EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1589

DATE: JANUARY 1, 2024

PROJECT RP12065

The following classification changes will be effected by this Notice of Changes:

Action	**Subclass**	**Group(s)**
SCHEME:		
Symbols Deleted:	G01N	2015/0065, 2015/0069, 2015/0073, 2015/0076, 2015/008, 2015/0084, 2015/0088, 2015/0693, 2015/1018, 2015/1025, 2015/1037, 2015/1043, 2015/105, 15/1056, 2015/1062, 2015/1068, 2015/1075, 2015/1081, 2015/1087, 2015/1093, 15/1209, 15/1218, 15/1227, 2015/1236, 15/1245, 2015/1254, 2015/1263, 2015/1272, 2015/1281, 2015/129, 2015/1409, 15/1463, 2015/1465, 15/1475, 2015/149
Symbols New:	G01N	15/01, 2015/011, 2015/012, 2015/014, 2015/016, 2015/018, 2015/019, 15/075, 2015/1014, 2015/1016, 2015/1019, 2015/1021, 2015/1022, 15/1023, 2015/1024, 2015/1026, 2015/1027, 2015/1028, 2015/1029, 2015/103, 15/13, 15/131, 15/132, 2015/133, 15/134, 2015/135, 2015/136, 2015/137, 2015/138, 2015/139, 15/1409, 15/1433, 15/149, 15/1492
Titles Changed:	G01N	15/00, 15/02, 15/0205, 15/0227, 15/06, 15/1031, 15/12, 15/14, 15/1404, 15/1429, 15/1434, 2015/1481
Indents Changed:	G01N	2015/0233, 15/12
Warnings New:	G01N	2015/1481, 15/1492
Notes Deleted:	G01N	15/1463
DEFINITIONS:		
Definitions Modified:	G01N	15/00, 15/02
Definitions New:	G01N	15/14

The following subclasses/groups are also impacted by this Notice of Changes (indicate subclasses/groups outside of the project scope, such as those listed in the CRL): G08B 21/00

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES

☒ A. New, Modified or Deleted Group(s)

- ☒ B. New, Modified or Deleted Warning(s)
- ☒ C. New, Modified or Deleted Note(s)
- ☐ D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS
   - ☒ A. New or Modified Definitions (Full definition template)
   - ☐ B. Modified or Deleted Definitions (Definitions Quick Fix)
3. ☒ REVISION CONCORDANCE LIST (RCL)
4. ☒ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. ☒ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

CPC NOTICE OF CHANGES 1589

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS G01N – INVESTIGATING OR ANALYSING MATERIALS BY DETERMINING THEIR CHEMICAL OR PHYSICAL PROPERTIES (measuring or testing processes other than immunoassay, involving enzymes or microorganisms C12M, C12Q)

Type *	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	G01N 15/00	0	Investigating characteristics of particles; Investigating permeability, pore-volume or surface-area of porous materials (identification of microorganisms C12Q)	
D	G01N 2015/0065	1	{biological, e.g. blood}	< administrative transfer to G01N 15/01>
D	G01N 2015/0069	2	{with lysing, e.g. of erythrocyts}	< administrative transfer to G01N 2015/011>
D	G01N 2015/0073	2	{Red blood cells}	< administrative transfer to G01N 2015/012>
D	G01N 2015/0076	3	{Reticulocytes}	< administrative transfer to G01N 2015/014>
D	G01N 2015/008	2	{White cells}	< administrative transfer to G01N 2015/016>
D	G01N 2015/0084	2	{Platelets}	< administrative transfer to G01N 2015/018>
D	G01N 2015/0088	2	{Biological contaminants; Fouling}	< administrative transfer to G01N 2015/019>
U	G01N 2015/0096	1	{Investigating consistence of powders, dustability, dustiness}	
N	G01N 15/01	1	specially adapted for biological cells, e.g. blood cells (investigating sedimentation of particle suspensions in blood G01N 15/05)	
N	G01N 2015/011	2	{with lysing, e.g. of erythrocytes}	
N	G01N 2015/012	2	{Red blood cells}	
N	G01N 2015/014	3	{Reticulocytes}	
N	G01N 2015/016	2	{White blood cells}	
N	G01N 2015/018	2	{Platelets}	
N	G01N 2015/019	2	{Biological contaminants; Fouling}	
M	G01N 15/02	1	Investigating particle size or size distribution (by measuring osmotic pressure G01N 7/10; investigating sedimentation of particle	

Type *	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
			suspensions G01N 15/04; investigating individual particles G01N 15/10)	
M	G01N 15/0205	2	by optical means	
M	G01N 15/0227	3	using imaging; using holography	
M	G01N 2015/0233	4	{using holography}	
M	G01N 15/06	1	Investigating concentration of particle suspensions (by weighing G01N 5/00; investigating sedimentation of particle suspensions G01N 15/04; investigating individual particles G01N 15/10)	
U	G01N 2015/0687	2	{in solutions, e.g. non volatile residue}	
D	G01N 2015/0693	2	{by optical means, e.g. by integrated nephelometry}	< administrative transfer to G01N 15/075>
N	G01N 15/075	2	by optical means	
U	G01N 15/10	1	Investigating individual particles	
U	G01N 15/1012	2	{Calibrating particle analysers; References therefor}	
N	G01N 2015/1014	3	{Constitution of reference particles}	
N	G01N 2015/1016	3	{Particle flow simulating, e.g. liquid crystal cell}	
D	G01N 2015/1018	3	{Constitution of reference particles}	< administrative transfer to G01N 2015/1014>
D	G01N 2015/1025	3	{Particle flow simulating, e.g. liquid crystal cell}	< administrative transfer to G01N 2015/1016>
N	G01N 2015/1019	2	{Associating Coulter-counter and optical flow cytometer [OFC]}	
N	G01N 2015/1021	2	{Measuring mass of individual particles}	
N	G01N 2015/1022	2	{Measurement of deformation of individual particles by non-optical means}	
N	G01N 15/1023	2	{Microstructural devices for non-optical measurement}	
N	G01N 2015/1024	2	{Counting particles by non-optical means}	
N	G01N 2015/1026	2	{Recognising analyser failures, e.g. bubbles; Quality control for particle analysers}	
N	G01N 2015/1027	2	{Determining speed or velocity of a particle}	

Type *	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	G01N 2015/1028	2	{Sorting particles}	
N	G01N 2015/1029	2	{Particle size}	
N	G01N 2015/103	2	{Particle shape}	
M	G01N 15/1031	2	by measuring electrical or magnetic effects	
D	G01N 2015/1037	2	{Associating coulter-counter and optical flow cytometer [OFC]}	< administrative transfer to G01N 2015/1019>
D	G01N 2015/1043	2	{Measuring mass of individual particles}	< administrative transfer to G01N 2015/1021>
D	G01N 2015/105	2	{Other than optical measurement of deformation of individual particles (optical measurement G01N 2015/1495)}	< administrative transfer to G01N 2015/1022>
D	G01N 15/1056	2	{Microstructural devices for other than electro-optical measurement (for electro-optical measurement G01N 15/1484)}	< administrative transfer to G01N 15/1023>
D	G01N 2015/1062	2	{counting the particles by other than electro-optical means (by electro-optical means G01N 2015/1486)}	< administrative transfer to G01N 2015/1024>
D	G01N 2015/1068	2	{Recognizing failure of the analyser, e.g. bubbles; Quality control for particle analysers}	< administrative transfer to G01N 2015/1026>
D	G01N 2015/1075	2	{Determining speed or velocity of a particle}	< administrative transfer to G01N 2015/1027>
D	G01N 2015/1081	2	{Sorting the particles}	< administrative transfer to G01N 2015/1028>
D	G01N 2015/1087	2	{Particle size}	< administrative transfer to G01N 2015/1029>
D	G01N 2015/1093	2	{Particle shape}	< administrative transfer to G01N 2015/103>
M	G01N 15/12	3	by observing changes in resistance or impedance across apertures when traversed by individual particles, e.g. by using the Coulter principle	
D	G01N 15/1209	3	{Details}	< administrative transfer to G01N 15/131>
D	G01N 15/1218	4	{concerning the aperture}	< administrative transfer to G01N 15/13>
D	G01N 15/1227	4	{Circuits}	< administrative transfer to G01N 15/132>
D	G01N 2015/1236	4	{Flow forming}	< administrative transfer to G01N 2015/133>

Type *	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
D	G01N 15/1245	3	{Devices using more than one aperture}	< administrative transfer to G01N 15/134>
D	G01N 2015/1254	3	{Electrodes}	< administrative transfer to G01N 2015/135>
D	G01N 2015/1263	4	{Scanning electrodes}	< administrative transfer to G01N 2015/136>
D	G01N 2015/1272	3	{Cleaning}	< administrative transfer to G01N 2015/137>
D	G01N 2015/1281	3	{Detecting blocking debris}	< administrative transfer to G01N 2015/138>
D	G01N 2015/129	3	{measuring the ratio of AC/DC impedances}	< administrative transfer to G01N 2015/139>
N	G01N 15/13	4	Details pertaining to apertures	
N	G01N 15/131	4	{Details (G01N 15/13 takes precedence)}	
N	G01N 15/132	5	{Circuits}	
N	G01N 2015/133	5	{Flow forming}	
N	G01N 15/134	4	{Devices using two or more apertures}	
N	G01N 2015/135	4	{Electrodes}	
N	G01N 2015/136	5	{Scanning electrodes}	
N	G01N 2015/137	4	{Cleaning}	
N	G01N 2015/138	4	{Detecting blocking debris}	
N	G01N 2015/139	4	{Measuring the ratio of AC/DC impedances}	
M	G01N 15/14	2	Optical investigation techniques, e.g. flow cytometry	
M	G01N 15/1404	3	Handling flow, e.g. hydrodynamic focusing	
D	G01N 2015/1409	4	{Control of supply of sheaths fluid, e.g. sample injection control}	<administrative transfer to G01N 15/1409>
N	G01N 15/1409	4	Handling samples, e.g. injecting samples	
U	G01N 2015/1411	5	{Features of sheath fluids}	
M	G01N 15/1429	3	Signal processing	
U	G01N 15/1431	4	{the electronics being integrated with the analyser, e.g. hand-held devices for on-site investigation}	
N	G01N 15/1433	4	using image recognition	
M	G01N 15/1434	3	Optical arrangements	
D	G01N 15/1463	4	{using image analysis for extracting features of the particle}	< administrative transfer to G01N 15/1433>
D	G01N 2015/1465	5	{image analysis on colour image}	< administrative transfer to G01N 15/1433>
D	G01N 15/1475	4	{using image analysis for extracting features of the particle}	< administrative transfer to G01N 15/1433>

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Type *	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
C	G01N 2015/1481	3	{Optical analysis of particles within droplets (sorting particles within droplets G01N 15/1492)}	G01N2015/1481, G01N 15/1492
D	G01N 2015/149	3	{Sorting the particles}	<administrative transfer to G01N 15/149>
N	G01N 15/149	3	specially adapted for sorting particles, e.g. by their size or optical properties	
N	G01N 15/1492	4	within droplets	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required "anchor" symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- "Transferred to" column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("Transferred to") symbol, however it is required to specify "<no transfer>" in the "Transferred to" column for such cases.
- For finalisation projects, the deleted "F" symbols should have <no transfer> in the "Transferred to" column.
- For more details about the types of scheme change, see CPC Guide.

B. New, Modified or Deleted Warning(s)

SUBCLASS G01N – INVESTIGATING OR ANALYSING MATERIALS BY DETERMINING THEIR CHEMICAL OR PHYSICAL PROPERTIES (measuring or testing processes other than immunoassay, involving enzymes or microorganisms C12M, C12Q)

Type*	Location	Old Warning	New/Modified Warning
N	G01N 2015/1481		Group G01N 2015/1481 is impacted by reclassification into group G01N 15/1492. Groups G01N 2015/1481 and G01N 15/1492 should be considered in order to perform a complete search.
N	G01N 15/1492		Group G01N 15/1492 is incomplete pending reclassification of documents from group G01N 2015/1481. Groups G01N 2015/1481 and G01N 15/1492 should be considered in order to perform a complete search.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

C. New, Modified or Deleted Note(s)

SUBCLASS G01N – INVESTIGATING OR ANALYSING MATERIALS BY DETERMINING THEIR CHEMICAL OR PHYSICAL PROPERTIES (measuring or testing processes other than immunoassay, involving enzymes or microorganisms C12M, C12Q)

Type*	**Location**	**Old Note**	**New/Modified Note**
D	G01N 15/1463	{ References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group: counting objects disposed at random with size distrinction G06M 11/04 extraction of features from image for pattern recognition G06V 10/40 specific image analysis method for the recognition of microscopic objects G06V 20/69 image enhancement in general G06T 5/00 image analysis in general G06T 7/00}	Delete the entire Note.

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

2. A. DEFINITIONS (new)

G01N 15/14

Relationships with other classification places

The criterion that demarcates G01N 15/14, and particularly G01N 15/1433, from G01N 15/0227 is whether the image analysis leads to size characteristics peculiar to some particles (in which case G01N 15/14 is the proper classification place), or whether the image analysis produces solely a statistical result characteristic of the sample as a whole and representing the particles' size or size distribution (which is classified in G01N 15/0227).

2. A. DEFINITIONS (modified)

G01N 15/00

Replace: The existing Definition statement text with the following updated text.

Definition statement

This place covers:

The investigation of free particles or cells, i.e. particles or cells that are able to freely move or removably sit on a surface for analytical purposes, or particles or cells which do not form part of a biological tissue.

The investigation of permeability, pore-volume or surface-area of porous materials.

References

Insert: The following new Limiting references section.

Limiting references

This place does not cover:

Identification of microorganisms	C12Q

Replace: The existing Application-oriented references table text with the following updated text.

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Diagnosis, analysis on the human or animal body; Veterinary instruments, implements, tools or methods; Devices for introducing media into, or onto, the body, e.g. sprayers, atomisers for therapeutic purposes, inhalators; Methods or apparatus for disinfecting or sterilising materials, including testing the effectiveness or completeness thereof; Dialysis systems	A61B, A61D, A61M, A61L
Investigating particle size or size distribution by filtering, e.g. testing of membranes	B01D65/10
Apparatus for enzymology or microbiology, e.g. inoculator, sampler, tissue, human, animal or plant cell or virus culture apparatus	C12M
Microorganisms or enzymes, compositions thereof, propagating preserving or maintaining microorganisms, mutation or genetic engineering, including sperm cell counting	C12N
Measuring or testing processes involving enzymes or microorganisms	C12Q
Testing the nature of borehole walls or formation testing by injection test	E21B49/00
Monitoring or diagnostics devices for exhaust gas treatment; Exhaust apparatus having means for purifying exhaust, e.g. by regenerating the soot filter; Electrical control of exhaust gas treating apparatus, including detection of clogging to prepare filter regeneration	F01N11/00, F01N3/00, F01N9/00
Fluid tightness of structures	G01M3/00
Testing of internal-combustion engines, by monitoring exhaust gases	G01M15/10
Investigating concentration of particle suspensions by weighing	G01N 5/00
Investigating particle size or size distribution by measuring osmotic pressure	G01N 7/10
Chemical analysis of biological material	G01N 33/50
Scanning probe or apparatus	G01Q
Arrangements or instruments for measuring magnetic properties of articles or specimens of solids of fluids	G01R33/12
Radio direction finding, radio navigation, determining distance or velocity by use of radio waves	G01S
Geophysics, e.g. seismology, prospecting	G01V
Discharge tubes for examining objects or materials exposed to the discharge, e.g., electron or ion microscopes	H01J37/00
Particle spectrometers or separators	H01J49/00

Replace: The existing Informative references table text with the following updated text.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Separating particles from fluids	B01D
Mixing, e.g. dissolving, emulsifying, dispersing	B01F
Chemical or physical processes, e.g. catalysis, colloid chemistry and their relevant apparatus	B01J
Containers or dishes for laboratory use, e.g. laboratory glassware, microfluidic systems, centrifuge vessels	B01L3/00
Crushing, pulverising, preparatory treatment of grain for milling	B02
Magnetic or electrostatic separation of solid materials from solid material or fluids; Separation by high-voltage electric fields	B03C
Flotation; Differential sedimentation	B03D
Centrifuges	B04B
Spraying apparatus; Atomising apparatus; Nozzles	B05B
Separating solid particles from bulk materials	B07B
Sampling; Preparing specimens for investigation	G01N 1/00
Aerosol sampling devices	G01N2001/2223
Staining of samples	G01N1/30
Investigating density or specific gravity of materials	G01N9/00
Investigating flow properties of materials, e.g. viscosity, plasticity; Analysing materials by determining flow properties	G01N11/00
Investigating surface or boundary effects, e.g. wetting power; Investigating diffusion effects; Analysing materials by determining surface, boundary or diffusion effects	G01N13/00
Analysing materials by optical means, e.g. using scattering or fluorescence	G01N21/47, G01N21/64
Analysing materials by electric, magnetic means	G01N27/00
Analysing materials by ultrasonic, sonic or infrasonic waves	G01N29/00
Analyses of materials according to the nature of the material analysed (gaseous mixtures, food, medical preparations, water, metals, fuels and explosives, earth materials, oils, viscous liquids, paints, inks, paper, textiles, concrete, ceramics, glass, and bricks; grinding-materials, road-making materials, resins, rubber, leather, wood)	G01N33/0004 - G01N33/46

Automatic analysis not limited to specific methods or materials; Handling materials therefor; Automated transfer of samples after their withdrawal to the analysers, including automatic transfer of microbeads or other solid microparticles, and magnetic separation	G01N35/00
Controlling; Regulating; Systems for controlling or regulating	G05
Counting objects disposed at random with size distinction	G06M11/04
Image enhancement in general	G06T5/00
Image analysis in general	G06T7/00
Extraction of features from image for pattern recognition	G06V10/40
Specific image analysis method for the recognition of microscopic objects	G06V20/69
Techniques for handling particles, e.g. optical traps	G21K
Means for supporting or positioning the objects or the material in electron microscopy	H01J37/20
Processes or apparatus adapted for the manufacture or treatment of semiconductor or solid-state devices or of parts thereof	H01L21/00

Replace: The existing Special rules text with the following updated text.

Special rules of classification

An indexing code scheme has been developed in parallel to the structure of the group and mirrors it, apart from finer subdivisions for the purpose of classifying additional (secondary) aspects. Documents with the invention outside G01N15/00, but covering some specific aspects of a group or subgroup of G01N15/00, should only obtain an indexing code in G01N15/00, with their classification as invention in other subclasses.

In general, subgroups of this are further subdivided into subgroups according to the method of investigation used, e.g., optical, electrical, mechanical/inertia. Usually the most specific (sub-)group takes precedence. In borderline cases or cases with different inventive aspects, classification takes place in different groups or subgroups, respectively.

The mere sampling or withdrawal of samples of particle suspensions without the inventive aspect being in the investigation comes under G01N1/02 and its subgroups, mere sample preparation under G01N1/28 and its subgroups.

For searches: Indexing code G01N2001/2223 (sampling of aerosols) could in some cases be relevant for aerosol-related searches in G01N15/00.

G01N15/02 and its subgroups refer to investigating particle size or size distribution of particle assemblies. When the size is investigated on individual particles, classification in G01N15/10 and its subgroups is done.

For searches in G01N15/0255, G01N15/0272 or G01N15/0266, relevant documents might be found in some of the classes and groups referring to separation, as mentioned above. In case of optical methods being used, G01N21/00 may often contain relevant additional documents, e.g., in G01N21/47 (scattering, in general), in G01N21/49 (scattering within a body or fluid), in G01N21/51 (scattering inside a container), in G01N21/53 (scattering within a flowing fluid), or in G01N21/64 (fluorescence). In case of ultrasonic methods used, G01N29/00 and its subgroups should be consulted in addition to G01N15/02.

For atomisers, sprayers for therapeutic purposes, inhalators occasionally relevant to searches in G01N15/0255, cf. A61M11/00, A61M15/00.

G01N15/04 and its subgroup refer to sedimentation of particle suspensions and take precedence over G01N15/02. The groups relating to centrifuges (B04B), laboratory centrifuge vessels (B01L3/5021) or differential sedimentation (B03D) are also relevant.

G01N15/06 and its subgroups cover the investigation of the concentration of particles in suspension (gas, liquid). G01N15/02, G01N15/04, and G01N15/10 and their subgroups take precedence.

For searches: In case of optical or sonic/ultrasonic techniques, see groups of G01N21/00 and G01N29/00, respectively, as mentioned already for G01N15/02. In case of measuring the concentration of particles in exhaust gas/soot particles, cf. also F01N11/00. For monitoring the functioning of the soot filter, or its regeneration, cf. F01N3/00, F01N9/002. For the electrical sensors, e.g. electrode arrangements, cf. G01N27/00. In case of measuring the mass of the particles collected, cf. e.g. G01N5/00 or G01N5/02. For effectiveness or completeness of sterilisation, cf. A61L2/28.

G01N15/08 refers to the second aspect covered by G01N15/00, i.e., the investigation of permeability, pore-volume and surface-area of porous materials. The term of porous materials is interpreted in a broad sense, as all materials have pores, though of different sizes. Testing of membranes (without explicit reference to measurement of the permeability, pore-volume or surface-area) is classified in B01D65/10. For investigating the fluid tightness of structures, cf. G01M3/02. Medical dialysis systems with membranes are dealt with in A61M1/16, and documents related to testing the nature of borehole walls or formation testing by injection test are classified in E21B49/00.

G01N15/10 and its subgroups deal with the first aspect covered by G01N15/00 again, i.e. the investigation of particles, in this part of G01N15/00: of individual particles. In case of characterisation of the individual particles, the related document is classified

in G01N15/10 and below. For the electrode structures in G01N15/12 or G01N15/1031, cf. also G01N27/00 and relevant subgroups.

G01N15/1031 refers to measuring electrical or magnetic effects of the individual particles other than their resistance or impedance as measured in the specific way in which Coulter counters operate. For magnetic separation of particles in automatic analysis, see G01N35/0098. For use of magnetic beads in immunoassays, see G01N33/54326. Mere separation of particles by electrical or magnetic methods is dealt with in B03C. If the focus is on the specific magnetic sensor for measuring individual or collective magnetic effects of particles, e.g. giant magnetoresistance, see G01R33/12.

G01N15/12 and its subgroups refer to Coulter counters and their details, i.e., the impedance or resistance change due to the transfer of an individual particle through an aperture is measured between electrodes upstream and downstream of the aperture.

G01N15/14 and its subgroups refer to the electro-optical investigation of individual particles, e.g. in flow cytometers, whether or not microstructured (microfabricated devices are covered by subgroup G01N15/1484; mere manipulation of particles in microfluidic systems is dealt with in B01L3/5027). In case of image analysis for only measuring the size distribution without any interest in the analysis of individual particles, the related document is classified in G01N15/0227. In case the focus is on the characterisation of individual particles by image analysis, the document is classified in G01N15/1433, either with or without resolution of the inner structure of the particle.

For searches: G01N21/00 may contain additional relevant documents, e.g., in G01N21/03 (cuvette constructions), in particular G01N21/05 (flow-through cuvettes), in G01N21/47 (scattering, in general), in G01N21/49 (scattering within a body or fluid), in G01N21/51 (scattering inside a container), in G01N21/53 (scattering within a flowing fluid), or in G01N21/64 (fluorescence).

The details of the image analysis in G01N15/1433 can be classified in addition in (and should therefore be circulated to) G06M11/04 (counting objects disposed at random with size distinction) G06V10/40 (extraction of features from image for pattern recognition), G06V20/69 (specific image analysis method for the recognition of microscopic objects, G06T5/00 (image enhancement in general) and G06T7/00 (image analysis in general).

Replace: The existing Glossary of terms text with the following updated text.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

particle	discrete material structure with a representative dimension less than 1 cm and with at least one nearly constant geometrical attribute, like shape, diameter or boundary. Some examples are: biological cells, bubbles or material chips.
permeability	capacity of a porous material to transmit a fluid
porosity	fraction of the volume of an apparent solid that is actually empty space
porous materials	includes microporous materials, as well as film or membrane materials

G01N 15/02

Insert: The following new Relationships with other classification places section.

Relationships with other classification places

The determination of particle sizes or size distributions characterised by one or more steps of filtering a fluid is classified in B01D, e.g. B01D 43/00-B01D 50/00.

The determination of particle sizes or size distributions by sifting solid particles dispersed in bulk materials is classified in B07B, e.g. B07B 13/04.

References

Replace: The text in the first row of the Limiting references table with the following updated text.

Limiting references

This place does not cover:

Investigating particle size or size distribution by measuring osmotic pressure	G01N 7/10

Delete: The entire Application-oriented references section.

3. REVISION CONCORDANCE LIST (RCL)

Type*	**From CPC Symbol (existing)**	**To CPC Symbol(s)**
D	G01N 2015/0065	< administrative transfer to G01N 15/01>
D	G01N 2015/0069	< administrative transfer to G01N 2015/011>
D	G01N 2015/0073	< administrative transfer to G01N 2015/012>
D	G01N 2015/0076	< administrative transfer to G01N 2015/014>
D	G01N 2015/008	< administrative transfer to G01N 2015/016>
D	G01N 2015/0084	< administrative transfer to G01N 2015/018>
D	G01N 2015/0088	< administrative transfer to G01N 2015/019>
D	G01N 2015/0693	< administrative transfer to G01N 15/075>
D	G01N 2015/1018	< administrative transfer to G01N 2015/1014>
D	G01N 2015/1025	< administrative transfer to G01N 2015/1016>
D	G01N 2015/1037	< administrative transfer to G01N 2015/1019>
D	G01N 2015/1043	< administrative transfer to G01N 2015/1021>
D	G01N 2015/105	< administrative transfer to G01N 2015/1022>
D	G01N 15/1056	< administrative transfer to G01N 15/1023>
D	G01N 2015/1062	< administrative transfer to G01N 2015/1024>
D	G01N 2015/1068	< administrative transfer to G01N 2015/1026>
D	G01N 2015/1075	< administrative transfer to G01N 2015/1027>
D	G01N 2015/1081	< administrative transfer to G01N 2015/1028>
D	G01N 2015/1087	< administrative transfer to G01N 2015/1029>
D	G01N 2015/1093	< administrative transfer to G01N 2015/103>
D	G01N 15/1209	< administrative transfer to G01N 15/131>
D	G01N 15/1218	< administrative transfer to G01N 15/13>
D	G01N 15/1227	< administrative transfer to G01N 15/132>
D	G01N 2015/1236	< administrative transfer to G01N 2015/133>
D	G01N 15/1245	< administrative transfer to G01N 15/134>
D	G01N 2015/1254	< administrative transfer to G01N 2015/135>
D	G01N 2015/1263	< administrative transfer to G01N 2015/136>
D	G01N 2015/1272	< administrative transfer to G01N 2015/137>
D	G01N 2015/1281	< administrative transfer to G01N 2015/138>
D	G01N 2015/129	< administrative transfer to G01N 2015/139>
D	G01N 2015/1409	<administrative transfer to G01N 15/1409>
D	G01N 15/1463	< administrative transfer to G01N 15/1433>
D	G01N 2015/1465	< administrative transfer to G01N 15/1433>
D	G01N 15/1475	< administrative transfer to G01N 15/1433>
C	G01N 2015/1481	G01N 2015/1481 , G01N 15/1492
D	G01N 2015/149	<administrative transfer to G01N 15/149>

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the "To" column, do not use ranges of symbols.

- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("To") symbol, however it is required to specify "<no transfer>" in the "To" column for such cases.
- RCL is not needed for finalisation projects.

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

CPC	**IPC**	**Action***
G01N 2015/0065		DELETE
G01N 2015/0069		DELETE
G01N 2015/0073		DELETE
G01N 2015/0076		DELETE
G01N 2015/008		DELETE
G01N 2015/0084		DELETE
G01N 2015/0088		DELETE
G01N 15/01	G01N 15/01	NEW
G01N 2015/011	G01N 15/01	NEW
G01N 2015/012	G01N 15/01	NEW
G01N 2015/014	G01N 15/01	NEW
G01N 2015/016	G01N 15/01	NEW
G01N 2015/018	G01N 15/01	NEW
G01N 2015/019	G01N 15/01	NEW
G01N 15/0205	G01N 15/0205	UPDATE
G01N 15/0211	G01N 15/0205	UPDATE
G01N 2015/0216	G01N 15/0205	UPDATE
G01N 2015/0222	G01N 15/0205	UPDATE
G01N 15/0227	G01N 15/0227	UPDATE
G01N 2015/0233	G01N 15/0227	UPDATE
G01N 2015/0238	G01N 15/0205	UPDATE
G01N 2015/0244	G01N 15/0205	UPDATE
G01N 2015/025	G01N 15/0205	UPDATE
G01N 2015/0693		DELETE
G01N 15/075	G01N 15/075	NEW
G01N 2015/1014	G01N 15/10	NEW
G01N 2015/1016	G01N 15/10	NEW
G01N 2015/1018		DELETE
G01N 2015/1019	G01N 15/10	NEW
G01N 2015/1021	G01N 15/10	NEW
G01N 2015/1022	G01N 15/10	NEW
G01N 15/1023	G01N 15/10	NEW
G01N 2015/1024	G01N 15/10	NEW
G01N 2015/1025		DELETE
G01N 2015/1026	G01N 15/10	NEW
G01N 2015/1027	G01N 15/10	NEW
G01N 2015/1028	G01N 15/10	NEW
G01N 2015/1029	G01N 15/10	NEW
G01N 2015/103	G01N 15/10	NEW
G01N 15/1031	G01N 15/1031	UPDATE
G01N 2015/1037		DELETE

CPC	**IPC**	**Action***
G01N 2015/1043		DELETE
G01N 2015/105		DELETE
G01N 15/1056		DELETE
G01N 2015/1062		DELETE
G01N 2015/1068		DELETE
G01N 2015/1075		DELETE
G01N 2015/1081		DELETE
G01N 2015/1087		DELETE
G01N 2015/1093		DELETE
G01N 15/1209		DELETE
G01N 15/1218		DELETE
G01N 15/1227		DELETE
G01N 2015/1236		DELETE
G01N 15/1245		DELETE
G01N 2015/1254		DELETE
G01N 2015/1263		DELETE
G01N 2015/1272		DELETE
G01N 2015/1281		DELETE
G01N 2015/129		DELETE
G01N 15/13	G01N 15/13	NEW
G01N 15/131	G01N15/12	NEW
G01N 15/132	G01N15/12	NEW
G01N 2015/133	G01N15/12	NEW
G01N 15/134	G01N15/12	NEW
G01N 2015/135	G01N15/12	NEW
G01N 2015/136	G01N15/12	NEW
G01N 2015/137	G01N15/12	NEW
G01N 2015/138	G01N15/12	NEW
G01N 2015/139	G01N15/12	NEW
G01N 15/1404	G01N 15/1404	UPDATE
G01N 2015/1406	G01N 15/1404	UPDATE
G01N 2015/1409		DELETE
G01N 15/1409	G01N 15/1409	NEW
G01N 2015/1411	G01N 15/1409	UPDATE
G01N 2015/1413	G01N 15/1404	UPDATE
G01N 2015/1415	G01N 15/1404	UPDATE
G01N 2015/1418	G01N 15/1404	UPDATE
G01N 2015/142	G01N 15/1404	UPDATE
G01N 2015/1422	G01N 15/1404	UPDATE
G01N 15/1429	G01N 15/1429	UPDATE
G01N 15/1431	G01N 15/1429	UPDATE
G01N 15/1433	G01N 15/1433	NEW
G01N 15/1434	G01N 15/1434	UPDATE
G01N 15/1436	G01N 15/1434	UPDATE
G01N 2015/1438	G01N 15/1434	UPDATE

CPC NOTICE OF CHANGES 1589

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CPC	**IPC**	**Action***
G01N 2015/144	G01N 15/1434	UPDATE
G01N 2015/1443	G01N 15/1434	UPDATE
G01N 2015/1445	G01N 15/1434	UPDATE
G01N 2015/1447	G01N 15/1434	UPDATE
G01N 2015/145	G01N 15/1434	UPDATE
G01N 2015/1452	G01N 15/1434	UPDATE
G01N 2015/1454	G01N 15/1434	UPDATE
G01N 15/1463		DELETE
G01N 2015/1465		DELETE
G01N 15/1475		DELETE
G01N 2015/149		DELETE
G01N 15/149	G01N 15/149	NEW
G01N 15/1492	G01N 15/1492	NEW

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are <u>not</u> included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.

5. CROSS-REFERENCE LIST (CRL)

Definitions references impacted by this revision project

Location of reference to be changed	**Referenced subclass or group to be changed**	**Section of definition**	**Action; New reference symbol; New text**
G08B 21/00	G01N 2015/0088	Informative references	G01N 2015/019

NOTES:

- The CRL tables above are used for changes to locations **outside** of the project scope. Changes to references in scheme titles or definitions inside the project scope will be reflected in the "scheme change" template or one of the "definition" templates.
- In addition to other changes proposed in the tables above, in the column titled "Referenced subclass or group to be changed," **referenced** D symbols should indicate an action of "delete" or should indicate a replacement symbol and **referenced** F symbols should indicate a replacement symbol.
- When a reference is deleted, text related to that reference will also be deleted unless other references or a range of references associated with the same text remain.