancers, which subject matter is classified in		irrespective of location/organ involved, e.g. renal
	G01N 33/574 and subgroups, the present indexing	2800/228	. . Disorders of the spleen, e.g. splenic rupture,
	scheme is not used.		splenomegaly
	4. When indexing in the following scheme, the	2800/24	. Immunology or allergic disorders (SLE
	organ takes precedence, e.g. inflammation of the		G01N 2800/104)
	skin is indexed with dermatological disorders	2800/245	. . Transplantation related diseases, e.g. graft versus
	and not with immunology or allergic disorders,		host disease
	asthma with pulmonary disorders and not with	2800/26	. Infectious diseases, e.g. generalised sepsis
	immunology or allergic disorders. Exception		NOTE
	is made for thrombosis which is indexed with		Indexing code G01N 2800/26 is not used
	haematological disorders.		for documents already classified in one or
			more of groups G01N 33/569 and subgroups,
			G01N 33/571 or G01N 33/576 and subgroups
2800/02	. Nutritional disorders	2800/28	. Neurological disorders
2800/04	. Endocrine or metabolic disorders	2800/2807	. . Headache; Migraine
2800/042	. . Disorders of carbohydrate metabolism, e.g.	2800/2814	. . Dementia; Cognitive disorders
	diabetes, glucose metabolism	2800/2821	. . . Alzheimer
2800/044	. . Hyperlipemia or hypolipemia, e.g. dyslipidaemia,	2800/2828	. . . Prion diseases
	obesity	2800/2835	. . Movement disorders, e.g. Parkinson, Huntington,
2800/046	. . Thyroid disorders		Tourette
2800/048	. . Pituitary or hypothalamic - pituitary relationships,	2800/2842	. . Pain, e.g. neuropathic pain, psychogenic pain
	e.g. vasopressin or ADH related	2800/285	. . Demyelinating diseases; Multiple sclerosis
2800/06	. Gastro-intestinal diseases	2800/2857	. . Seizure disorders; Epilepsy
2800/062	. . Gastritis or peptic ulcer disease	2800/2864	. . Sleep disorders
2800/065	. . Bowel diseases, e.g. Crohn, ulcerative colitis, IBS	2800/2871	. . Cerebrovascular disorders, e.g. stroke, cerebral
2800/067	. . Pancreatitis or colitis		infarct, cerebral haemorrhage, transient ischemic
2800/08	. Hepato-biliary disorders other than hepatitis		event
2800/085	. . Liver diseases, e.g. portal hypertension, fibrosis,	2800/2878	. . Muscular dystrophy
	cirrhosis, bilirubin	2800/2885	. . . Duchenne dystrophy
2800/10	. Musculoskeletal or connective tissue disorders	2800/2892	. . . Myotonic dystrophy
2800/101	. . Diffuse connective tissue disease, e.g. Sjögren,	2800/30	. Psychoses; Psychiatry
	Wegener's granulomatosis	2800/301	. . Anxiety or phobic disorders
2800/102	. . . Arthritis; Rheumatoid arthritis, i.e.	2800/302	. . Schizophrenia
	inflammation of peripheral joints	2800/303	. . Eating disorders, e.g. anorexia, bulimia
2800/104	. . . Lupus erythematosus [SLE]	2800/304	. . Mood disorders, e.g. bipolar, depression
2800/105	. . Osteoarthritis, e.g. cartilage alteration,	2800/305	. . Attention deficit disorder; Hyperactivity
	hypertrophy of bone	2800/306	. . Chronic fatigue syndrome
2800/107	. . Crystal induced conditions; Gout	2800/307	. . Drug dependency, e.g. alcoholism
2800/108	. . Osteoporosis	2800/308	. . Psychosexual disorders, e.g. sexual arousal
2800/12	. Pulmonary diseases		disorder
2800/122	. . Chronic or obstructive airway disorders, e.g.	2800/32	. Cardiovascular disorders
	asthma COPD	2800/321	. . Arterial hypertension
2800/125	. . Adult respiratory distress syndrome	2800/322	. . Orthostatic hypertension or syncope
2800/127	. . Bronchitis	2800/323	. . Arteriosclerosis, Stenosis
2800/14	. Disorders of ear, nose or throat	2800/324	. . Coronary artery diseases, e.g. angina pectoris,
2800/16	. Ophthalmology		myocardial infarction

2800/325	. . Heart failure or cardiac arrest, e.g. cardiomyopathy, congestive heart failure	2800/7052	. . Fibrosis
2800/326	. . Arrhythmias, e.g. ventricular fibrillation, tachycardia, atrioventricular block, torsade de pointes	2800/7057	. . (Intracellular) signaling and trafficking pathways
2800/327	. . Endocarditis	2800/7061	. . . Endoplasmic reticulum to Golgi trafficking
2800/328	. . Vasculitis, i.e. inflammation of blood vessels	2800/7066	. . . Metabolic pathways
2800/329	. . Diseases of the aorta or its branches, e.g. aneurysms, aortic dissection	2800/7071	. . . . Carbohydrate metabolism, e.g. glycolysis, gluconeogenesis
2800/34	. Genitourinary disorders	2800/7076	. . . . Amino acid metabolism
2800/341	. . Urinary incontinence	2800/708	. . . . Nitrogen metabolism, e.g. urea cycle
2800/342	. . Prostate diseases, e.g. BPH, prostatitis	2800/7085	. . . . Lipogenesis or lipolysis, e.g. fatty acid metabolism
2800/344	. . Disorders of the penis and the scrotum and erectile dysfunction	2800/709	. . Toxin induced
2800/345	. . Urinary calculi	2800/7095	. . Inflammation
2800/347	. . Renal failures; Glomerular diseases; Tubulointerstitial diseases, e.g. nephritic syndrome, glomerulonephritis; Renovascular diseases, e.g. renal artery occlusion, nephropathy		
2800/348	. . Urinary tract infections		
2800/36	. Gynecology or obstetrics		
2800/361	. . Menstrual abnormalities or abnormal uterine bleeding, e.g. dysmenorrhea		
2800/362	. . Menopause		
2800/364	. . Endometriosis, i.e. non-malignant disorder in which functioning endometrial tissue is present outside the uterine cavity		
2800/365	. . Breast disorders, e.g. mastalgia, mastitis, Paget's disease		
2800/367	. . Infertility, e.g. sperm disorder, ovulatory dysfunction		
2800/368	. . Pregnancy complicated by disease or abnormalities of pregnancy, e.g. preeclampsia, preterm labour		
2800/38	. Pediatrics		
2800/382	. . Cystic fibrosis		
2800/385	. . Congenital anomalies		
2800/387	. . . Down syndrome; Trisomy 18; Trisomy 13		
2800/40	. Disorders due to exposure to physical agents, e.g. heat disorders, motion sickness, radiation injuries, altitude sickness, decompression illness		
2800/42	. Poisoning, e.g. from bites or stings		
2800/44	. Multiple drug resistance		
2800/50	. Determining the risk of developing a disease		
2800/52	. Predicting or monitoring the response to treatment; Prognosis		
2800/54	. Determining the risk of relapse		
2800/56	. Staging of a disease; Further complications associated with the disease		
2800/60	. Complex ways of combining multiple protein biomarkers for diagnosis		
2800/70	. Mechanisms involved in disease identification (G01N 2800/02 - G01N 2800/44 take precedence)		
2800/7004	. . Stress		
2800/7009	. . . Oxidative stress		
2800/7014	. . (Neo)vascularisation - Angiogenesis		
2800/7019	. . Ischaemia		
2800/7023	. . (Hyper)proliferation		
2800/7028	. . . Cancer		
2800/7033	. . Non-proliferative mechanisms		
2800/7038	. . Hypoxia		
2800/7042	. . Aging, e.g. cellular aging		
2800/7047	. . Fibrils-Filaments-Plaque formation		