EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 63

DATE: MARCH 1, 2015

PROJECT DP0001 – DP0014, DP0016 – DP0021

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

Action	**Subclass**	**Group(s)**
New/modified/deleted Definitions	A01K	39/014, 63/003, 63/04, 67/027
	A61B	3/00, 3/101, 3/102, 5/00, 5/024, 5/055, 10/00, 17/00, 17/0487, 17/16, 17/17, 18/00, 19/00
	A61F	(subclass), 7/00, 2007/0054, 7/03, 9/00, 11/14, 11/145
	A61K	9/00, 31/00, 35/00, 38/00, 39/00, 41/00, 45/06, 47/00, 47/48, 47/48092, 47/481
	A61M	(subclass), 1/00, 3/00, 5/00, 5/2422, 16/00, 16/0051, 16/01, 19/00, 25/00, 25/0105, 25/0133, 27/00, 2202/04
	B60R	19/02
	B65D	(subclass), 81/00, 81/025, 81/03, 81/05, 81/051, 81/052, 81/053, 81/07, 81/075, 81/09, 81/107, 81/1075, 81/113, 81/127, 81/1275, 81/133, 81/20, 81/2007, 81/2015, 81/2023, 81/2046, 81/2061, 81/2069, 81/22, 81/24, 81/245, 81/26, 81/261, 81/262, 81/263, 81/264, 81/265, 81/266, 81/267, 81/268, 81/30, 81/32, 81/3205, 81/3211, 81/3216, 81/3222, 81/3227, 81/3233/, 81/3238, 81/3244, 81/325, 81/3255, 81/3261, 81/3266, 81/3272, 81/3277, 81/3283, 81/3288, 81/3294, 81/34, 81/3407, 81/3415, 81/3423, 81/343, 81/3438, 81/3446, 81/3453, 81/3469, 81/3484, 81/3492, 81/36, 81/363, 81/365, 81/366, 81/38, 81/3811, 81/3816, 81/3818, 81/382, 81/3823, 81/3825, 81/3827, 81/383, 81/3832, 81/3834, 81/3839, 81/3841, 81/3846, 81/3851, 81/3853, 81/3858, 81/386, 81/3862, 81/3865, 81/3867, 81/3869, 81/3874, 81/3879, 81/3881, 81/3886, 81/3893, 3897
	C07K	16/00
	C08J	(subclass), 3/18, 5/18, 7/00, 7/123, 9/00, 9/127, 9/16, 9/22, 9/26
	C12N	5/00, 5/06, 5/0606, 5/0607, 5/0647, 7/00, 9/00, 9/96, 9/98, 11/00, 15/00, 15/11, 15/52, 15/85
	C12P	(subclass), 1/00, 19/00, 2201/00, 2203/00
	C12Q	1/00, 1/025, 1/24, 1/68, 1/6804, 1/70
	C12R	(subclass)
	G01N	1/00, 33/50, 33/5005, 33/5008, 33/5082, 33/5097, 33/53, 33/5308, 33/531, 33/536, 33/542, 33/566, 33/569, 33/56961, 33/58
	G02B	(subclass), 1/00, 3/00, 5/00, 5/08, 5/204, 5/32, 6/00, 6/0001, 6/02, 6/10, 6/12, 6/26, 6/36, 6/3801, 6/3809, 6/381, 6/3833, 6/3869, 6/42, 7/00, 13/06, 15/00, 17/00, 17/026, 17/045, 17/06, 19/00, 21/00, 23/00, 26/00,

CPC NOTICE OF CHANGES 63

DATE: March 1, 2015

PROJECTS DP0001 – DP0014, DP0016 – DP0021

Action	**Subclass**	**Group(s)**
		26/001, 26/026, 26/0833, 27/00
	G02F	1/0009, 1/01, 1/0128, 1/0147, 1/015, 1/025, 1/03, 1/0338, 1/05, 1/055, 1/11, 1/13, 1/1313, 1/1335, 1/133602, 1/133615, 1/13452, 1/15, 1/17, 1/19, 1/23, 1/29, 1/35, 2/00, 2/004, 3/00, 7/00
	H01L	(subclass), 21/00, 21/02115, 21/02175, 21/0334, 21/0405, 21/0445, 21/18, 21/265, 21/28, 21/28008, 21/28017, 21/3065, 2021/775, 21/8239, 22/00. 23/00, 23/544, 23/585, 27/00, 27/0288, 27/10829, 27/1085, 27/1087, 27/10873, 27/12, 27/1203, 27/1211, 27/1422, 27/1423, 29/00, 41/00, 49/00
	H01M	(subclass), 8/06, 8/0618, 14/005, 16/003
	H04L	12/467, 41/147, 63/00, 63/02, 63/0209, 63/0218, 63/0227, 63/0236, 63/0245, 63/0254, 63/0263, 63/0272, 63/0281, 63/029, 63/04, 63/0407, 63/0414, 63/0421, 63/0428, 63/045, 63/0457, 63/0485, 63/06, 63/061, 63/062, 63/065, 63/067, 63/068, 63/08, 63/0807, 63/0815, 63/0823, 63/083, 63/0846, 63/0853, 63/0861, 63/0869, 63/0876, 63/0884, 63/0892, 63/10, 63/101, 63/102, 63/104, 63/105, 63/107, 63/12, 63/123, 63/126, 63/14, 63/1408, 63/1416, 63/1425, 63/1433, 63/1441, 63/1458, 63/1466, 63/1475, 63/1483, 63/16, 63/18, 63/20, 63/205, 63/30, 63/302, 63/304, 67/2828
	H05K	1/14, 13/00

No other subclasses/groups are impacted by this Notice of Changes.

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

2. A. DEFINITIONS (i.e. new or modified)

A01K39/014

Insert:

Informative references

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

Feeding or drinking devices associated with cages.	A01K1/0356
Feed troughs; Feed pails.	A01K5/01
Nest-boxes.	A01K31/14
Feeding or drinking appliances for poultry or other birds.	A01K39/00
Feeding devices.	A01K39/01
Filling automatically	A01K39/012
Culture of bivalves.	A01K61/025

A01K63/003

Insert:

Informative references

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

Beehives	A01K47/00
Culture of fish, mussels, crayfish, lobsters, sponges, pearls...	A01K61/00
Cleaning bottoms or walls of ponds or receptacles.	A01K61/003
Receptacles for live fish.	A01K63/00
Arrangements for treating water specially adapted to...	A01K63/04
Rearing or breading animals, not otherwise provided for.	A01K67/00
Flower boxes...	A01G9/00
Showcases...	A47F3/00

A01K63/04

Insert:

Informative references

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

Culture of fish, mussels, crayfish, lobsters, sponges, pearls	A01K61/00
Cleaning bottoms or walls of ponds or receptacles	A01K61/003
Aquaria; Terraria	A01K63/003
Introducing gases into the water	A01K63/042
Filters in general	B01D1/00
Ion exchange	B01J1/00
Water treatment in general...	C02F1/00
Artificial ponds	E02B1/00
Pumps in general	F04F1/00
Monitoring water quality	G01N33/182

A01K67/027

Insert:

Definition statement

This group covers:

The germline of animals can be altered by introduction and/or deletion of genetic material. Such genetically modified animals can be used e.g. for the production of heterologous proteins or as models for disease. This subgroup covers transgenic vertebrates (A01K67/0275-A01K67/0278) and invertebrates (A01K67/033+).

In addition, the following animals which do not necessarily comprise a modified germline are classified here: chimeric animals comprising somatic cells from another individual or species (A01K67/0271), and cloned animals (A01K67/0273).

Relationship between large subject matter areas

Symbols in the A01K67/027-A01K67/033 range are used in combination with C12N15/8509 and subgroups if a meaningful disclosure of the vector (system) for transgenesis is given. Processes of producing embryos, including cloning of animals, are additionally indicated by C12N15/873-C12N15/877 symbols.

References relevant to classification in this group

This group does not cover:

Breeding of animals	A01K67/02
Preservation of embryos	A01N1/02
Embryonic and germ cells per se	C12N5/00

Informative references

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

Screening of agents using (transgenic) animal models	A61K49/0008
Specific proteins used for transgenesis	C07K14/00
Specific enzymes used for transgenesis	C12N9/00
Further aspects of vectors	C12N2800/00 - C12N2840/00
Testing involving animals	G01N33/5082

Special rules of classification within this group

Modified animals are classified in A01K67/027-A01K67/033 (animals), C12N15/8509, C12N15/873, C12N15/877 (relating to vectors and methods for producing such animals) and the following ranges of symbols must be given (i.e. compulsory) to indicate further aspects thereof.

A01K2207/00 relates to modifications that do not affect the germline.

A01K2217/00 indicates various technical aspects of genetic modification

A01K2227/00 defines the species of the (genetically modified) animal

A01K2267/00 indicates the purpose of the (genetically modified) animal

Whereas symbols in the A01K2217/00 range are restricted to genetically modified animals, the symbols in the A01K2207/00, A01K2227/00 and A01K2267/00 ranges are used for all modified animals covered by A01K67/027-A01K67/033, C12N15/8509, C12N15/73 and C12N15/877. Please note that multiple symbols from each category may be required to cover all disclosed aspects.

Genetically modified animals

When a genetically modified animal is actually made, A01K67/0275-A01K67/0278, A01K67/033 or a subgroup thereof needs to be given, whereby the last place rule applies. If a vector for transgenesis is disclosed, additionally the C12N15/8509 symbol needs to be given. The specific aspects of the animal are to be indicated with symbols in the A01K2217/00, A01K2227/00 and A01K2267/00 ranges, which must always be given. When a human transgene is introduced, A01K2207/15 is to be added.

Special elements of the vectors are indicated using symbols in the C12N2800/00-C12N2840/00 ranges, whereby A01K2217/203 takes precedence over C12N2830/001-C12N2830/006, and A01K2217/206 takes precedence over C12N2830/008. The C12N2830/001 to C12N2830/008 symbols are only to be given if the invention actually resides in these elements.

If the transgene can be meaningfully indicated, C07K14/00 and/or C12N9/00 symbols are to be given. If a viral vector is used for transgenesis, the relevant symbol from the C12N2710/00-C12N2795/00 range combining the taxonomy of the virus with the ending 43 (for use as a genetic vector), must be given.

Chimeric animals

Chimeric animals (A01K67/0271) may result from combining cells at the embryonic stage (e.g. the sheep-goat chimera 'geep'), or from exogenously added cells later in development, for instance transfer of functional immune system cells to immuno-compromised mice, or transplantation of tumor cells to form a tumor model.

The specific species (from the A01K2227/00 series) and purpose (from the A01K2267/00 series) of the chimeric animal must be indicated. When human cells are introduced, A01K2207/15 is to be added.

When a chimeric animal is disclosed, which does not relate to the core of the invention, A01K2207/12 is to be given.

Cloned animals

Documents relating to methods of producing cloned mammals (C12N15/877 and subgroups) should also be classified in A01K67/0273 if cloned animals have actually been obtained. In addition, the appropriate A01K2227/00 symbol should be given to indicate the species, and where relevant, the purpose (A01K2267/00). When manipulation of (germ) cells is involved, C12N5/00 symbols should also be considered, following the classification rules of said field.

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
A01K39/014	Definition statement	See also: A01K1/0356 Feeding or drinking devices associated with cages. A01K5/01 Feed troughs; Feed pails. A01K31/14 Nest-boxes. A01K39/00 Feeding or drinking appliances for poultry or other birds. A01K39/01 Feeding devices. A01K39/012 Filling automatically. A01K61/025 Culture of bivalves.	delete
A01K63/003	Definition statement	See also: A01K47/00 Beehives. A01K61/00 Culture of fish, mussels, crayfish, lobsters, sponges, pearls... A01K61/003 Cleaning bottoms or walls of ponds or receptacles. A01K63/00 Receptacles for live fish. A01K63/04 Arrangements for treating water specially adapted to... A01K67/00 Rearing or breading animals, not otherwise provided for. A47F3/00 Showcases... A01G9/00 Flower boxes...	delete

A01K63/04	Definition statement	See also: A01K61/00 Culture of fish, mussels, crayfish, lobsters, sponges, pearls... A01K61/003 Cleaning bottoms or walls of ponds or receptacles. A01K63/003 Aquaria; Terraria. A01K63/042 Introducing gases into the water. B01D1/00 Filters in general... B01J1/00 Ion exchange... C02F1/00 Water treatment in general... F04F1/00 Pumps in general... G01N33/182 Monitoring water quality... E02B1/00. Artificial ponds...	delete

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

A61B3/00

Insert: The following under Special rules section, after the last paragraph:

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61B3/101

Insert:

Synonyms and keywords

In patent documents the expression/word Examining is often used with the meaning Measuring.

A61B5/00

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61B5/055

Delete: The current Special Rules section

Insert:

Special rules of classification within this group

There is an overlap between the scope of G01R33/20 (or its relevant subgroup) and A61B5/055 in the sense that, depending on the disclosure of a given document, the document may have to be classified in G01R33/20 (or its relevant subgroup) only, in

A61B5/055 only or in both places. For instance, if the invention information of a document to be classified was primarily directed to the MR process as such (e.g. a novel pulse sequence which, according to the document, facilitates the diagnosis of a disease on the basis of the resulting MR images wherein the document merely mentions the diagnosis but does not specifically disclose its implementation in detail), the document should be classified in G01R33/20 (or its relevant subgroup) and the additional information related to the diagnosis may be classified using the appropriate Indexing Code corresponding to A61B5/055. However, if the invention information of the document was primarily directed to the diagnosis as such (e.g. a novel way of processing MRI data in order to enable the diagnosis of a disease wherein the MRI data was acquired using a commonly known standard MRI technique), the document should be classified in A61B5/055 only.

A61B10/00

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61B17/00

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61B17/0487

Delete: Under References relevant section, the last table row

Insert: New row at the end of the table

Clamps comprising opposed elements which grasp one vertebra between them	A61B17/7047

A61B17/16

Delete: Under Informative references section, the last table row

Insert: New row at the end of the table

Informative references

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

Abutting on tissue or skin	A61B2019/306

A61B17/17

Delete: Under Informative references section, delete the last table row

Insert: New row at the end of the table

Abutting means, stops, e.g. abutting on tissue or skin	A61B2019/303

A61B18/00

Delete: The current Special rules section

Insert:

Special rules of classification within this group

Documents with control aspects for surgery not covered by A61B2018/00636 should additionally be classified in A61B2017/00017 - A61B2017/00225. Documents with additional features or accessories for surgery not covered by A61B18/00 should be additionally classified in A61B19/00.

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

The "orthogonal" symbols of A61B17/00 are also used in A61B18/00, "orthogonal" symbols of A61B18/00 take precedence.

The area relating to the body part being treated is classified in A61B2018/00315 - A61B2018/00565.

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
A61B3/102	Definition statement		Add “By” to beginning of sentence
A61B5/024	Informative references	A61B5/00J	A61B5/486
A61B19/00	Special rules		Add paragraph: The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) are to be used for classifying the invention information in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

A61F

Insert:

Special rules of classification within this subclass

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

Classify in both A61M and A61F if the disclosed utility is injecting media into the body, e.g. blood, to cool the body.

A61F7/00

Delete: The current Special rules section

Insert:

Special rules of classification within this group

Documents describing treatment with a device for heating alone or a device described to be able to apply both heating and cooling (with the necessary adaptations to the heat source, e.g. a self-heating exothermic pad which is described or claimed as being equally configurable as self-cooling endothermic pad by using the appropriate chemicals) should be classified in A61F7/00 - A61F7/08 or A61F7/12.

Documents related to bags, pads etc. exclusively using cooling should be classified in A61F7/10 (e.g. chemically cooled endothermic pads only described for cooling in A61F7/106).

As an exception in A61F7/00, A61F2007/0056 and A61F2007/0063 also exclusively deal with cooling.

Further details of subgroups

A61F2007/0001: locations on the human body for heating and cooling. Not for invention information. Headgroup A61F2007/0001 not to be used for classification.

A61F7/0053: Cabins, rooms chairs or other equipments for treatment with a hot or cold circulating fluid. Does not cover heating pads with a circulating fluid, those are to be classified in A61F7/02.

A61F2007/0054: "closed fluid circuit" refers to a device in which the circulating thermal medium, e.g. water, is not in direct contact with the treatment area;

A61F2007/0059:"open fluid circuit" refers to a device in which the circulating thermal medium, e.g. water, is in direct contact with the treatment area;

A61F7/007: Electrically heated or cooled devices.

A61F7/0085: Devices for generating hot or cold treatment fluids, the devices not being in direct contact with the patient. Only the fluid is transported from the device to a separate patient heating or cooling device.

A61F7/0097: Heating blankets. Only blankets with an active heating or cooling source, no ordinary blankets keeping warm by insulation only (to be classified in A47G9/0207).

A61F7/02: Compresses, poultices or other pads for heating or cooling.

A61F7/03: Chemical heating devices. Not the chemicals as such (to be classified in C09K5/00), only as part of a device to be used on the body for therapy.

A61F7/08: hot water bottles for heating, refillable with a non-circulating hot or cold fluid.

A61F7/10: Cooling bags, pads etc. exclusively used for cooling.

A61F7/106: Chemical cooling devices. Not the chemicals as such (to be classified in C09K5/00), only as part of a cooling device used on the body.

A61F7/12: Cooling devices for internal body cavities.

A61F2007/0054

Insert:

Definition statement

This group covers:

"closed fluid circuit" refers to a device in which the circulating thermal medium, e.g. water, is not in direct contact with the treatment area.

A61F7/03

Insert:

Special rules of classification within this group

Documents with self-cooling as well as self-heating devices are classified here, even though the title covers only self-heating devices

A61F11/14

Insert:

Definition statement

This group covers:

only acoustic protection.

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
A61F	References relevant Row "Devices for closing wounds, or holding wounds closed"	A61B17/03	A61B17/08
A61F	Synonyms and Keywords	*In patent documents the expression "device for fluid management" is often used with the meaning " incontinence article".*	*In patent documents the expression/word device for fluid management is often used with the meaning incontinence article.*
A61F9/00	Special rules of classification		Add as last paragraph: The symbols in A61B17/00 and A61B18/00 are to be used for classifying additional information in case there is no appropriate symbol in A61F9/00736, A61F9/0079 or A61F9/008.
A61F11/14	References relevant		Add row: Other external protector | A61F11/06
A61F2011/145	Reference relevant	Hearing devices using active noise cancellation (e.g. US6661901)	Hearing devices using active noise cancellation

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

A61K9/00

Insert:

Definition statement

This subclass/group covers:

Pharmaceutical compositions which are characterised by the following galenical aspects:

- The form (e.g. tablets) (see also "Special rules" section)
- The site of application, i.e. the body location where they are administered (e.g. oral, nasal, rectal compositions)
- The drug release technique (e.g. effervescent compositions, osmotic delivery systems)

In addition, the following is also classified:

- Processes of making such compositions
- Medical uses characterised by any of the above galenical aspects (dosage form, site of application, release technique)
- Excipients for use in a specific dosage form (e.g. tableting excipients)

In A61K "Galenic" form" relates to pharmaceutical (drug delivery) compositions in general. "Galenical" aspects relate to aspects of pharmaceutical technology of pharmaceutical compositions. (i.e. aspects of pharmaceutical compositions other than the active ingredient per se, e.g. physical form, excipients, dosage etc.

It is sufficient to say pill, capsule, particle etc. for classification. The pill or the like does not require further elaboration to warrant classification in A61K9/00. Any concrete, well-defined pharmaceutical composition disclosed in the examples is considered to be characterized by a physical form. Also classified are independent claims defining galenical aspects of a pharmaceutical composition or a medical use. For example the following forms are considered to be characterized by a physical form:- a suppository, ointment, solution, dispersion, emulsion, aerosol, foam, liposome, powder, granulate, micro/nanosphere, pill, tablet, capsule, micro/nanocapsule, web, sheet, filament, etc. This list is not exhaustive. A borderline case is an animal test where the galenical aspect of the composition is not further defined (e.g. intravenous injection, per os administration), unless it is absolutely clear that the test represents the intended mode of administration.

Relationship between large subject matter areas

Galenical aspects of pharmaceutical compositions are usually classified by giving a combination of classes in A61K9/00 and A61K47/00. The last place rule does not apply between A61K9/00 and A61K47/00 - A61K47/46. Excipients can be classified in

A61K47/00 or in A61K9/00, depending on the situation: A61K47/00 is used to classify excipients in compositions for which A61K9/00 does not provide information on excipients. No A61K47/00 is given if A61K9/00 already provides information on excipients (e.g. tablet excipients are only classified in A61K9/20...). New excipients per se are (in addition) classified in A61K47/00.

Conjugates, i.e. compounds comprising a non-active ingredient bound to the active ingredient, are classified in A61K47/48. Pharmaceutical compositions comprising conjugates may in addition be classified in A61K9/00.

The active ingredients in pharmaceutical compositions are classified in A61K31/00 - A61K45/00, or A61K48/00 - A61K51/00.

Bandages for treatment of wounds are classified in A61L. These bandages may comprise active agents, e.g. anti-inflammatory, antibacterial agents to enhance the action of the bandage. Compositions comprising an active agent for wound healing which are neither bandages, nor form bandages (e.g. spray-on bandages) are classified in A61K9. These compositions, e.g. lotions, are classified according to the site of application, A61K9/0014 and, where relevant, according to the form e.g. A61K9/06, A61K9/08 and/or excipients used (A61K47/00). Bandages for wound treatment should not be confused with transdermal patches, the main function of which is (usually systemic) drug delivery rather than the treatment of wounds. Transdermal patches are classified in A61K9/7023 and subgroups. Bandages also should not be confused with medicated film (forming) compositions that are not for wound healing; these are classified in A61K9/7007 (and A61K9/7015)

References relevant to classification in this group

This subclass/group does not cover:

Nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations	A61K49/18
Preparations containing radioactive substances	A61K51/12

Special rules of classification within this group

Classified are concrete, well-defined pharmaceutical compositions disclosed in the examples. Also classified are independent claims defining galenical aspects of a pharmaceutical composition or a medical use (for "galenical aspects", see Definition Statement).

All relevant galenical aspects must be classified.

The one dot groups of A61K9/00 do not follow the last place rule

In principle all examples are classified, also 'standard' examples in documents describing e.g. a new medical use.

However, systematically classifying all excipients in the examples is not necessary, and

often undesirable. In any case classified are excipients which are described as being important for the invention, or which the reader can identify as having an important function, e.g. for sustained release. For 'standard' compositions the examiner should choose one or a few excipients to classify. (Note: A 'standard' example is an example that is simple and does not appear to be part of the invention. For instance in a document relating to the new medical use of a (new) chemical compound, often some compositions are given which are 'standard' (if not hypothetical): a tablet with e.g. lactose, microcrystalline cellulose and magnesium stearate, an injection solution with NaCl, etc.

In any case such examples should be classified, whether considered 'standard' or not. In how far all excipients in such compositions are classified is left to the classifier's discretion).

When there are too many examples, they can sometimes be covered by a more general class. However, head groups should not be used for this.

(A "head" group does not have the same meaning as a main group. With "head group" is meant a group which is further subdivided in such a way that classification can always be made in one of the lower groups. For instance A61K9/2004 is a head group, A61K9/0012 is a head group, as well as A61K9/0002. In principle such head groups should be empty.

A61K9/0002 is the head group for the drug release techniques (see Definition statement). Only its subgroups are used for classification, when relevant. A61K9/0002 is empty; there is no general sustained release group.

Animal tests to study pharmacokinetic properties of a drug are not classified, unless it is absolutely clear that they represent the intended mode of administration. (Note: What is meant here, are pharmacokinetic tests in animals, e.g. by injection or gavage. Such tests usually say nothing about the final intended dosage forms, but are necessary e.g. for regulatory purposes. The value of their pharmaceutical/galenical information is therefore very low. Exceptions are perhaps inhalation tests in animals, as these are normally only done with drugs intended to be inhaled).

Processes for preparing a composition, even when claimed, are only classified if they appear of interest.

The description and dependent claims are not classified. However, if the document as a whole focuses on one clearly preferred embodiment, this embodiment may be classified, even in the absence of relevant examples or independent claims. The intention here is primarily to avoid that all lists in the dependent claims are fully classified (e.g. all tablet excipients for sustained release, while only one is used in the examples).

If a specific subcombination is claimed, such a subcombination will usually be reflected in the examples, which should in any case be classified. And if this subcombination is not reflected in examples, but clearly forms the invention (following e.g. the description), then it also should be classified. In all other cases, the specific subcombination is probably not inventive, so no need to classify.

In general, information relating to the invention is classified using invention information symbols, while additional information is classified using additional information symbols.

This is largely up to the discretion of the examiner. Please note however the following special situations:

- Normally only final compositions are classified, not intermediates. However, it may be useful to classify intermediates as additional information (e.g. a tablet comprising microcapsules; a multicoated microparticle). If the intermediates are claimed separately, they must be classified as invention information.
- If, in the classification scheme, a group refers out to another group, an additional information symbol may still be given for the first group (e.g. oral mucoadhesive film).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Microemulsion	any emulsion with a particle size below 1 µ
Microparticle	particle having a size between 1 µ and about 3 mm
Microsphere	homogenous or multi-nuclear particle having a size between 1 µ and about 3 mm
Microcapsule	capsule or coated particle having a size between 1 µ and about 3 mm
Nanoparticle, nanocapsule	(coated) particle or capsule having a size below 1 µ

A61K38/00

Delete: The current definition

Insert:

Definition statement

This subclass/group covers:

Peptides, proteins or their fragments (from dipeptides onwards), or the corresponding nucleic acids encoding these peptides/proteins, when claimed for use in the therapy of humans or animals, i.e. when claimed as therapeutically active components.

In particular:

Medicinal formulations or compositions per se containing therapeutically active peptides or proteins.

Peptides or proteins for use in any medical applications.

Use of a peptide or protein for the manufacture of a medicament for the treatment of a pathological condition.

Relationship between large subject matter areas

Proteins or peptides claimed per se, are classified under the proper C07K subgroup; within the same document, further claims to their use in therapy are given the additional information symbol A61K38/00. An invention information classification should be given in A61K38/00+ only for documents claiming the further medical use of proteins or peptides without claiming the proteins or peptides per se (Note: The A61K38/00 scheme is mostly (with exceptions) aligned with the C07K2/00 to C07K14/00 schemes, however with less subdivisions. Hence to find the appropriate A61K38/00 classification subgroup to be given to a protein used in therapy, the procedure consists of checking the place of said protein in the C07K scheme and apply the corresponding place, if correct and justified, in the A61K38/00 scheme, for the sake of consistency between schemes).

The use of proteins or peptides of known source in therapy, or therapeutic compositions, is classified as additional information in the A61K35/00 or A61K36/00 subgroups if the source is considered an important aspect of the invention, as well as in the appropriate A61K38/00 subgroup for known sequences or A61K38/02 for unknown sequence. If the source is not known, only a classification in A61K38/00+ is needed.

When a protein or peptide mixture for use in therapy contains at least one active ingredient without chemical characterisation (e.g. functional feature such as antiphlogistics, anti-cancer agent), invention information classifications should be given in A61K38/00+ and A61K45/06.

When a compound is only and exclusively defined in the description and claims by means of a functional definition, no specific examples are provided, and it is unclear whether the functionally defined compound is a compound according to any of A61K31/00, A61K33/00, A61K35/00, A61K36/00, A61K38/00 or A61K39/00, then invention information classification in A61K45/00 is assigned. For example a general concept (e.g. "Compound X for use in treating disease Y, wherein X is a protein, an antibody or a chemical compound" with no specific compounds given, i.e. the document does not give a single, concrete example of peptidic or proteic compounds) is not classified under A61K38/00 but under A61K45/00.

Preparations comprising enzymes are classified under A61K38/43 to A61K38/54, followed by a C12Y invention information symbol for the specified enzyme(s). For example, a preparation comprising alpha-galactosidase is classified under A61K38/47 (i.e. Hydrolases acting on glycosyl compounds) and C12Y302/01022 (i.e. alpha-galactosidase EC 3.2.1.22).

Claims to "enzyme inhibitors" for use in therapy, without any specific example or without an identified peptidic structure, i.e. "reach-through" claims, are not covered by A61K38/00 but are classified in C12Q1/00 or G01N33/00 as appropriate. At first glance this may appear somewhat of an anomaly however claims of this type are usually a result of a screening process e.g. â€œA compound identified by the method of claim 1 for treatment of disease X. Claim 1 would typically be something like â€œA method for identifying an inhibitor for cholesterol esterase comprising ...etc. As the method for identification of such a compound would be classified in C12Q and no provision is made in A61K38/00 for

classification of compounds without an identified peptidic structure, classification in C12Q alone is deemed sufficient. The same applies to documents classified in G01N for screening purposes. (Note: A "reach-through" claim is defined as a claim attempting to obtain protection for a chemical products' uses, compositions thereof, etc. by defining that product by its functionality in terms of its action e.g. an agonist, antagonist, inhibitor of a biological target such as an enzyme or receptor).

Stabilisation of a specific active protein or peptide with an inert additive (i.e. inactive carrier, targeting agent, potentiator, adjuvant) for use in therapy is classified under the appropriate A61K38/00 symbol for the therapeutically active protein or peptide and under A61K47/00. For example, a therapeutic composition comprising growth hormone together with albumin or collagen, the latter being present in the composition for its function as stabiliser of the hormone, will be classified under A61K38/27 (growth hormone) as well as A61K47/42 (albumin, collagen) but not under A61K38/38 (albumin used as therapeutically active agent) nor A61K38/39 (collagen used as therapeutically active agent).

Proteins or peptides for use in therapy, characterised by the special physical form (i.e. new galenic formulation of a known protein or peptide for use in therapy) may require classification under A61K9/00. An A61K38/00 classification is given for the protein or peptide only in case of a specified protein or family of proteins. No A61K38/00 classification is given as invention information to an exhaustive list of unrelated and unspecific proteins. Instead A61K38/00 is given as additional information.

For gene therapy, an appropriate A61K38/00 classification is given for the protein or peptide used in the gene therapy method, together with an A61K48 symbol. The same applies for the use of a nucleic acid encoding a specific protein, or of cells modified to produce a specific protein, for use in gene therapy: an invention information is given both in A61K38/00+ and A61K48/00+.

For vaccines comprising peptides or fragments thereof, if the therapeutic effect is clearly and exclusively a vaccine effect, no A61K38/00 classification is given. The vaccine is classified in A61K39/00 or one of its subgroups as appropriate.

References relevant to classification in this group

This subclass/group does not cover:

Single amino acids or single nucleic acids for use in therapy	A61K31/00
Medical use of non-coding nucleic acids, e.g. ribozymes, antisenses	A61K31/7084 - A61K31/713
Vaccines	A61K39/00
Stabilisation of proteins	A61K47/42
Peptides forming the non-active part of a conjugate	A61K47/48238
NMR contrast preparations containing peptides	A61K49/14
Preparations containing radioactive peptides for use in therapy	A61K51/08
Antibodies	C07K16/00
Enzymes per se	C12N9/00
Non-coding nucleic acids, e.g. ribozymes, antisenses	C12N15/113

Informative references

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

Proteins or peptides used in food	A23L
Cosmetic preparations containing proteins or peptides	A61K8/64
Medicinal preparations characterised by physical form	A61K9/00
Medicinal preparations containing material of undetermined constitution	A61K35/00
Proteins or peptides involved in bandages, dressings	A61L15/32, A61L26/0028
Proteins or peptides involved in surgical articles	A61L24/10, A61L31/043
Proteins or peptides involved in prostheses or coatings	A61L27/22
Proteins or peptides involved in catheters	A61L29/044
Proteins or peptides involved in antithrombogenic treatment of surgical articles	A61L33/00
Proteins or peptides per se	C07K
Methods for the preparation of peptides	C07K1/00
Enzymes per se	C12Y

Special rules of classification within this group

Each specific active component in a medical use claim is classified according to the last place rule.

Classification within this group is only given for the use of peptides or proteins (i.e. those present in the claims or exemplified in the description) as active agents.

The sole symbol for additional information classification is A61K38/00, without subdivisions. An invention information classification with the head symbol A61K38/00 should be avoided.

A fragment of a protein in a medical use claim is classified with its parent, if known. If the parent protein is not identified in the document to be classified, the fragment will be classified according to its length.

A nucleic acid encoding a protein in a medical use claim is classified under the protein it encodes.

In principle all specific compounds mentioned in the claims are classified. However, when there are too many compounds, as in the case of lengthy, exhaustive lists of proteins or peptides claimed for a therapeutic use, classification should be limited to a reasonable number of assignments covering e.g. the compounds tested or exemplified. Any generalisation which would lead to the next hierarchically higher level should be avoided. The therapeutic use of undefined proteins or peptides (no peptidic structure described) is not classified under A61K38/02 which is for the medical use of compounds of peptidic or proteic nature but of undefined length, e.g. polymers of repeated motifs of aminoacids of

undefined length, but nevertheless disclosed in the document.

Enzyme inhibitors in a medical use claim are classified within the A61K38/005 (enzyme inhibitors) or A61K38/55 (protease inhibitors) groups only if they are of peptidic structure. A61K38/005 or A61K38/55 should be assigned with another, more informative classification symbol: if the inhibitor is directly derived from the enzyme sequence itself, like for example an inhibitory enzyme fragment, it is also classified under the enzyme from which it is derived (A61K38/43 to A61K38/54); if the inhibitor is not disclosed in the document as being derived from a known enzyme, for example the inhibitor is synthetically produced and is clearly constituted of a sequence of amino acids (defined or not), it is classified under its length. The concept "enzyme inhibitors" without any specific example or given peptidic structure does not require classification within this group.

For mixtures or combinations: a classification symbol is given for each active ingredient in a medical use claim, followed by A61K2300/00 (Additional Information Symbol for mixtures) to create the corresponding Combination-set. This applies also if one mixture component is claimed per se.

Fusion peptides in a medical use claim are classified under A61K38/00 with the symbols of their components.

Important aspects of the invention mentioned only in the description should also be classified.

A61K47/00

Under: Relationship between section

Delete: First paragraph

Insert:

Galenical aspects of pharmaceutical compositions are classified in A61K9/00 and in A61K47/00. The last place rule does not apply between A61K9/00 and A61K47/00 - A61K47/46.

Under: Special rules section

Delete: All paragraphs

Insert:

Special rules of classification within this group

Classified are concrete, well-defined pharmaceutical compositions disclosed in the examples. Also classified are independent claims defining galenical aspects of a pharmaceutical composition or a medical use.

In principle all examples are classified, also 'standard' examples in documents describing e.g. a new medical use.

However, systematically classifying all excipients in the examples is not necessary, and often undesirable. In any case classified are excipients which are described as being important for the invention, or which the reader can identify as having an important function, e.g. for sustained release. For 'standard' compositions the examiner should choose one or a few excipients to classify.

Animal tests are not classified, unless it is absolutely clear that they represent the intended mode of administration.

The description and dependent claims are not classified. However, if the document as a whole focuses on one clearly preferred embodiment, this embodiment may be classified, even in the absence of relevant examples or independent claims.

In general, information relating to the invention is classified using invention information symbols, while additional information is classified using additional information symbols. This is largely up to the discretion of the examiner. Please note however the following special situations:

- Normally only final compositions are classified, not intermediates. However, it may be useful to classify intermediates as additional information (e.g. a tablet comprising microcapsules; a multicoated microparticle). If the intermediates are claimed separately, they must be classified as invention information.
- If, in the classification scheme, a group refers out to another group, an additional information symbol may still be given for the first group (e.g. oral mucoadhesive film).

A61K47/48

Under: Special rules section

Delete: All paragraphs

Insert:

Special rules of classification within this group

In the subgroups depending on A61K47/48, the classification is based on the non-active ingredient, i.e. the modifying agent, because it is dependent on the main group A61K47/00. In addition to this, for the conjugates of an antibody, the pharmacologically/therapeutically-active agent of the conjugate is also classified, in the subgroups of A61K47/48376. The modifying group must be part of a well-defined class of compounds. The last place rule does not apply in A61K47/48, i.e., all aspects of the invention are classified. For each aspect of the invention to be classified, the most detailed symbol is given as classification. Therefore, e.g. a liposome modified on its external surface by a modifying agent, is classified both in A61K47/48815 and in the appropriate A61K47/48 subclass (e.g. A61K47/48238 for a peptide/protein, the appropriate A61K47/48515 subclass for an antibody). Targeted drug delivery systems as defined in A61K47/4813, A61K47/48346 and /K A61K47/48723 comprise more than one component.

For example, in ADEPT, one component carries the enzyme to its target, and the other the prodrug. Although less detailed, the classification of conjugates in which the modifying component is a peptide follows a classification similar to that in the field of new peptides or proteins, i.e. C07K14/00 and subgroups. Similarly, the classification of conjugates in which the modifying component is an antibody, the classification of the characterising antibody follows a classification similar to that of new antibodies, C07K16/00 and subgroups, again less detailed. For the specificity of the antibody, the same rules are followed as for the classification in C07K16/00. For the specificity of the antibody, if the antibody is new, the corresponding class in C07K16/00 and subgroups is also given.

The active agent is also classified in A61K47/48 in two cases: 1. if the modifying agent is also active: 47/481, 47/48107, 47/48115, and in the case of sugars 47/48092 and 2. if the active agent is attached to an antibody as modifying agent: 47/48376 to 47/485.

A61K47/48092

Insert:

Definition statement

This subclass/group covers:

This subgroup includes sugar, nucleoside, nucleotide and nucleic acid modifying agents. If the modifying agent is also active and is a sugar, nucleoside, nucleotide or nucleic acid, it is also classified under this heading and NOT under A61K47/481. This is an exception to the Last Place Priority rule.

A61K47/481

Insert:

Special rules of classification within this group

If the modifying active agent is a suger (e.g. a nucleic acid), the conjugate is not classified in A61K47/481, but in A61K47/48092. This is an exception to the Last Place Priority rule.

2. B. DEFINITIONS QUICK FIX

Symbol	Location of change (e.g., section title)	Existing reference symbol or text	Action; New symbol; New text
A61K39/00	Special Rules	A61K39/85	A61K39/085
A61K8/0295	Informative References	Lyquid crystals in medicinal preparations	Liquid crystals in medicinal preparations

A61K31/00	Glossary of Terms	- does not encompass arylcycloalkyl-amine; - does not encompass arylalkenyl-amine; - does not encompass N-aryl,N-alkylamine;- encompasses hydroxy-substituted, keto-substituted or halo-substituted arylalkylamine as well as bis-arylalkylamine.	- does not encompass arylcycloalkyl-amine; - does not encompass arylalkenyl-amine; - does not encompass N-aryl,N-alkylamine; - encompasses hydroxy-substituted, keto-substituted or halo-substituted arylalkylamine as well as bis-arylalkylamine.
A61K31/00	Glossary of Terms	see definition given in Note under the title of C07J.	see definition given in the Note following the title of C07J.
A61K31/00	Glossary of Terms	see definitions given in the Notes under the title of C07H.	see definitions given in the Note following the title of C07H.
A61K35/00	Definition Statement	A61K35	A61K35/00
A61K35/00	Relationship between large subject matter areas	A61K35	A61K35/00
A61K35/00	Special Rules	A61K35	A61K35/00
A61K35/00	Glossary of Terms	A61K35	A61K35/00
A61K35/00	Glossary of Terms	K61K53/11	A61K2035/11
A61K39/00	References Relevant	The hypothetical use of new proteinaceaous antigens for immunization	The hypothetical use of proteinaceaous antigens for immunization
A61K39/00	Special Rules	The medicinal use of new proteinaceous antigens hypothetically useful for vaccination is classified only in C07K14/00 or C12N9/00, according to the origin of the protein, with addition of the Indexing Code A61K39/00.	The medicinal use of proteinaceous antigens hypothetically useful for vaccination is classified only in C07K14/00 or C12N9/00, according to the origin of the protein, with addition of the Indexing Code A61K39/00.
A61K39/00	Special Rules	A61K39/10	A61K2039/10
A61K39/00	Special Rules	A61K39/10A	A61K39/098
A61K39/00	Special Rules	A61K39/106	A61K2039/106
A61K39/00	Special Rules	A61K39/10A	A61K39/098
A61K41/00	References Relevant		Electrotherapy, Magnetotherapy, Radiation therapy, Ultrasound therapy A61N
A61K45/06	Informative References	Stents A61F2/06P	Stents A61F2/07

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

A61M1/00

Delete: Current definition

Insert:

References relevant to classification in this group

This group does not cover:

Implantable gland structures or devices, e.g. implantable artificial pancreas	A61F2/022
Irrigators; Enemata	A61M3/00
Syringes; Infusion devices	A61M5/00
Infusion devices using feedback of body parameters, e.g. blood-sugar, pressure, artificial pancreas	A61M5/1723
Sprayers or atomizers	A61M11/00
Inhalators	A61M15/00
Respirators	A61M16/00
Drainage appliances for wounds	A61M27/00
Dilators	A61M29/00
Devices for introducing or retaining media	A61M31/00
Devices for applying media	A61M35/00
In vitro human cell grow apparatus	C12M3/00

Informative references

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

Devices for taking samples of blood	A61B5/14
Implements for holding wounds open	A61B17/02
Saliva removers for dentists	A61C17/04
Filters implantable into blood vessels	A61F2/01
Devices worn by the patient for reception of urine, faeces, catamenial or other discharge	A61F5/44
Non-implantable gland structures or devices, e.g. non-implantable artificial pancreas	A61M1/3489, A61M1/3679, A61M1/3689
Catheters	A61M25/00
Tube connectors, tube couplings, valves or branch units specially adapted for medical use	A61M39/00
Tissue or organ culture	C12N5/0671

Pumps in general	F04B, F04C, F04D, F04F

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

The "orthogonal" Indexing Code symbols (A61M2202/00-A61M2250/00) are also used.

A61M3/00

Delete: Current Special rules section

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field. The "orthogonal" Indexing Codes scheme is also used.

Further details of subgroups

A61M3/0204

A61M3/0208

A61M3/0212

A61M3/0216

A61M3/022

A61M3/027

catheter holding devices see A61M25/02

A61M3/0279

colostomy with irrigation port see A61F5/442

A61M3/0283

This group does not cover devices whose main object is suctioning and which moreover have irrigation means, these are classified in A61M1/0084

A61M3/0287

spraying on the skin: A61H9/0021

surgical drapes with drain fluid collection means A61B2019/106

splash shields for protection of the surgeon: A61B19/42

glossary: splash shield

A61M3/06

bidets in general see E03D9/08

Insert: In the References relevant section , as the second table row

Pistons	A61M5/315

A61M5/00

Delete: Current References relevant and Informative references sections

Insert:

References relevant to classification in this group

This group does not cover:

Devices for transducing body media or for taking media from the body	A61B5/00, A61B5/15
Introducing media into/onto bodies of animals	A61D7/00
Implantable gland structures or devices, e.g. implantable artificial pancreas	A61F2/022
Containers for medicinal or pharmaceutical purposes	A61J1/00
Suction devices for medical purposes, blood pumps, blood filters…	A61M1/00
Catheters	A61M25/00
Medicinal preparations	A61K35/00
In vitro human cell grow apparatus	C12M3/00

Informative references

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

Measuring of body parameters	A61B5/00
Syringes for taking blood samples	A61B5/14
Surgical glue applicators	A61B17/00491

Syringes for injecting impression materials	A61C9/0026
Ampoules or carpules	A61J1/06
Combination of vial and syringe for mixing or transferring their contents	A61J1/2096
Blood transfusion	A61M1/02
Means for agitating	A61M1/025
Blood oxygenators	A61M1/14
Hemofiltration equipment	A61M1/34
Blood filters	A61M1/34, A61M1/36
Non-implantable gland structures or devices, e.g. non-implantable artificial pancreas	A61M1/3489, A61M1/3679, A61M1/3689,
Temperature treatment for blood	A61M1/369
Infusion devices using feedback of body parameters, e.g. blood-sugar, pressure, artificial pancreas	A61M5/1723
Connecting catheter tubes to hubs	A61M25/0014
Guide needles for catheters	A61M25/065
Diffusion through the skin	A61M35/00
Microneedles	A61M37/00
Access sites	A61M39/02
Detecting tissue temperature for diagnostic purposes	A61M39/0247
Y-connectors	A61M39/10
Pressure measurement lumen	A61M2025/0003
Making filter elements	B01D29/111
Burettes, measuring cylinders for laboratory use	B01L3/02
Heating or cooling in general	B01L7/00
Disintegrating medical waste	B02C19/0075
Disposal of medical waste in general	B09B3/0075
Making of hollow needles	B21G1/08
Grinding sharp-pointed work pieces	B24B19/16
Filling of medical containers in general	B65B3/003, A61J1/20
Pressurized by contraction of elastic reservoir, in general	B65D83/0061
Receptacles for refuse disposal in general	B65F1/00
Cell injection devices	C12M3/006
Linear peristaltic pumps, in general	F04B43/12
Telescopic rods	F16B7/10
Valves in general	F16K
Heat exchange in general	F28C, F28D, F28F, F28G
Hypodermic projectiles	F42B12/54
Apparatus of the syringe type	G01F11/027
Indicating or measuring liquid levels	G01F23/292
Medical informatics	G06F19/30

Systems or apparatus for checking the occurrence of a condition	G07C11/00
Holders comprising label	G09F3/0295
Holders for storage of radioactive sources	G21F5/018
Heating by electric fields	H05B6/80

A61M5/2422

Insert:

Special rules of classification within this group

not used, see subgroups and A61M5/24

A61M16/00

Delete: Current Special rules section

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61M16/0051

Delete: Current Special rules section

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field.

A61M16/01

Delete: Current Definition statement

Insert:

Definition statement

This group covers:

Ventilation devices used for anaesthesia.

These devices include in general a closed circuit generally including a CO2 absorber.

A61M19/00

Delete: Current Special rules section

Insert:

Special rules of classification within this group

The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also to be used for classifying the additional information. They are stored in the additional information field. The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field." The "orthogonal" Indexing Code symbols are also used.

A61M25/00

Delete: Current Special rules section

Insert:

Special rules of classification within this group

Due to the more general character of the main group A61M25/00 and its sub groups, there is an overlap with several different sub classes (A61B, A61F, A61N, A61J, A61K, A61L) and main groups, especially with the main groups A61B17/00 (Surgical instruments, devices or methods), A61B18/00 (Surgical instruments, devices or methods for transferring non-mechanical forms of energy to or from the body) and A61B19/00 (Instruments, implements or accessories for surgery or diagnosis not covered) and their sub groups.

The difference should be made by the following (an example is given for surgical uses, but is valid for other uses as well, e.g. catheters for use in stent delivery see A61F2/95, endoscopes see A61B1/00, catheters for use as feeding tubes A61J15/00):

If the technical feature, which appears to be the invention, is disclosed only in relationship with a surgical use, respectively adapted only for surgical use, it should be classified as invention information in the relevant sub group/sub groups of A61B17/00, A61B18/00 or A61B19/00.

If this technical feature appears to add a beneficial contribution to the documentation in A61M25/00, then classify it as additional information in the relevant sub group/sub groups of A61M25/00.

If the technical feature, which appears to be the invention, is disclosed in a general way, i.e. only one embodiment relates to a surgical use, or other uses are disclosed equivalently, then it should be classified as invention information into the relevant sub group/sub groups of A61M25/00.

If this technical feature appears to add a beneficial contribution to the documentation in A61B17/00, A61B18/00 or A61B19/00, then classify it as additional information in the relevant sub group/sub groups of A61B17/00, A61B18/00 or A61B19/00.

In doubt please classify in more sub classes, main groups and/or sub groups, rather than in too less.

A61M25/0105

Delete: In the References relevant section, the following reference:

"K61B19/00M2C"

Insert: The following paragraphs in the Special Rules section after the existing paragraph

Special rules of classification within this group

Steering mechanisms of endoscopes (steering of the whole endoscope body) should be classified as the following:

If the technical feature, which appears to be the invention, is disclosed in a general way, i.e. not limited only to the use with an endoscope, then it should be classified as invention information in A61M25/0105.

If the technical feature, which appears to be the invention, is limited only to the use with an endoscope, but it appears to add a beneficial contribution to the documentation in A61M25/0105, then classify it as additional information in A61M25/0105.

A61M25/0133

Insert:

Special rules of classification within this group

Steering mechanisms of endoscopes (steering of the endoscope tip only) should be classified as the following:

If the technical feature, which appears to be the invention, is disclosed in a general way, i.e. not limited only to the use with an endoscope, then it should be classified as invention information in A61M25/0133 and its sub groups.

If the technical feature, which appears to be the invention, is limited only to the use with an endoscope, but it appears to add a beneficial contribution to the documentation in A61M25/0133 and its sub groups, then classify it as additional information in A61M25/0133 and its sub groups.

A61M27/00

Insert:

Special rules of classification within this group

The term “wound” covers all injuries of the skin which originate from the impact of outer forces to the body, e.g. during a surgery, during an accidents.

A61M2202/04

Insert:

Special rules of classification within this group

These symbols are often used with the symbols A61M2202/0007 - A61M2202/092 in combination sets.

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
A61M	Special rules of classification within this subclass		Add paragraph at end: The breakdown symbols (i.e. the non "parallel" or non "mirror" symbols) and "orthogonal" symbols are to be used for classifying the invention information (in addition to the invention symbols) in case the invention is insufficiently classified by an invention information symbol. They are also

			to be used for classifying the additional information. They are stored in the additional information field.
A61M3/00	References relevant	Devices (e.g. syringes, needles) for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way	Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way, e.g. syringes, needles
A61M5/00	Special rules	-A61B5/14F	Delete
A61M27/00	Informative references	A61M25/00T20A1I	A61M2025/0078

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

B60R19/02

Insert:

References relevant to classification in this group

This group does not cover:

Bumpers for damping bouncing force in truck collisions	B60R19/56
Initiating brake action by contact of bumper with an external object	B60T7/22
Bumpers for rail vehicles	B61F19/04
Safety equipment, e.g. crash bars, for cycles	B62J27/00
Fenders integral with waterborne vessels or specially adapted therefor	B63B59/02

2. A. DEFINITIONS (i.e. new or modified)

B65D

Insert: in the subclass definition

Special rules of classification within this subclass

The following orthogonal Indexing Codes are obligatory and applied to documents in B65D1/00 to B65D85/84 groups, however only if not covered by another Invention Information group, i.e. any of the B65D1/00 to 85/84 groups takes precedence.

B65D2101/00 - tamper indicating means, the following subgroups take precedence: B65D41/32, B65D43/0235, B65D51/20, B65D55/02

B65D2201/00 - general orthogonal codes, may be used in B65D1/00 to B65D85/84 groups

B65D2301/00 - general orthogonal codes, may be used in B65D1/00 to B65D85/84 groups.

The following orthogonal codes are obligatory and are used only with the group(s) they relate to:

B65D2501/00 - bottles, B65D1/02 groups

B65D2501/24 - bottle crates, B65D1/24 groups

B65D2517/00 - cans, beverage cans, B65D17/00 groups

B65D2519/00 - pallets, B65D19/00 & sub-groups

B65D2525/00 - details of rigid or semi-rigid containers, e.g. handles, B65D25/00 groups

B65D2539/00 - corks, stoppers, B65D39/00 groups

B65D2543/00 - lids, covers, B65D43/00 groups

B65D2547/00 - closures with filling or discharging devices, e.g. pour spouts, B65D47/00 groups

B65D2555/00 - accessories for closures, B65D55/00 groups

B65D2563/00 - straps, e.g. for bundling, B65D63/00 groups

B65D2565/00 - special materials, e.g. recyclable or recycled, B65D65/00 groups

B65D2571/00 - pallettisable loads, bundling wrappers or trays , B65D71/00 groups

B65D2575/00 - packages comprising articles enclosed between sheets or blanks, B65D75/00 groups

B65D2577/00 - container within a container; container closures formed after filling, B65D77/00 groups

B65D2581/00 - corner or edge protectors; microwave heating packages, B65D81/00 groups

B65D2583/00 - containers or packages with means for dispensing; pill dispensers, B65D83/00 groups

B65D2585/00 - pizza boxes; contact lenses containers for bulky articles; containers for machines, engines, or vehicles, B65D85/00 groups

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
B65D81/00	Definition Statement		Containers, packaging elements, or packages, for contents presenting particular transport or storage problems, or adapted to be used for non-packaging purposes after removal of contents
B65D81/00	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/025	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/03	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/05	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/051	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/052	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/053	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/07	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/075	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/09	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/107	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/1075	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/113	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/127	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/1275	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/133	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/20	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2007	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2015	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2023	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2046	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2061	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/2069	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/22	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/24	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/245	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/26	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/261	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/262	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)

B65D81/263	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/264	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/265	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/266	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/267	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/268	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/30	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/32	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3205	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3211	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3216	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3222	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3227	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3233	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3238	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3244	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/325	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3255	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3261	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3266	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3272	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3277	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3283	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3288	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3294	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/34	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3407	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3415	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3423	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/343	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3438	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3446	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3453	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3469	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3484	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3492	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/36	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/363	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/365	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/366	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/38	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3811	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3816	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3818	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/382	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3823	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3825	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3827	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/383	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3832	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3834	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3839	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3841	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3846	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)

B65D81/3851	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3853	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3858	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/386	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3862	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3865	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3867	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3869	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3874	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3879	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3881	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3886	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3893	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)
B65D81/3897	Special Rules	ALSO USED AS Indexing Code	(Deleted Entire Section)

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

C07K16/00

Delete: Definition Statement and Special rules sections

Insert:

Definition statement

This subclass/group covers:

Antibodies, immunoglobulins and proteins derived therefrom that bind a specific antigen, and have as minimal structural features an immunoglobulin framework and three CDRs (i.e. a variable domain). In addition, antibody mimetics and scaffolds that bind a specific antigen. Where appropriate, the term antibody as used in these definitions also encompasses said antigen-binding mimetics and scaffolds. The terms antibodies and immunoglobulins are often used interchangeably.

This maingroup covers the following aspects of antibodies:

- Structure

- Production

- Specificity

- Cells producing the antibody, e.g. hybridomas producing a monoclonal antibody

- DNA/RNA encoding an antibody

- Therapeutic and prophylactic use

- Diagnostic use and use for detection

- Fusion proteins comprising at least the antigen-binding region of an antibody

- Antibody mimetics and scaffolds.

Special rules of classification within this group

At least one group is mandatory, Additionally, one or more indexing codes may be given. Both the at least one group and the indexing code(s) are mandatory for relevant and sufficiently disclosed aspects, e.g. for aspects actually disclosed in examples and not just casually claimed or generally referred to in the description. With regard to the specificity of an antibody for an antigen, the "last-place-rule" does not apply.

(1) Antibody and/or fragments or derivatives thereof, i.e. the product per se. Emphasis is on the antigen specificity of the antibody.

A group in C07K16/00 (classified according to specificity), see the following examples:

- C07K16/08 (against material from viruses)

- C07K16/081 or subgroups thereof (against material from DNA viruses)

- C07K16/10 or subgroups thereof (against material from RNA viruses)

- C07K16/12 or subgroups thereof (against material from bacteria)

- C07K16/14 (against material from fungi, algae or lichens)

- C07K16/16 (against material from plants)

- C07K16/18 (against material from animals or humans)

- C07K16/20 (against material from protozoa)

- C07K16/22 (against growth factors)

- C07K16/24 or subgroups thereof (against cytokines, lymphokines or interferons)

- C07K16/26 (against hormones)

- C07K16/28 or subgroups thereof (against receptors)

- C07K16/30 or subgroups thereof (against tumor antigens)

- C07K16/32 (against translation products of oncogenes)

- C07K16/34 (against blood group antigens)

- C07K16/36 (against blood coagulation factors)

- C07K16/38 (against protease inhibitors of peptide structure)

- C07K16/40 (against enzymes)

- C07K16/42 or subgroups thereof (against immunoglobulins)

- C07K16/44 (against material not provided for elsewhere, e.g. haptens, metals, DNA, RNA, individual amino acid residues, phosphorylated residues)

Note: If an antigen that, under "normal/benign" conditions, justifies a class for the specifically binding antibody in the C07K16/08 - C07K16/28 and C07K16/34-C07K16/44 ranges, is disclosed to be (over)expressed under malignant conditions (e.g. in or on a tumor cell), then an additional antibody class in the C07K16/30 - C07K16/32 (i.e. antibodies against tumor, resp. oncogene antigens) ranges should be given.

(2) Antibody or fragments or derivatives thereof. Emphasis is on a new technique of the construction of the immunoglobulin molecule or derivative thereof.

- C07K16/00 (general) or C07K16/005 (phage display)

- Optionally a group in C07K16/00 (for the specificity, if in an example)

(3) DNA/RNA encoding an antibody or a fragment thereof.

- A group in C07K16/00 (for the specificity)

- No indexing code used for the aspect of DNA/RNA.

(4) Hybridoma producing a monoclonal antibody. Emphasis is on the antigen specificity of the monoclonal antibody.

- A group in C07K16/00 (for the specificity)

- No indexing code used for aspect of hybridoma.

(5) Hybridoma producing a monoclonal antibody. Emphasis is on the technique of producing the hybridoma.

- A group in C12N5/00 (for the hybridoma cell) and/or

- A group in C12N15/00 (for the hybridoma technique)

- Optionally a group in C07K16/00 (for the specificity, if there is an example)

(6) Fusion protein of (at least an antigen-binding part of) an antibody + a non-antibody protein. Not to be confused with â€˜synthebodiesâ€™, see further below.

- A group in C07K16/00 (for the specificity of the antibody part)

- A group in C07K14/00 (for the non-antibody part)

- Indexing code C07K2319/00 (fusion protein)

(7) Fusion protein of an Fc-region of an immunoglobulin + a non-antibody protein.

- A group in C07K14/00 (for the non-antibody part)

- Indexing code C07K2319/30 (Fc fused to non-Ig)

(8) Chemical conjugate of (at least an antigen-binding part of) an antibody + a toxin or drug.

- A group in C07K16/00 (for the specificity) and

- A61K47/48369 or subgroups thereof (if the antibody contains a drug or toxin for use in therapy in vivo) and/or

- A61K51/10 or subgroups thereof (if the antibody contains a radioactive substance for use in therapy in vivo)

(9) Chemical conjugate of (at least an antigen-binding part of) an antibody + a detectable label.

- A group in C07K16/00 (for the specificity) and

- G01N33/53 or subgroups thereof (if the antibody is for use in detection in vitro) and/or

- A61K51/10 or subgroups thereof (if the antibody contains a radioactive substance for use in detection in vivo) and/or

- A61K49/0058 (if the antibody contains a fluorescent label for use in detection in vivo) and/or

- A61K49/16 (if the antibody contains a nuclear magnetic resonance label for use in detection in vivo)

(10) Therapeutic use of a single antibody or a therapeutic composition comprising a single antibody.

- A group in C07K16/00 (for the specificity), and

- Indexing code A61K2039/505 (therapeutic use of an antibody, but only if in an in vivo example (this includes pharmacokinetic studies). Note: Because at the date of classification it is not foreseeable how plausible an in vitro assay will be for the assessment of therapeutic effectiveness, in vitro examples, including those that make in vivo therapeutic effectiveness plausible, should be classified in the C07K2317/70 series, see below), and/or

- Optionally indexing code A61K2039/54 (route of administration, but only if important), and/or

- Optionally indexing code A61K2039/545 (dose, timing or administration schedule, but only if important), and/or

- Optionally indexing code A61K2039/57 (type of response, e.g. TH1- or TH2-type T cell response).

(11) Therapeutic use of a combination of two or more antibodies or a therapeutic composition comprising two or more antibodies. Said antibodies have an additive or synergistic effect, and the antibodies may be given as a mixture or consecutively. This should not to be confused with a mixture of an antibody with a non-antibody, see below.

- A group in C07K16/00 (for the specificity of the first antibody), and

- A group in C07K16/00 (for the specificity of the second antibody), and

- Indexing code A61K2039/507 (therapeutic use of an antibody combination. Note: said code may not only be given for an in vivo example, but also if shown in an in vitro example), and/or

- Optionally indexing code A61K2039/54 (route of administration, but only if important), and/or

- Optionally indexing code A61K2039/545 (dose, timing or administration schedule, but only if important), and/or

- Optionally indexing code A61K2039/57 (type of response, e.g. TH1- or TH2-type

response).

(12) Therapeutic combinations of antibodies (or fragments thereof) + non-antibody proteins, or compositions comprising these combinations.

- A61K39/395 or subgroups thereof +A61K2300/00, A61K39/40+A61K2300/00 or A61K39/42+A61K2300/00, and

- A group in A61K38/00 (for the non-antibody protein)

- A group in C07K16/00 (for the specificity).

(13) Therapeutic combinations of antibodies (or fragments thereof) + structurally undefined (e.g. functionally defined) compounds, or compositions comprising these combinations.

- A61K39/395 or subgroups thereof +A61K2300/00, A61K39/40+A61K2300/00 or A61K39/42+A61K2300/00, and

- A61K45/06 (for the structurally undefined compound)

- A group in C07K16/00 (for the specificity).

(14) Therapeutic combinations of antibodies (or fragments thereof) + blood-derived cells, or compositions comprising these combinations.

- A61K39/395 or subgroups thereof +A61K2300/00, A61K39/40+A61K2300/00 or A61K39/42+A61K2300/00, and

- A61K35/14 (for the blood-derived cells)

- A group in C07K16/00 (for the specificity).

(15) Diagnostic use of an antibody, or a diagnostic composition comprising an antibody. Emphasis is on the antigen specificity, not on the assay technique.

- A group in C07K16/00 (for the specificity)

- No indexing code used for aspect of diagnosis.

(16) Diagnostic use of an antibody, or a diagnostic composition comprising an antibody. Emphasis is on a new assay technique. The antigen specificity may not be crucial.

- G01N33/53 or subgroups thereof.

- A group in C07K16/00 (for the specificity, if there is an example).

(17) Antibody isolated from eggs. Emphasis is on the isolation technique, not on the antigen specificity.

- C07K16/02 (for the isolation technique from eggs), and

- A group in C07K16/00 (for the specificity, if in an example)

(18) Antibody isolated from eggs. Emphasis is on the antigen specificity, not on the

technique of isolation.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/11 (antibody isolated from eggs)

(19) Antibody isolated from milk. Emphasis is on the isolation technique, not on the antigen specificity.

- C07K16/04 (for the isolation technique from milk), and

- Optionally a group in C07K16/00 (for the specificity, if in an example)

(20) Antibody isolated from milk. Emphasis is on the antigen specificity, not on the technique of isolation.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/12 (antibody isolated from milk)

(21) Antibody isolated from serum. Emphasis is on the isolation technique, not on the antigen specificity.

- C07K16/06 (for the isolation technique from serum), and

- Optionally C07K16/00 (for the specificity, if in an example)

Note: The term "serum" should be interpreted widely and includes blood and plasma as well. In practice, the subgroup C07K16/065 is used more often and relates to the purification (e.g. by chromatography, filtration) and fragmentation (e.g. by enzymatic digestion) of the immunoglobulin.

(22) Antibody isolated from plants. Emphasis is on the antigen specificity, not on the technique of isolation.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/13 (antibody isolated from plants)

(23) Antibody characterized by their source of isolation or production. Emphasis is on the protein-expression technique, e.g. to improve yield, purity or glycosylation, e.g. by using specific host-cells, vectors, additives or culture conditions.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/14 (source of isolation, production)

(24) Antibody according to its taxonomic origin.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/20 (general aspects of origin), and/or

- Indexing code C07K2317/21 (fully primate or fully human, including fully human

antibodies produced by transgenic animals, e.g. by XenomouseÂ®), and/or

- Indexing code C07K2317/22 (fully camelid), and/or

- Indexing code C07K2317/23 (fully avian)

(25) Antibody comprising immunoglobulin-regions, -domains or -residues from more than one species, e.g. chimeric, humanized or veneered antibody. Emphasis is on a new technique of construction, not on the antigen specificity.

- C07K16/461â€¦. (for the technique), and

- A group in C07K16/00 (for the specificity, if in an example)

(26) Antibody comprising immunoglobulin-regions, -domains or -residues from more than one species, e.g. chimeric, humanized or veneered antibody. Emphasis is on the antigen specificity, not on the technique of construction.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/24 (chimeric, humanized, veneered antibody)

(27) Antibody characterized by general aspects of specificity or valency.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/30.

(28) Multispecific (i.e. including bispecific) antibody. Emphasis is on a new technique of construction, not on the antigen specificity.

- C07K16/468 or subgroup thereof (for the technique of bispecific antibodies), and

- A group in C07K16/00 (for the first specificity, if in an example), and

- A group in C07K16/00 (for the second specificity, if in an example), and

- Optionally a group in C07K16/00 (for any additional specificity, if in an example)

(29) Multispecific (i.e. including bispecific) antibody. Emphasis is on the antigen specificity, not on the technique of construction.

- A group in C07K16/00 (for the first specificity), and

- A group in C07K16/00 (for the second specificity), and

- Optionally, a group in C07K16/00 (for any additional specificity, if in an example *), and

- Indexing code C07K2317/31 (multispecific antibody)

(30) Antibody specific for a neo-epitope formed by a complex, e.g. antibody-antigen, ligand-receptor. The antibody is monospecific, not bispecific !

- A group in C07K16/00 (for the first component of the complex), and

- A group in C07K16/00 (for the second component of the complex), and

- Indexing code C07K2317/32 (to indicate specificity for the complex)

(31) Antibody characterized by its crossreactivity (e.g. for species or epitope) or lack of crossreactivity.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/33 (for the aspect of crossreactivity or explicit lack thereof).

(32) Antibody characterized by its specificity for a well-defined epitope or immunogen which is either linear and shorter than 20 amino acid residues, or conformational and defined by amino acid residues.

- A group in C07K16/00 (for the specificity for the antigen), and

- Indexing code C07K2317/34 (linear epitope <20 AA residues or conformational epitope defined by AA residues)

(33) Antibody characterized by its valency, and wherein the fact that the molecule is monovalent, bivalent or multivalent is an important feature.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/35 (for the aspect of valency, but only if important).

(34) Antibody characterized by its post-translational modification.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/40 (for the aspect of post-translational modification).

(35) Antibody wherein the presence, absence or modification by glycosylation, sialylization, fucosylation is an important feature.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/41 (glycosylation, sialylization, fucosylation)

(36) Antibody characterized by immunoglobulin fragments.The mere provision of an amino acid or nucleotide sequence is not enough to justify one or more of the following codes:

- A group in C07K16/00 (for the specificity of the antigen binding part), and

- Indexing code C07K2317/50 (fragments in general), and/or

- Indexing code C07K2317/51 (complete heavy chain or Fd fragment), and/or

- Indexing code C07K2317/515 (complete light chain), and/or

- Indexing code C07K2317/52 (Fc or constant region, isotype), and/or

- Indexing code C07K2317/522 (CH1), and/or

- Indexing code C07K2317/524 (CH2), and/or

- Indexing code C07K2317/526 (CH3), and/or

- Indexing code C07K2317/528 (CH4), and/or

- Indexing code C07K2317/53 (hinge), and/or

- Indexing code C07K2317/54 (F(abâ€™)2), and/or

- Indexing code C07K2317/55 (Fab or Fabâ€™), and/or

- Indexing code C07K2317/56 (variable = Fv), and/or

- Indexing code C07K2317/565 (CDR), and/or

- Indexing code C07K2317/567 (framework = FR), and/or

- Indexing code C07K2317/569 (single domain = sdAb or dAb)

Note: The mere provision of an amino acid or nucleotide sequence per se of the above fragment is not enough to justify one or more of the above-mentioned indexing codes, unless said fragment is actually manufactured or modified.

Note: If features of both CDRs (or individual residues therein) and FRs (or individual residues therein) are modified, then both the C07K2317/565 and C07K2317/567 codes should be given, and not the general C07K2317/56 code. The C07K2317/56 code should be given if the focus is on the intact VH and/or VL domain(s)..

Note: Indexing codes in the C07K2317/522-C07K2317/53 series should only be given for features, e.g. modifications, concerning these specific domains; otherwise the C07K2317/52 code should be given. Said specific domains need not necessarily be in isolated form, but may be in the context of their immunoglobulin molecule or fragments thereof.

(37) Antibody characterized by non-natural combinations of immunoglobulins or fragments.This includes fusion proteins and chemically linked immunoglobulins or their fragments. Excluded are chimeric, humanized or veneered antibodies (see above).

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/60 (general aspects), and/or

- Indexing code C07K2317/622 (single chain = scFv), and/or

- Indexing code C07K2317/624 (disulfide stabilized variable = dsFv), and/or

- Indexing code C07K2317/626 (diabody, triabody), and/or

- Indexing code C07K2317/64 (comprising a combination of variable region and constant region components), and/or

- Indexing code C07K2317/66 (comprising a swap of domains, e.g. CH3-CH2, VH-CL, VL-CH1).

- Optionally indexing code C07K2319/00 (if fusion protein)

(38)Antibody characterized by an effect upon binding to a cell or to an antigen

- A group in C07K16/00(for the specificity), and

- Indexing code C07K2317/71 (decreased effector function due to an Fc-modification), and/or

- Indexing code C07K2317/72 (increased effector function due to an Fc-modification), and/or

- Indexing code C07K2317/73 (induction of cell death, e.g. apoptosis, necrosis; inhibition of cell proliferation), and/or

- Indexing code C07K2317/732 (antibody-dependent cellular cytotoxicity (ADCC)), and/or

- Indexing code C07K2317/734 (complement-dependent cytotoxicity (CDC)), and/or

- Indexing code C07K2317/74 (induction of cell proliferation), and/or

- Indexing code C07K2317/75 (agonist effect on antigen), and/or

- Indexing code C07K2317/76 (antagonist effect on antigen, neutralization, inhibition of binding), and/or

- Indexing code C07K2317/77 (internalization into the cell).

(39) Antibody characterized by remaining in the (producing) cell, i.e. intracellular antibody = intrabody

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/80 (general aspects), and/or

- Indexing code C07K2317/81 (intracellular antibody functional in the ER or Golgi apparatus), and/or

- Indexing code C07K2317/82 (intracellular antibody functional in the cytoplasm, the nucleus, the mitochondria, the inner part of the cell membrane)

(40) Antibody characterized by(pharmaco)kinetic aspects or stability of the immunoglobulin.

- A group in C07K16/00 (for the specificity), and

- Indexing code C07K2317/90 (general aspects), or

- Indexing code C07K2317/92 (for affinity (KD), association rate (Ka), dissociation rate (Kd), EC50 value), or

- Indexing code C07K2317/94 (stability of antibody per se, e.g. half-life, pH-, temperature- or enzyme-resistance; Note: for storage stability due to additives in an antibody composition, see A61K39/39591).

(41) Antibody mimetics and scaffolds.

- A group in C07K16/00 (for the specificity of the inserted antigen binding sequences from antibodies), and

- Indexing code C07K2318/00 (general aspects of antibody mimetics and scaffolds)

(42) Immunoglobulin or domain(s) thereof as scaffolds for inserted non-immunoglobulin peptide sequences, e.g. for vaccination purposes, e.g. synthebody.

- A group in C07K14/00 (for the non-immunoglobulin protein that is inserted), and

- A group in C07K16/00 (for the specificity of the immunoglobulin scaffold), and

- Indexing code C07K2318/10 (to indicate the combination of immunoglobulin scaffold molecules with inserted non-immunoglobulin peptide sequences)

(43) Antigen-binding scaffold molecules wherein the scaffold is not an immunoglobulin variable region, antibody mimetics.

- A group in C07K14/00 (for the non-immunoglobulin protein that provides the scaffold).

- A group in C07K16/00 (for the antibody-like specificity of the scaffold molecule).

- Indexing code C07K2318/20 (for scaffold molecules with antigen binding properties)

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
C07K16/00	Informative references		Add row: Medicinal preparations containing antigens — A61K39/00
C07K16/00	Synonyms and Keywords	version V4 of 28.02.2012	*(delete)*

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

C08J

Insert:

Relationship between large subject matter areas

Adhesive sheets are classified in C09J7/00

C08J3/18

Insert:

Definition statement

This group covers:

This group covers the process of treating polymers with plasticizers in order to modify thermal and mechanical properties of the polymer

Relationship between large subject matter areas

Plasticizers as such are classified in C08K

C08J5/18

Delete: Definition statement section

Insert:

Definition statement

This group covers:

The manufacture of self-standing monolayers films or sheets characterised by chemical features or parameters:

Self-standing films are to be understood as films which are different from films made by coating on substrate.

The mechanical aspect of the formation of films (extrusion, blow-moulding) is not covered

under C08J5/18.

The films as such are also covered by C08J5/18

Porous or microporous films are covered by C08J5/18 when the pores are obtained mechanically

Insert:

Relationship between large subject matter areas

Adhesive sheets are classified in C09J7/00

Optical sheets are classified in G02B

Prepregs are classified in C08J5/24

C08J9/00

Delete: Current Special rules section

Insert:

Special rules of classification within this group

The blowing or foaming agents involved are classified in C08J9/02 - C08J9/149

- The foaming processes are classified in C08J9/16 - C08J9/35
- The post-treatment of the foam is classified in C08J9/36 - C08J9/42

In the absence of an indication to the contrary, classification is made in the last appropriate place. Example: Halogenated phosphoric compound as additive is classified in C08J9/0038

Documents belonging to several subgroups are also classified in the "one dot less" subgroup. Example: The combination of brominated flame retardant and phosphoric compound is classified in C08J9/0019, C08J9/0038 and C08J9/0014.

The use of water as sole blowing agent for (poly)isocyanate-containing foams is regarded as trivial. It is not classified in C08J.

Mixtures of organic and inorganic blowing agents are classified in C08J9/127 and each blowing agent of the mixture is also classified according to its nature.

Foams are subdivided according to the involved polymer(s) using the C08L IPC scheme:

When a foam is a.o. characterized by the involved polymer(s),

then Indexing Codes of the C08J2300/00-C08J2399/00 are given, in order to specify said

polymer(s).

The structure of the C08J2300/00 classification is mainly based on the classification of C08L.

Example: C08J2325/06 corresponds to C08L25/06 (polystyrene) Additionally, C08J2300/00 to C08J2300/30 specify polymers which are broadly defined.

When a document deals with one single polymer or several alternative polymers, but no polymer blend, then an Indexing Code of the C08J2300/00 range is used.

Examples: The use of an alkane blowing agent for expanding polystyrene is classified in C08J9/141 and C08J2325/06.

The use of alkane blowing agent for expanding polystyrene or polyethylene is classified in C08J9/141, and C08J2325/06 and C08J2323/06.

Further subdivisions:

This subgroup is only allocated when, in addition to a "main" polymer, a second or third polymer is present in the foamable blend. This second or third polymer is always in minority, compared to the main polymer.

- - Please see the Rules under C08J9/00.

As above, the "main" polymer is indexed using C08J2300/00-C08J2399/00..

- - The polymeric component in minority is indexed using C08J2400/00-C08J2499/00..

Example: A foam from a blend or 80% polystyrene and 20% PMMA is classified in C08J9/0061, C08J2325/06 and C08J2433/12.

- When overlapping ranges of two polymers are claimed or exclusively exemplified, then "mirror classification" is given.

Example: A foamable blend of 80-20% polystyrene and 20-80% polyethylene is classified in C08J9/0061 and C08J2425/06 and C08J2323/06, and C08J2423/06 and C08J2325/06.

Common sense says any C08J2300/00-C08J2399/00 can be used in combination with any C08J2400/00-C08J2499/00 to define the invention.

- Second and/or third polymers, only present in very low proportions may be ignored, provided their presence is not the key of the invention.

- Foam compositions wherein only the polymer in minority is defined are classified in C08J9/0061 and C08J2400/00-C08J2499/00.

Example: Foam comprising 10% polystyrene in 90% of another polymer is classified in C08J9/0061 and C08J2425/06.

C08J9/224

In these subgroups, Indexing Codes of the C08J2400/00-C08J2499/00 are used to

designate the polymer used for coating, binding or impregnating the foam (particle). The foam itself receives a C08J2300/00-C08J2399/00 code.

C08J9/33

In these subgroup, Indexing Codes of the C08J2400/00-C08J2499/00 are used to designate the foam fragments. The foamable (C08J9/35) or unfoamable matrix (C08J9/33) is specified using C08J2300/00-C08J2399/00.

C08J9/26

Indexing Codes C08J2201/04 to C08J2201/0484 are used in C08J9/26, for specifying the solid to be extracted.

Indexing Codes C08J2201/05 to C08J2201/0545 are used in C08J9/28, for specifying the first step of the separation process (cooling, evaporation, precipitation).

C08J9/127

Insert:

Special rules of classification within this group

Mixtures of organic and inorganic blowing agents are classified in C08J9/127 and each blowing agent of the mixture is also classified according to its nature

C08J9/16

Insert:

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

The term "Expandable particles" covers also expanding, pre-expanded or expanded particles

C08J9/22

Insert:

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

The term "Expandable particles" concerns also expanding, pre-expanded or expanded particles

C08J9/26

Insert:

Informative references

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

Lithographic processes	G03F7/00

2. B. DEFINITIONS QUICK FIX

Symbol	Location of change (e.g., section title)	Existing	New
C08J	Special rules of classification		Insert as first bullet of list: • In this subclass , at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place
C08J7/00	Definition statement	Chemical treatment or coating of polymeric substrates. The characteristic feature of this group, -as opposed to C09D- is the nature of the substrate, which has to be always polymeric.	C08J7/00 concern all types of treatments, chemical, physical and coating of shaped articles comprising polymeric substrates, i.e. continuous polymeric surfaces.
C08J7/00	Relationship		Add at end: Adhesive sheets are classified in C09J7/00 D06M15//00 relates to the coating of polymer fibres and D01F relates to the chemical treatment of fibres.
C08J7/123	Relationship		Add at end: C08J7/123 concerns the chemical modification of a polymeric substrate by electromagnetic radiation and the treated substrate may be coated during the treatment or at a later stage or not at all. Coatings based on the process of pre-treatment of polymers substrate are classified in B05D3/144. If the coating process is more directed to the chemistry of the coated layers, it's classified in C08J7/123.
C08J9/00	Definition statement	• The blowing or foaming agents involved (C08J9/02 - C08J9/149), • The foaming processes	Delete

		(C08J9/16 - C08J9/35), • The post-treatment of the foam (C08J9/36 - C08J9/42).	

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

C12N5/00

Delete: Definition statement

Insert:

Definition statement

This subclass/group covers:

- Animal cells, animal cell culture, differentiation in vitro are to be classified in C12N5/00, provided that such products and processes are characterized and exemplified in the application. A cell which is merely claimed without real and exemplified provision thereof shall not be classified in C12N5/00. This is the case - for example - where the examples only relate to differentiation of a stem cell to pancreatic cells, but where differentiation to hepatocytes or nerve cells is claimed. Then, only the differentiated pancreatic cells are classified. The other cells are not classified at all.
- CCA (additional information) **C12N500/00**-C12N2539/10 is compulsory. This relates to any specific and exemplified component of cell culture medium, active agent used in cell culture process, co-culture with or conditioned medium produced by, use of differentiation from one lineage to another or from pluripotent cells, use of cells in diagnostic, methods for the dissociation of cells, genetically modified cells, cells related to new breeds of animals, culture process characterized by the use of forces and support or coating for cells culture characterized by material, topography, treatment or properties. Any such additional information which is claimed but not exemplified is however not to be classified.
- Cells or tissues in medicinal preparations or for medical uses are classified in A61K35/12-A61K35/65 irrespective of genetic modification or culture steps. Cells that are medically used after a relevant in vitro culturing step are classified in A61K35/00 and C12N5/00.

Further details of subgroups

- C12N5/00

The highest rank head group is to be used only in desperate cases, for documents which do not fit elsewhere, e.g. culture processes characterised by temperature.

- C12N5/0006

By exception to the dividing line general 00/specific 06, documents describing the modification of membranes of a specific cell type are classified both in C12N5/0006 and C12N5/06 and subgroups.

- C12N5/0012

Only generic encapsulation here: Encapsulation of a specific cell type is C12N5/06 (and subgroups), A61K2035/126. C12N2533/00 codes may be used for the capsule material. Circulating the document to A61L27/00 and/or A61K47/00 should be considered. Encapsulation in fermenters is C12N13/00.Note that encapsulated hepatocytes and pancreatic cells have specific subgroups: C12N5/0671 and C12N5/0677.

- C12N5/0018

Generic media for potentially any type of cells. Culture processes using a particular agent are treated as a culture medium containing this agent (e.g. use of propranolol in cell culture: C12N5/0018, C12N2501/81). All documents should have at least one code from the range C12N2500/00- C12N2502/00, and possibly many of them.

Examples using CHO, 3T3, BHK or other common cell types should be regarded as generic disclosure and classified under C12N5/00 rather than under C12N5/06.

When a new medium is fully disclosed, most if not all C12N2500/00 codes potentially apply; codes should be given for any useful information, i.e. any specific component with a specific concentration range (e.g. Ala 20 µ, Pro 10 µ … is indexed C12N2500/32; reference to a standard composition of essential amino-acids as one component need not be indexed)—which can mean that many codes are actually given, but this appears to be the best way to retrieve reasonably quickly a document with a medium comprising, e.g., 10-100 nM Cu2+ or 20-75 µ Glu. It may not be necessary to index the most common additives (e.g. glutamine) and no code is foreseen for antibiotics, as these appear to be invariably present.

- C12N5/0031

Note that serum-free media for specific cell types are C12N5/06 (and subgroups), C12N2500/99.

- C12N5/0081

By “negative selection”• , it is meant that the document defines what is to be rejected but does not define in any positive manner what is to be retained. The combination of negative and positive markers is regarded as positive selection, and should normally allow to assign a specific type to the cells, and to classify in C12N5/06 (and subgroups). In practice, C12N5/0087 and C12N5/0093 deal with purging blood or bone marrow (but also, rarely, of other tissues) from, respectively, immune cells and tumour cells before transplantation; C12N5/0081 is thus very rarely used.

- C12N5/0068, C12N5/0075

Documents should have at least one C12N2533/00 Indexing Code. Supports for specific cell types are C12N5/06 (and subgroups), C12N2531/00-C12N2539/00.

- C12N5/06

This head group is not used! 06 implies that the teachings apply only to specific cells and it should always be possible to know whether the cells derive from vertebrates or

invertebrates.

General Considerations:

The scope of any sub-group comprises the cells of the title, any tissue explant essentially consisting of these cells (e.g. skin = keratinocytes = C12N5/0629), processes for isolating these cells (e.g. the definition of a set of markers to isolate a specific cell by FACS, but a document dealing with a specific antibody for one single marker can be classified solely in C07K16/00), processes for preparing these cells (culture, differentiation), culture media and/supports specifically adapted for these cells and medical uses of these cells (as far as the nature of the cells is known and is relevant; e.g. medical composition of cultivated pancreatic cells C12N5/0676, A61K35/12, "low-tech" composition of animal tissue extracts A61K35/00 and subgroups, photochemically-treated blood A61K41/0057, A61K35/14).

Controlled language: Title note of C12N5/06: In this group, the following words are used with the meanings indicated:

- a "totipotent" cell can differentiate into all somatic lineages (ectoderm, mesoderm, endoderm), the germ line and extra embryonic tissues such as the placenta;
- a "pluripotent" cell is a somatic stem cell which can differentiate into cells of at least two of the three somatic lineages (ectoderm, mesoderm, endoderm);
- a "multipotent" cell is restricted to one lineage.
- "Progenitor" and "precursor" cells are further restricted within the lineage. If not explicitly foreseen, totipotent cells are classified with pluripotent cells. Multipotent cells should not be classified with pluripotent cells.

This has been adopted to clarify classification practice with respect to the use of the words "pluri-" and "multipotent." Under this definition, totipotent cells need to be able to generate placenta and amnion, i.e. only the zygote, blastula and morula cells strictly qualify; applicants tend to use the term more liberally”¦ Conversely, the archetypal example of an adult pluripotent cell in the sense of C12N5/0607 (see International Application published under the PCT number: WO 01/11011), has been named "Multipotent Adult Stem (Progenitor) Cell" (MASC, MAPC) by its discoverers, which is too restrictive in view of our definitions.

Immediate precursors:

"Four dot" stem/precursor/progenitor groups usually cover (multipotent) stem cells as well as (restricted) precursors and committed progenitors, but there are two important exceptions with respect to the latter: myoblasts go with myotubes in C12N/5/0658 (since myotubes do not proliferate, culture can only be directed to their precursors). In the blood/immune hierarchy C12N5/0634, immediate, committed, precursors are classified with their progeny; C12N5/0647 is reserved for stem cells and multi-lineage progenitors.

Sub-headgroups C12N5/0603, C12N5/0608, C12N5/0613, C12N5/0618, etc vs. specific subgroups C12N5/0604, C12N5/0605, C12N5/0606, C12N5/0608:

The "three dot" (sub)headgroups are used for two different purposes:

- for cells whose precise type is not (yet) foreseen in the scheme,

- as a broad indication of end product where the examples do not provide enough evidence as to the result of a differentiation process.

E.g. a document pertaining to neural differentiation of MSC is C12N5/0618, C12N2506/21 while a document pertaining to neuronal differentiation of MSC, with detailed, extensive, evidence as to the neuronal phenotype is C12N5/0619, C12N2506/21. In the intermediate situation where a document claims neuronal differentiation with only limited evidence (e.g. one or two markers), it is preferred to use the headgroup C12N5/0618, especially if the document additionally provides examples of oligodendrocyte/glial differentiation at the same poor level of evidence.

- C12N5/0602:

The head group should be used only for specific vertebrate cells which do not fit elsewhere in the scheme. Generic disclosure for vertebrate cells is C12N5/00 (and subgroups).

- C12N5/0603:

This is actually "embryonic or fetal cells and tissues", but interpreted in a very restricted sense to encompass only cells that are solely embryonic and/or fetal; embryonic/fetal cells of recognisable type which are also present in an adult are classified as adult cells. “Rejuvenated" cells claimed to have been brought back to pluripotency or cells described by an applicant as "ES-like" do not qualify for C12N5/0606: These cells do not actually originate from an embryo or fetus, see C12N5/0607(A). In practice, C12N5/0603 itself only contains embryoid bodies and cells being in an intermediate stage of differentiation between pluripotent cells (ES) and “adult”• (typable) tissue; e.g. “definitive endoderm”• cells C12N5/0603 (exists only in embryo), pancreatic cells C12N5/0676 (adult). Embryonic germ (EG) cells, which can be regarded as an equivalent for ES, are C12N5/0611, but embryonic carcinoma (EC) cells are classified in C12N5/0606 as far as they are used as a model for ES (now that human ES have been isolated, EC technology appears to be obsolete).

- C12N5/0607:

Pluripotent adult stem cells are still a controversial and largely speculative topic. Extreme care must be exercised when allocating this class: to qualify, a cell must have demonstrated pluripotency (note that the corresponding examples of differentiation into at least two distinct lineages are probably not to be indexed) and must not belong to any other subgroup of the scheme.

- C12N5/0696:

This covers all kinds of (demonstrated) “rejuvenated”• cells or induced pluripotent stem cells (iPS). The rejuvenation method/agents are to classified appropriately (C12N2510/00 and C12N2501/60 for typical iPS obtained by forced expression of Oct-3/4, Sox-2, Klf4, Nanog, cMyc”¦; C12N2501/00, C12N2500/00, C12N2502/00 as appropriate for chemical agents). Detailed aspects regarding the construction of a suitable expression vector are to be classified in C12N15/00.

- C12N5/0608:

The head group is to remain empty until a third mammalian sex is discovered or engineered. The few documents dealing both with oocytes and spermatozoa are classified in both subgroups C12N5/0609 and C12N5/061.

- C12N5/0658:

For practical reasons, precursors (myoblasts) have been grouped with their progeny (myotubes); as a result, only few documents remain in C12N5/0659 (satellite cells).

- C12N5/0634:

Owing to the complexity of the lineage, committed precursors are grouped with their immediate progeny: e.g. pre-T cells go with T cells in C12N5/0636; lymphoid stem cells, which can give rise either to B or T, remain in C12N5/0647.

Vaccines: Immunogenic preparations containing T cells or antigen-presenting cells (dendritic cells, macrophages) exposed to antigens, to be used as elaborate forms of vaccines, are classified in A61K39/00 in the first place (most probably A61K39/0011), with the appropriate A61K39/00 Indexing Code.

- C12N5/0629:

C12N5/0629 contains purified keratinocytes and whole skin biopsies, assigned to what is regarded as the most relevant cell type, but artificially reconstructed skin is C12N5/0698.

- C12N5/0671, C12N5/0677:

Encapsulation is assimilated to 3D culture. C12N2533/00 codes may apply to the capsule material.

- C12N5/0691:

For practical reasons, this group contains isolated vascular smooth muscle cells (not C12N/0661) as well as elaborated three-dimensional constructs comprising multiple types (e.g. vascular endothelium C12N5/069, fibroblasts C12N5/0656); in the latter case, the further cell types may be indexed with C12N2502/00 codes as in C12N5/0697.

- C12N5/0692:

Haemangioblasts, which are precursors for both the haematopoietic and the vascular endothelial lineages, always get a double class: C12N5/0647, C12N5/0692.

- C12N5/0693:

Tumour cells considered for themselves (i.e. as tumours) are classified here, but tumour cells used as convenient immortalised equivalents / models of their untransformed counterparts are classified as normal cells: e.g. embryonic carcinoma C12N5/0606; medium specially adapted for hepatomas C12N5/067, C12N2500/00, C12N2501/00, C12N2502/00, C12N2503/00, C12N2506/00, C12N2509/00.

- C12N5/0694:

Myeloma cell lines for use in the making of hybridomas are directly classified in C12N5/163, with their application, rather than as C12N5/0694.

- C12N5/0697:

"Tissue equivalent" is to be construed broadly as any in vitro construct associating different cell types to achieve one function; the precise structure or function of an actual tissue need not be achieved but it must be an artificial construct, not an actual tissue explant (C12N5/0602 and subgroups, according to the source or dominant cell type), and no single cell type must be responsible for the desired effect, as is the case for a typical co-culture. Examples: model of neuromuscular junction where a neuron commands a muscle cell C12N5/0697, C12N2502/081, C12N2502/1335; testicular prosthesis consisting of chondrocytes (for shape) and of Sertoli cells (for hormonal function), C12N5/0697, C12N2502/1317, C12N2502/24; but embryonic stem cells on a feeder layer of embryonic fibroblast C12N5/0606, C12N2502/16. C12N2502/00 codes are used to index all cell types, including accessory ones (e.g. vascular cells or tumour cells added in some illustrated embodiments to study vascular or tumour growth inside a tissue).

- C12N5/10:

Not to be used. Genetic engineering itself is classified in C12N15/00; cells modified for a particular application (e.g. recombinant expression, promoter-reporter constructs for testing) are classified with the application (C07K14/00-C07K14/16, G01N33/00, C12Q1/00). Classification in C12N5/00 is done only if there is actual interest in the cell itself; e.g. transfecting pdx1 in BM-MSC to yield insulin-secreting cells (assimilated to pancreatic delta cells, according to the sought therapeutic effect, even though full differentiation and full functionality may not be achieved) C12N5/0676, C12N2506/1353, C12N2510/00.

- C12N5/12:

Has only been used for extremely rare cases of generic fused cell technology applicable equally to animal, vegetal, fungal (yeast) or bacterial cells.

- C12N5/16:

Fusion partners are not indexed. C12N5/163 covers also cell lines to be used as fusion partners, but not specific hybridomas producing a specific antibody

Some “rejuvenated”• cells prepared by introducing “young”• cytoplasm into “old”• cells, or even by transferring “old”• nuclei into enucleated “young”• cells”• have been assimilated to fused cells and classified here. See also code C12N2506/00. Note that nuclear transfer in itself is C12N15/873 and circulation is warranted. Proper cloning is not classified here.

C12N5/0606

Insert:

Special rules of classification within this group

A "pluripotent" cell is a somatic stem cell which can differentiate into cells of at least two of the three somatic lineages (ectoderm, mesoderm and endoderm). Totipotent cells are classified with pluripotent cells. A "totipotent" cell can differentiate into all somatic lineages (ectoderm, mesoderm and endoderm), the germ line and extra-embryonic tissues such as the placenta

C12N5/0607

Insert:

Special rules of classification within this group

A "pluripotent" cell is a somatic stem cell which can differentiate into cells of at least two of the three somatic lineages (ectoderm, mesoderm and endoderm). Totipotent cells are classified with pluripotent cells. A "totipotent" cell can differentiate into all somatic lineages (ectoderm, mesoderm and endoderm), the germ line and extra-embryonic tissues such as the placenta

C12N5/0647

Insert:

Special rules of classification within this group

A "multipotent" cell is restricted to one lineage.

C12N9/98

Insert:

Special rules of classification within this group

Enzymes present in granular or free-flowing enzyme compositions are also classified in the most specific subgroup from C12N9/00 - C12N9/94 and in C12Y.

C12N11/00

Insert: Under "Informative references" section, as the second table row

Biological treatment of water, waste water or sewage	C02F3/00

C12N15/00

Insert: Under "Informative references" section, as the last table row

Mutants of genetically engineered plant or animal cells	C12N5/00

Delete: The current Special rules section

Insert:

Special rules of classification within this group

Classification in C12N15/00 should only be performed in exceptional cases in the absence of a more specific subgroup.

C12N9/00 (and C07K14/00) vs. C12N15/00: C12N9/00 (and C07K14/00) stop where C12N15/00 begins. C12N9/00 (and C07K14/00) are only used for the product (the inventive non-coding sequence of a gene) while C12N15/00 is used for the use of this product (e.g. a promoter present in a vector for the production of other proteins). Non-coding sequences are only classified in C12N9/00 (or C07K14/00) if they are (part of) the invention. If the non-coding sequence is just an arbitrary choice from more available sequences it is not classified in C12N9/00 (or C07K14/00)

C12N15/52

Insert: As second paragraph under Definition statement

Groups of genes for enzymes providing an organism with the ability to synthesize a specific compound or compounds (e.g. synthetic (partial) pathways)

Insert:

Special rules of classification within this group

The genes present in the operon are also classified in C12N9/00 and subgroups and in C12Y.

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
C12N5/00	References relevant	Genetic engineering, vectors	Mutation or genetic engineering; use of hosts therefore
C12N5/00	Special rules	"Stem vs. Differentiated Cells: Classification is based on the end product as available to the skilled person. Documents pertaining to the purification of stem cells are classified **C12N5/06BNP**;"	"Stem vs. Differentiated Cells: Classification is based on the end product as available to the skilled person. Documents pertaining to the purification of stem cells are classified **as the stem cells**;"
C12N5/00	Special rules	"immunolgy"	"immunology"
C12N5/00	Special rules	"(Methods for) Cell purification: C12N5/06 and subgroups for a specific cell type, or the specific cases covered by sub-groups of C12N5/00P. C12N5/00P for a generic process."	Delete paragraph

C12N5/00	Special rules	The differentiation of a lineage-restricted stem cell into the corresponding, expected, progeny (from a C12N5/0606, C12N5/0611, C12N5/0623 etc progenitor or stem cell to a C12N5/0603, C12N5/0608, C12N5/0613 etc terminal cell within the same branch of the hierarchy) is not further classified; differentiation of pluripotent cells (C12N5/02P, C12N5/0607, C12N5/0611) and "unexpected" differentiation processes, such as transdifferentiation (from C12N5/06NP to C12N5/06m) or dedifferentiation (from a C12N5/06n cell into a more primitive or more potent C12N5/06NP cell), (where n and m are different numbers) are classified with an C12N2506/00 symbol for the initial cell.	The differentiation of a lineage-restricted stem cell into the corresponding, expected, progeny (from a C12N5/0606, C12N5/0611, C12N5/0623 etc progenitor or stem cell to a C12N5/0603, C12N5/0608, C12N5/0613 etc terminal cell within the same branch of the hierarchy) is not further classified; differentiation of pluripotent cells (C12N5/0606, C12N5/0607, C12N5/0611) and "unexpected"• differentiation processes, such as transdifferentiation to a different branch of the hierarchy or dedifferentiation (from a differentiated cell into a more primitive or more potent cell), are classified with a C12N2506/00 symbol for the initial cell.
C12N5/00	Special rules	C12N5/06R	C12N5/0062
C12N5/00	Special rules	Skin equivalents classified in C12N5/0698 must comprise keratino cytes and fibroblasts (skin equivalents made	Delete paragraph

		only with keratinocytes are still in C12N5/06B12A), therefore symbols M12N502/12 and C12N2502/16 need not be given for those two types, but M12N502/12 should be given if further epithelial cell types, e.g. hair follicles or melano cytes, are present.	
C12N7/00	Special rules		Insert as second paragraph: Allocation of these codes is compulsory for all relevant virus subject-matter, according to the rules defined below.
C12N7/00	Special rules	C12N7/00 needs to be always given when no other viral group (A61K39/12, C07K14/005, C12N15/86) is appropriate, since giving at least one of said groups is mandatory.	C12N7/00 should be given when no other viral (A61K39/12, C07K14/005, C12N15/86) or other group is appropriate, since giving at least one group as invention information is mandatory.
C12N7/00	Special rules	If the protein or its gene is an essential feature of the invention, also C07K14/005 is to be given.	If the protein or its gene is an essential feature of the invention, also C07K14/005 is to be given**, together with the code ending with 22**.
C12N7/00	Special rules	If the use as a vaccine is an essential feature of the invention(s), also A61K39/12 is to be given.	If the use as a vaccine is an essential feature of the invention(s), also A61K39/12 is to be given**, together with the code ending with 34**.
C12N7/00	Special rules	If the vector is an essential feature of the invention, also C12N15/86 is to be given with codes 43-45	If the vector is an essential feature of the invention, also C12N15/86 is to be given **together** with codes **ending with** 43-45.
C12N7/00	Special rules	If production, purification or stabilisation are an essential feature of	If production, purification or stabilisation are an essential feature of the invention, **also** C12N7/00 is to be given, **together with the code ending with 51.**

		the invention, C12N7/00 is to be given.	
C12N7/00	Special rules	If the cells or packaging systems are an essential feature of the invention, C12N7/00 is to be given.	If the cells or packaging systems are an essential feature of the invention, **also** C12N7/00 is to be given, **together with the code ending with 52.**
C12N7/00	Special rules	If inactivation or attenuation is an essential feature of the invention, C12N7/00 is to be given with codes 61-64.	If inactivation or attenuation is an essential feature of the invention, **also** C12N7/00 is to be given **together** with codes **ending with 61-64.**
C12N9/00	Relationship	repellant	repellent
C12N9/00	Relationship	Crystalls	Crystals
C12N9/00	Relationship	Enzymes for which no class in C12N9/00 concerning just one enzyme exists are further classified in M12N600/00 - M12N699/00.	Enzymes are also classified in C12Y according to their EC number (see special rules section: "Rules for C12Y in addition to C12N9/00)
C12N9/00	Special rules of classification within this group	C12N15/133B	C12N15/1137
C12N9/00	Special rules of classification within this group	• Documents are only classified in main group C12N9/00 and lower if there is more disclosed of an enzyme than just a name, a supplier, a reference to a further document for its production and the like. Properties like a sequence or mutation, or a method for its production must be disclosed.	• Documents are only classified in main group C12N9/00 and lower if there is more disclosed of an enzyme than just a name, a supplier, a reference to a further document for its production and the like. Properties like a sequence or mutation, or a method for its production **etc.** must be disclosed.
C12N9/00	Special rules of	“and	Delete both instances

	classification within this group	subgroupsest"	
C12N9/00	Special rules of classification within this group		Insert after bullet: "documents to/being valid for only one specific enzyme" • C12N9/00 (and C07K14/00) vs. C12N15/00: C12N9/00 (and C07K14/00) stop where C12N15/00 begins. C12N9/00 (and C07K14/00) are only used for the product (the inventive non-coding sequence of a gene) while C12N15/00 is used for the use of this product (e.g. a promoter present in a vector for the production of other proteins). Non-coding sequences are only classified in C12N9/00 (or C07K14/00) if they are (part of) the invention. If the non-coding sequence is just an arbitrary choice from more available sequences it is not classified in C12N9/00 (or C07K14/00)
C12N9/00	Special rules of classification within this group	Enzymes prepared by recombinant DNA technology are not classified according to the host, but according to the original enzyme expressed, e.g. HIV protease expressed in E. coli is classified with viral proteases	Enzymes prepared by recombinant DNA technology are not classified according to the host used, but according to the original organism from which the encoding nucleotides were obtained, e.g. HIV protease expressed in E. coli is classified with viral proteases
C12N9/00	Special rules of classification within this group		Insert as last bullet: Rules for C12Y in addition to C12N9/00: Enzymes are classified additionally in C12Y according to their full EC number (EC a.b.c.d.). An additional C12Y symbol is also allocated even when a subgroup specific for a single enzyme (EC number) already exists in C12N9/00. Thus, thrombin (EC 3.4.21.5), for which a single subgroup, C12N9/6429, exists, will additionally be allocated the appropriate C12Y symbol. (This double classification is of potential use for other areas of technology (e.g. food chemistry, detergents) where C12Y classification is used because a more specific classification scheme for enzymes in these areas is not present). A less specific C12Y symbol (e.g. EC a.b.c.) is only used in addition to a C12N9/00 symbol if the subject-matter to be classified concerns a group of enzymes with a common activity AND there is no equivalent group present in C12N9/00 for enzymes with the common activity. For example, a document describes the purification of carboxy-lyases (EC 4.1.1.). C12N9/88 (lyases, EC 4.) is the closest symbol in C12N9/00, thus the document is classified in C12N9/88 and C12Y401/01. However a document describing the purification of hexosyl transferases is classified ONLY in C12N9/1051.
C12N9/96	Special rules	Enzymes being stabilised are also classified in their	Stabilized enzymes are also classified in the most specific

		most specific enzyme group.	subgroup from C12N9/00 - C12N9/94 and in C12Y.
C12N15/00	Definition statement	Non-coding nucleic acid sequences, e.g. Promoters, operators, enhancers, suppressors, silencers, locus control regions, antisense nucleic acids, and aptamers, used in regulating gene expression or in other recombinant DNA technology related methods	Non-coding nucleic acid sequences, e.g. Promoters, operators, enhancers, suppressors, silencers, locus control regions, antisense nucleic acids, and aptamers, used in regulating gene expression or in other recombinant DNA technology related methods. **(Non-coding parts of genes are also classified in the subgroup corresponding to the product of the gene in C07K14/00 or C12N9/00, only if they are part of the invention).**
C12N15/00	References relevant	C07K C12N9/00	C07K14/00; C12N9/00
C12N15/11	Definition statement		Add paragraph: Subgroups C12N15/11 - C12N15/117 also cover the use of non-coding nucleic acids as active ingredients medicinal preparations
C12N15/11	Special rules	No distinction is made between 'invention' and 'additional' information. All technical features belonging to the 'invention' and all those exemplified in the document are classified.	No distinction is made between 'invention' and 'additional' information. All technical features belonging to the 'invention' and all those exemplified in the document are classified. **The allocation of additional information symbols, where possible, is mandatory.**
C12N15/52	Definition statement		Add paragraph: Groups of genes for enzymes providing an organism with the ability to synthesize a specific compound or compounds (e.g. synthetic (partial) pathways)
C12N15/85	Definition statement	(C12N15/8509 **and subgroups**), and viral vectors (C12N15/86).	(C12N15/8509), and viral vectors (C12N15/86).
C12N15/85	Definition statement	C12N15/90	C12N15/907
C12N15/85	Special rules	C12N2999/00	C12N2840/00
C12N15/85	Special rules	C12N15/8509 **and subgroups are** to be combined with	C12N15/8509 is to be combined with

C12N15/85	Special rules	The subdivision of viral vectors corresponding to IPC C12N15/86 and subclasses is no longer used. The main class C12N15/86 is to be given when the viral vector is an essential aspect of the invention, and C12N27xx/xxx4+ codes are to be given to combine viral taxonomy with the various vector uses.	The subdivision of viral vectors corresponding to IPC C12N15/86 and subclasses is no longer used. It is mandatory to give symbols from the C12N2710/00-C12N2795/00 series combining the viral taxonomy with the appropriate ending 43, 44 or 45 to indicate subject-matter relating to viral vectors. When the viral vector is an essential part of the invention, C12N15/86 needs to be co-allocated.
C12N15/85	Special rules		Insert as last bullet: • Introduction of genetic material specifically into plant cells should also be classified in C12N15/82 and subgroups.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

C12P19/00

Delete: Current Definition statement

Insert:

Definition statement

This group covers:

Sugars (saccharides) prepared by enzymatic and/or fermentative methods.

For the definition of the term "saccharide radical" the same criteria as in C07H apply, i.e.:

A "saccharide radical" is derived from acyclic polyhydroxy-aldehydes or acyclic polyhydroxy-ketones, or from their cyclic tautomers,

- by removing hydrogen atoms or
- by replacing hetero bonds to oxygen by the same number of hetero bonds to halogen, nitrogen, sulfur, selenium, or tellurium.

in accordance with either of the following definitions it:

a) consists of an uninterrupted carbon skeleton and oxygen atoms directly attached thereto, and;

b) is considered to be terminated by every bond to a carbon atom of a cyclic structure and by every bond to a carbon atom having three bonds to hetero atoms, e.g. ester or nitrile radicals, and;

c) contains within the carbon skeleton an unbranched sequence of at the most six carbon atoms in which at least three carbon atoms have one single bond to an oxygen atom as the only hetero bond (at least two in the case of a skeleton having only four carbon atoms, but at least three for compounds in which one or more carbon to oxygen bonds involved in a) or b) has been replaced by a carbon bond to a hetero atom other than oxygen), and

i) in a cyclic or acyclic sequence, at least one other carbon atom (that is not doubly bound to a carbon atom, e.g. glycals) has two single bonds to oxygen atoms as the only hetero bonds, or

ii) in an acyclic sequence, at least one other carbon atom (that is not doubly bound to a carbon atom) has one double bond to an oxygen atom as the only hetero bond;

d) has in the gamma or delta position in respect to the carbon atom bearing those two single bonds or this double bond to oxygen a carbon atom bearing one single bond to oxygen

e) is also a radical derived from a radical as defined in a) above by replacing at the most four of the specified hetero bonds to oxygen by the same number of hetero bonds to halogen, nitrogen, sulfur, selenium, or tellurium.

The terms "heterocyclic radical" or "hetero ring" are considered to exclude saccharide radicals as defined above.

Note: sorbitol and xylitol are NOT saccharide radicals, but they are polyhydric alcohols (classified in C12P7/18)

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
C12P	References relevant to classification in this subclass		Insert after: "Peptides, proteins and antibodies" row Recovery of waste polymers by chemically breaking down the polymer chain by treatment with enzymes — C08J11/105 Insert after: "Fermentation processes for beer production" row Detergent compositions containing enzymes — C11D3/386
C12P	References relevant Replace reference for: "Pasteurisation, sterilisation, preservation, purification, clarification, ageing of alcoholic beverages involving enzymes"	C12H1/15	C12H1/00
C12P	Special rules of classification	Replace paragraph before table "The following Indexing Codes are given as additional information:"	Replace paragraph before table The following Indexing Codes should, where applicable, be given as additional information (compulsory):
C12P1/00	Definition statement	E.g., a document relating to an antibiotic produced by a certain bacterium, where the antibiotic is only defined by its activity and/or its preparation method. Such a document would have to be classified in C12P1/04. "not	E.g., a document relating to an antibiotic produced by a certain bacterium, where the antibiotic is only defined by its activity and/or its preparation method. Such a document would have to be classified in C12P1/04. "not sufficiently characterized" may e.g. mean that, although it is specified in

		sufficiently characterized" may e.g. mean that, although it is specified in the description that the antibiotic compound bears an alcohol group, it is not clear if it also bears other functional groups (e.g. amine) or a heterocycle, i.e. it could fall under C12P7/02, C12P13/00 or C12P17/00.	the description that the antibiotic compound bears an alcohol group, it is not clear if it also bears other functional groups (e.g. amine) or a heterocycle, i.e. it could fall under C12P7/02, C12P13/00 or C12P17/00. Note that in this case the document should also be classified in C07G11/00.
C12P1/00	References relevant		Insert after: "Preparation of fertilisers characterized by a composting step" row Antibiotics of unknown structure — C07G11/00
C12P1/00	Special rules of classification within this group	Documents which have been classified in this group should also be classified in C12R, even if such compounds are produced by known strains.	Documents which have been classified in this group should also be classified in C12R, even if such compounds are produced by known strains. Note that this rule applies only to C12P1/00 - C12P1/06, and NOT to groups C12P3/00 - C12P41/00.
C12P19/00	Relationship between large subject matter areas	DNA/RNA amplification (e.g. PCR): measuring or testing processes involving nucleic acid amplification reactions are classified in C12Q1/68. However, processes directed to the enzymatic amplification reaction itself are classified in C12P19/34. In other words, nucleic acid amplification reactions are classified in C12P19/34 if the invention lies in the enzymatic reaction itself (and not in other aspects of the method, such as preparing the DNA/oligo's, annealing conditions, screening/detection methods etc).	Methods for DNA/RNA amplification (e.g. PCR) are always classified in C12Q1/68 and subgroups regardless of whether they are involved in measuring or testing processes. However, processes wherein a technical contribution to the prior art lies in the enzymatic amplification reaction itself are additionally classified in C12P19/34. In other words, nucleic acid amplification reactions are additionally classified in C12P19/34 if the invention lies in the enzymatic reaction itself (and not only in other aspects of the method, such as preparing the DNA/oligo's, annealing conditions, screening/detection methods etc).
C12P2201/00	Special rules	Classification in this group is optional, where it is esteemed that the pretreatment method is an important feature which may have significant impact on the enzymatic step following the pretreatment.	Classification in this group is compulsory when it is esteemed that the pretreatment method is an important feature which may have significant impact on the enzymatic step following the pretreatment.
C12P2203/00	Special rules	This Indexing Code provides an additional information for documents classified in C12P according to the product produced. E.g. a method for producing propionic acid by fermentation of a	This Indexing Code provides an additional information for documents classified in C12P according to the product produced. E.g. a method for producing propionic acid by fermentation of a lignocellulosic hydrolysate is classified in C12P7/52 and in

		lignocellulosic hydrolysate is classified in C12P7/52 and in C12P2203/00.	C12P2203/00. It is compulsory to give this classification symbol where appropriate.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

C12Q1/00

Delete: Special rules section

Insert:

Special rules of classification within this group

In this group classification is made according to the most relevant feature rather than according to the last-place-rule.

In this group, test media are classified in the appropriate group for the relevant test process.

In this group, viruses, protozoa, unicellular and multicellular fungi, yeasts and unicellular and multicellular algae are considered as micro-organisms. Sub-cellular parts, unless specifically provided for, are classified with the whole cell.

Classification in main group C12Q1/00 and sub-groups C12Q1/001 - C12Q1/66 is further refined using Indexing Codes from the range C12Q2304/00 - C12Q2337/52. The definitions and scope of these Indexing Codes are self evident. The codes and definitions are listed at the end of this document.

Due to the strong relationship between the range C12Q1/00 - C12Q1/66 and the range G01N33/50 - G01N33/98, "Chemical analysis of biological material", and the rather broad nature of the definitions some of the C12Q1/001 - C12Q1/66 sub-groups, refinement of the classification in this area by allocation of Indexing Codes from the range G01N2333/00 - G01N2800/60, where possible, is considered mandatory.

Observation of the progress or of the result of processes specified in this group by any of the methods specified in groups G01N3/00 - G01N29/00 may require additional classification in these groups.

C12Q1/025

Insert:

References relevant to classification in this group

This group does not cover:

Testing or evaluating the effect of chemical or biological compounds, e.g. drugs, cosmetics using animal cells	G01N33/5008

C12Q1/24

Insert:

Definition statement

This group covers:

Methods for sampling/physically isolating intact microorganisms (including non-viable microorganisms) are classified in C12Q1/24 irrespective of what becomes of them afterwards. If the isolated microorganisms are further subject to immunoassay/biospecific binding assay a further symbol from G01N33/569 or subgroups would be added.

C12Q1/68

Delete: Current Relationship section

Insert:

Relationship between large subject matter areas

The group C12Q1/00 relates to enzymes. From C12Q1/68 onwards, assays and products for analysing or detecting nucleic acids are covered irrespective of whether enzymes or microorganisms are involved. C12Q1/70 similarly relates to nucleic acid assays and products for analysing or detecting viruses or bacteriophages.

Nucleic acid amplification reactions are classified in C12P19/34 if the focus of the subject-matter is on the enzymes or the enzyme modifications per se. However if the enzyme modification results in a changed/improved analytical effect classification is also effected in C12Q1/68.

C12Q1/6804

Delete: Current Special rules section

Insert:

Special rules of classification within this group

See Annex 1

Documents in which an immunological reaction is used to measure the presence or progress of a hybridization reaction are classified in this subgroup. For example the use of an antibody specific to double stranded DNA or the use of a hapten label on the hybridization strand which is subsequently detected immunologically.

Also classified in this subgroup are immunoassays in which the immunological reaction is detected by hybridizing a nucleic acid label. (NOTE: As this is a special case and it is often difficult to distinguish where the contribution over the state of the art lies, documents relating to immunoassays using nucleic acid labels are ADDITIONALLY classified in the appropriate subgroup of G01N33/50 and allocated the G01N2458/10 symbol.

C12Q1/70

Delete: Current Definition statement

Insert:

Definition statement

This group covers:

all methods which are specifically designed for the analysis of viral nucleic acids or for the analysis of nucleic acids of bacteriophages. (NOTE: According to the hierarchy this subgroup should not be limited to analysis involving nucleic acids. In practice, however, as Immunoassays/protein based Biospecific binding assays for viruses are classified in G01N, this subgroup is effectively limited to analysis of viral/bacteriophagal nucleic acids). Methods which are generally applicable to nucleic acid analysis should also be classified in the relevant C12Q1/68 subgroup.

2. B. DEFINITIONS QUICK FIX

Symbol	Location of change (e.g., section title)	Existing	New
C12Q1/00	Relationship	In groups C12M- C12Q or C12S, and within each of these groups, in the absence of an indication to the contrary, classification is made in the last appropriate place.	(delete)

C12Q1/00	References relevant	Observation of the progress or of the result of processes specified in this group by any of the methods specified in groups G01N3/00- G01N29/00G01N	Replace row with: Testing involving animal cells G01N33/5005 Testing involving plant cells G01N33/5097
C12Q1/00	References relevant		Add after "Immunoassay for micro-organisms" row Immunoassay for animal cells G01N33/56966 Immunoassay for plant cells G01N33/56961
C12Q1/00	Informative references		Add row: Observation of the progress or of the result of processes specified in this group by any of the methods specified in groups G01N3/00 - G01N29/00 G01N
C12Q1/02	Definition statement		Add paragraph: C12Q1/02 and subgroups includes testing for microorganisms where the desired result indicates non-viability.
C12Q1/68	References relevant	Symbol corresponding to "Coultier counters": G01N1/00 - G01N1/286 G01N1/31 - G01N/ 44 G01N3/00 - G01N13/04 G01N15/00 - G01N15/1484 G01N19/00 - G01N19/10 G01N35/00 - G01N35/1097	G01N1/00 - G01N1/30 G01N13/00 - G01N13/04G01N15/00 - G01N15/1484G01N19/00 - G01N19/10G01N35/00 - G01N35/1097
C12Q1/68	References relevant	Symbol corresponding to "Sensors and electronic devices involving nucleic acids wherein the electrical detection is important": G01N31/00	(delete)
C12Q1/68	References relevant	Symbol corresponding to "Computer systems using nucleic acids": G11C13/02R3B	G11C13/0019
C12Q1/68	Informative references	Symbols corresponding to "DNA/RNA encoding protein; preparation by recombinant DNA technology" C07K14/005- C12N15/51	C12N15/111 - C12N15/907
C12Q1/68	Informative references	Symbols corresponding to: "Animal vectors and their preparation"	Add comma separating symbols
	Special rules	In method classes table: Title corresponding to: C12Q1/6869	Methods for sequencing; sequencing using nanopores and other sequencing systems based on physical properties of nucleic acids e.g. Atomic Force Microscopy (AFM)

		"Methods for sequencing"	
C12Q1/6804	References relevant	G01N33/50	G01N33/53
C12Q1/6804	References relevant		Add row: Immunoassay for nucleic acids G01N33/5308
C12Q1/6804	Informative references	G01N33/50	G01N33/53
C12Q1/70	References relevant		Add row: Immunoassay/protein based Biospecific binding assay for viruses G01N33/56983
C12Q1/70	Special rules	Annex 1 and 2.	See annex 1 and 2 under the "special rules" section of C12Q1/68.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. B. DEFINITIONS QUICK FIX

C12R

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
C12R	Special Rules	The last place rule is applicable, but all information should be given a symbol: for example, if new natural isolates of Clostridium, Streptococcus, Hansenula and Petromyces are part of the invention in the application, then classification in C12R1/145, C12R1/46, C12R1/78 and C12R1/645 should be given.	All information should be given a symbol: for example, if new natural isolates of Clostridium, Streptococcus, Hansenula and Petromyces are part of the invention in the application, then classification in C12R1/145, C12R1/46, C12R1/78 and C12R1/645 should be given.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

G01N33/50

Delete: Current Definition

Insert:

Definition statement

This group covers:

Chemical analysis of biological material, e.g. blood (in vitro), urine.

Testing involving biospecific ligand binding methods.

Use of compounds or compositions for colorimetric, spectrophotometric or fluorometric investigation, e.g. use of reagent paper.

Immunological testing, including immunoassay or materials therefor.

Testing involving human, animal or plant cells.

Testing or evaluating the effect of chemical or biological compounds (potential drug discovery) using human, animal or plant cells.

References relevant to classification in this group

This group does not cover:

Measuring or testing processes, other than immunoassay or biospecific binding assay (which is covered by G01N33/53), involving enzymes or micro-organisms	C12Q

Special rules of classification within this group

In subgroups G01N33/50 - G01N33/98 classification is made according to the most relevant feature rather than according to the last place rule.

Thus an immunoassay for a hormone, in which there is sufficient disclosure of the immunoassay technique used, would be classified in G01N33/53, or the most relevant subgroup thereof, as well as in G01N33/74.

In subgroups G01N33/50 - G01N33/98 the allocation of additional symbols from the range G01N2333/00 - G01N2800/7095, where possible, is considered mandatory.

Some extra guidance on the use of these additional symbols:-

Additional information symbols are used in this field to refine the classification, especially

in subgroups where a detailed subdivision is not available. A typical example is the subgroup G01N33/6893 which encompasses protein biomarkers for diseases not provided for elsewhere, thus clearly a rather broadly defined subgroup. In order to further refine the classification of documents in this subgroup, typically additional symbols from the G01N2800 series are allocated. Of course symbols from this series are also used in other subgroups where diseases are concerned.

Similarly additional information symbols from the entire range above are applied to any subgroup to further refine the classification. Normally this would apply more to subgroups with a broader definition. If a specific subgroup already exists in the main trunk the use of additional symbols is not necessary. For example, a document describes a method for detecting a hormone. Classification will be in G01N33/74 only as allocation of an additional symbol for hormones (G01N2333/575) does not add value (merely duplication).

However, if the document were to disclose the hormone to be insulin, classification would be in G01N33/74 and additionally G01N2333/62 for insulins. The additional symbol has added value in this case (see also "Special Rules" section under subclass G01N33/566.

Further symbols from the immunoassay line would also be possible if sufficient detail was present.

Special case - many possible alternatives (laundry lists).

Documents often disclose lists of alternatives, especially in the area of biomarkers for diseases. Regularly these lists run into the tens and occasionally into the hundreds of different alternatives. As the value of such disclosures is debatable, it doesn't make sense trying to allocate additional symbols to each and every alternative.

How are the G01N2000 series symbols to be allocated in such cases?

Often claimed lists can be grouped into families of proteins/diseases etc. If a list can be grouped into five or less families, classify on the basis of the families.

If this is not possible then the description/examples should be consulted. If there are worked examples of five or less members of the list, classify on the basis of the worked examples.

If after all it is not possible to limit the list to five or less symbols, then the added value is lost and classification is made in the most appropriate place in the main trunk only.

G01N33/5082

Insert:

References relevant to classification in this group

This group does not cover:

Screening or testing for compounds for diagnosis of disorders/ assessment of conditions in vivo	A61K49/0004

Special rules of classification within this group

With respect to whole organisms, it is essential for classification in this subgroup that measurement is performed on a sample taken from the organism. Thus the chemical or biological compound under investigation may be administered to the organism, but the effect on the organism is measured by testing a sample removed from the organism.

If the effect is determined by direct measurement on the organism itself, i.e. in-vivo, e.g. muscle contraction, behavioural changes etc. classification is made in the appropriate subgroups in A61K (see above).

G01N33/5097

Insert:

Special rules of classification within this group

In this subgroup no distinction is made between unicellular and multicellular algae.

G01N33/53

Delete: The current definition

Insert:

Definition statement

This group covers:

In G01N33/53 and subgroups the term "immunoassay"/"immunochemical" is taken to include any biospecific binding assay. Thus receptor - ligand based assays are classified under this heading (see G01N33/566)

G01N33/53 and subgroups cover:-

-methods for performing immunoassays/specific binding assays

-preparation of "immunochemical" test materials e.g. conjugates, labelled conjugates for use in immunoassays, but not antibodies per se

-apparatus specially adapted for performing immunoassays. Emphasis on "specially adapted for immunoassay" General laboratory apparatus which may have a use in immunoassay is not classified here.

Immunoassays/specific binding assays for:

-analytes not provided for in subgroups of G01N33/53

or in any of the subgroups G01N33/62- G01N33/98

-pre-existing immune complex or autoimmune disease (G01N33/564)

-micoorganisms (including human, animal, plant cells, algae, yeasts or fungi) (G01N33/569)

-enzymes or isoenzymes (G01N33/573) (Note: immunoassay for..)

-cancer (G01N33/574)

-hepatitis (G01N33/576)

References relevant to classification in this group

This group does not cover:

General laboratory apparatus	B01L3/00
Immunoglobulins per se	C07K16/00
Assays involving nucleic acid hybridization	C12Q1/68

Special rules of classification within this group

Classification in the subgroup G01N33/53 itself is restricted to documents in which the inventive contribution lies in or is of such a broad nature that it cannot be easily be classified in a reasonable number of subgroups.

G01N33/5308

Insert:

References relevant to classification in this group

This group does not cover:

Nucleic acid analysis using immunogens	C12Q1/6804
Immunoassay/biospecific binding assay for plant cells, fungi or algae	G01N33/56961
Immunoassay/Biospecific binding assay for animal cells	G01N33/56966

Special rules of classification within this group

Direct immunoassay for nucleic acids are classified in the subgroup. Thus detection of nucleic acids using a specific nucleic acid binding antibody in a traditional immunoassay format e.g. ELISA.

Documents in which an immunological reaction is used to measure the presence or progress of a hybridization reaction are classified in C12Q1/6804. For example the use of an antibody specific to double stranded DNA or the use of a hapten label on the hybridization strand which is subsequently detected immunologically.

Immunoassays in which the immunological reaction is detected by hybridizing a nucleic acid label are also classified in C12Q1/6804 however in this technology it is often difficult to distinguish where the contribution over the state of the art lies, thus documents relating to immunoassays using nucleic acid labels are ADDITIONALLY classified in the appropriate subgroup of G01N33/50 and allocated the G01N2458/10 symbol.

G01N33/566

Insert:

Special rules of classification within this group

Where possible receptors/carrier proteins are classified with their targets in the appropriate subgroups of G01N33/50. Thus methods involving a receptor to a hormone are classified in G01N33/74 and not in this subgroup. Similarly methods involving a receptor to an Interleukin are classified in G01N33/6869 only.

Due to the broad definition of this subgroup additional information symbols from the G01N2333 range are used extensively with this subgroup to further characterize the receptor/carrier protein. If a specific symbol for the receptor already exists in the main trunk, the use of additional symbols is not necessary.

For example, a document describes a method for detecting an Interleukin using an Interleukin receptor. Classification will be in G01N33/6869 only as allocation of an additional symbol for Interleukin (G01N2333/7155) does not add value (merely duplication).

However, if the document were to disclose the Interleukin to be IL-3, classification would be in G01N33/6869 and additionally G01N2333/5403 for IL-3. The additional symbol has added value in this case.

Rules for use of the additional G01N2500 range symbols:

The following guidance is applicable to both this subgroup and other subgroups where receptors etc. may be classified.

Screening for compounds for potential therapeutic value often involve testing the effect of a particular compound on the activity of a receptor or on the interaction of a receptor with its target. Documents relating to this type disclosure are classified with the appropriate receptor symbol, possibly with an additional symbol from the G01N2333 range (see above), and an additional symbol from the G01N2500 range, this G01N2500 symbol being the identifier for the screening aspect. The G01N2500/10 symbol is used to identify documents in which a cell is involved but the cell itself merely functions as a carrier for the receptor and does not have any further involvement in the test. In other words the test would function equally well with an isolated receptor. Documents in which the cell has an integral function in the test e.g. change in cell morphology/motility, or a particular type of cell is required e.g. T-cell are classified in G01N33/5008 and subgroups.

G01N33/569

Insert:

Relationship between large subject matter areas

Methods for sampling/physically isolating intact microorganisms are classified in C12Q1/24 irrespective of what becomes of them afterwards. If the isolated microorganisms are further subject to immunoassay/biospecific binding assay a further symbol from G01N33/569 or subgroups would be added.

G01N33/56961

Insert:

Definition statement

This group covers:

Immunoassay/Biospecific binding assay for plant cells, fungi, yeasts and algae

Special rules of classification within this group

For the purposes of classification in this subgroup, no distinction is made between unicellular and multicellular algae.

Similarly yeasts are classified with fungi and no distinction is made between unicellular and multicellular fungi.

G01N33/58

Delete: Current Definition statement

Insert:

Definition statement

This group covers:

Detection of or use of labelled substances in methods of chemical analysis of biological material wherein the label is unspecified or is not identified by G01N33/581- G01N33/588 e.g. stable isotopes. Typically the use of labels in immunoassay/biospecific binding assay where the inventive contribution lies in the label.

References relevant to classification in this group

This group does not cover:

Production of labelled immunochemicals	G01N33/532

2. B. DEFINITIONS QUICK FIX

Symbol	Location of change (e.g., section title)	Existing	New
G01N1/00	References relevant	Sampling or physically isolating viable micro-organisms	Sampling or physically isolating micro-organisms
G01N33/5005	Definition statement	See G01N2500/00- G01N2500/20	(delete)
G01N33/5005	References relevant	Screening involving binding assays	Immunoassay/biospecific binding assay for human/animal cells
G01N33/5005	References relevant	Screening involving binding assay and plant cells	Immunoassay/biospecific binding assay for plant cells, fungi or algae
G01N33/5008	Definition statement		Add at end: Methods using cells for identification of potential therapeutic agents, toxicity testing, etc.
G01N33/5008	Special rules of classification within this group	Solid phase libraries are classified in terms of the product e.g. G01N33/68 and subgroups. See G01N2500/00-G01N2500/20.	Solid phase libraries are classified in terms of the product e.g. G01N33/68 and subgroups. As G01N33/5008 and subgroups are by definition used for screening of chemical or biological compounds, the additional symbols from the G01N2500/00 range are not required.
G01N33/5097	Informative references	Screening using a binding assay involving plant cells, fungi or yeasts	Immunoassay/biospecific binding assay for

			plant cells, fungi, yeasts or algae
G01N33/5308	Definition statement	Materials	(replace first word with) Immunoassay/Biospecific binding assay for materials
G01N33/5308	Informative references	S01N400/98	G01N2400/50
G01N33/531	References relevant	C12P	C12Q1/68
G01N33/536	Definition statement	The fact that the reaction takes place only in liquid phase.	The reaction takes place only in liquid phase. An exception is made for G01N33/542 where documents involving steric inhibition/signal modification assays in liquid and on solid phases are classified.
G01N33/542	Definition statement		Add at end of paragraph: Note: This subgroup is also used for classification of documents involving steric inhibition/signal modification assays on solid phases even though this subgroup falls under the heading of G01N33/536.
G01N33/566	Definition statement		Add paragraph at end: The term "specific" in this context is perhaps somewhat superfluous, meaning simply a receptor or carrier protein which has binding affinity to a particular target.

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

G02B

Delete: The References relevant, Special Rules, and Synonyms and Keywords sections in the subclass definition

Insert:

References relevant to classification in this subclass

This subclass does not cover:

Medical endoscopes	A61B1/00
Surgical microscopes	A61B19/52
Testing of optical systems	G01M11/00
Optical benches	G01M11/04
Optical rangefinders	G01C
Ophthalmic lenses	G02C
Electron and ion focusing devices	H01J
Xray optics	H01J
Optics integrated in LED packages	H01L33/58
Optics of laser cavities	H01S
Microwave and Terahertz optics	H01Q
Combination of optical elements with television receivers	H04N5/72
Heating arrangement for transparent or reflecting areas	H05B3/84
Xray apparatuses	H05G

Special rules of classification within this subclass

- The IPC groups **G02B11/00** - **G02B11/34** are not used for classification of incoming documents in ECLA, the subject-matter is covered by G02B9/00 and subgroups and G02B13/00 and subgroups.
- Other IPC classes which are not used for classification are:
- G02B7/185 - G02B7/198 (subject-matter covered by G02B7/182 and subgroups),
- G02B27/18 (subject-matter covered in H04N and G03B), and
- G02B27/24 (subject-matter covered by G02B27/22 and subgroups).

Indexing Codes in general:

Classification of additional information is mandatory. Assessment is done however on a case by case basis, e.g., a document describing the detailed structure of a wire grid polarizer should be classified in G02B5/3058, whereas a document describing a display system making explicit use of a wire grid polarizer without providing structural details of the polarizer itself should be given G02B5/3058 as an additional invention symbol.

Indexing Codes special cases (outside of the reformed ECLA structure, the following

additional sets of Indexing Codes are used):

- The set of Indexing Codes G02B2207/00 - G02B2207/129 provide classification entries for "orthogonal" features, i.e. features which may arise in the field in general.
- The set of Indexing Codes under G02B27/01 provide classification entries to cover further details of subject matter covered by G02B27/01 and not provided for in its subgroups.

Glossary of terms

In this subclass, the following terms (or expressions) are used with the meaning indicated:

Optics, optical	Infrared, visible or ultraviolet optics
Active optics	Optics based on the optical properties of a material used being altered by the application of external energy, e.g. electrical, magnetic, thermal or optical energy
Passive optics	Optics in which the optical properties of a material used are not altered by the application of external energy; external forces may act, however, to alter the shape, position or orientation of an optical element used.
Catoptric	Optical systems involving reflective surfaces only
Catadioptric	Optical systems involving reflective and refractive surfaces
Simple lens or prism	A single lens or prims
Compound lens or prism	An optical member, the constituents of which either are close together without air-space are "in broken contact", i.e. with the air-space between the constituents having no essential optical influence;
Objective	A lens or an optical system designed to produce a real image of a real object;
Eyepiece	A lens or an optical system designed to produce a virtual image for viewing by the eye or by another optical system
Front, rear	Determined by looking from the more distant conjugate.

G02B1/00

Insert:

References relevant to classification in this group

This group does not cover:

Composition of optical glasses	C03C3/00
Cements for glass	C03C27/00

G02B3/00

Insert:

References relevant to classification in this group

This group does not cover:

Artificial eyes	A61F2/14
Ophthalmic lenses	G02C
Watch or clock glasses	G04B39/00

G02B5/00

Insert:

References relevant to classification in this group

This group does not cover:

Light guides	G02B6/00
Optical logic elements	G02F3/00

G02B5/08

Insert:

References relevant to classification in this group

This group does not cover:

Vehicle mirrors as such	B60R1/08

G02B5/204

Insert:

References relevant to classification in this group

This group does not cover:

Frequency filtering for aerials	H01Q15/0006

G02B5/32

Delete: Current definition

Insert:

Definition statement

This group covers:

Holograms used as optical elements

References relevant to classification in this group

This group does not cover:

Hologram used in scanning systems	G02B26/106

Informative references

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

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

Holography	G03H

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

HOE	Holographic optical element

G02B6/00

Insert:

References relevant to classification in this group

This group does not cover:

Medical endoscopes	A61B1/00
Surgical instruments	A61B18/22
Devices for illuminating a surgical field	A61B19/52
Manufacture of plastic optical fibres	B29D11/00663
Manufacture of glass optical fibres	C03B37/01
Glass compositions for optical fibres	C03C13/04
Process of coating of optical fibres	C03C25/10
Sensing by attenuation	G01D5/353
Measuring temperature using optical fibre gratings	G01K11/3206
Measuring force or strain using an optical fibre	G01L1/246
Testing of light guide systems	G01M11/30
Investigating or analysing materials	G01N21/00
Organic materials for light guides	G02B1/045
Endoscopes using optical fibres for illumination	G02B23/2469
Endoscopes with light guides	G02B23/26

G02B6/0001

Delete: Current Definition statement

Insert:

Definition statement

This group covers:

Aspects of the light guides for illumination per se as well as light coupling aspects.

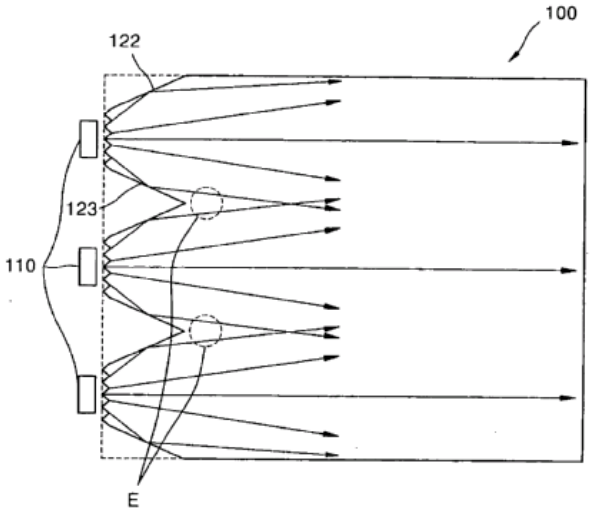
Further details of subgroups

G02B6/0016

Illustrative example of the subject matter classified in this group:

Patent Application Publication Oct. 21, 2004 Sheet 5 of 7 US 2004/0207775 A1

FIG. 7



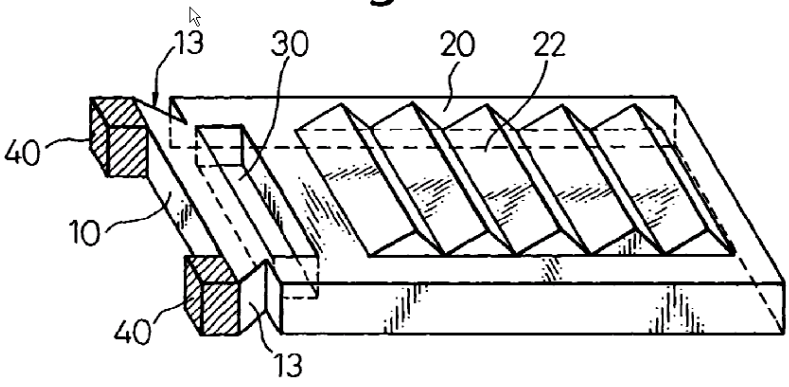
Grooves in the light input face of light guide 100. (Source US2004/0207775 A1).

G02B6/0018

Illustrative example of the subject matter classified in this group:

EP 1 113 218 A1

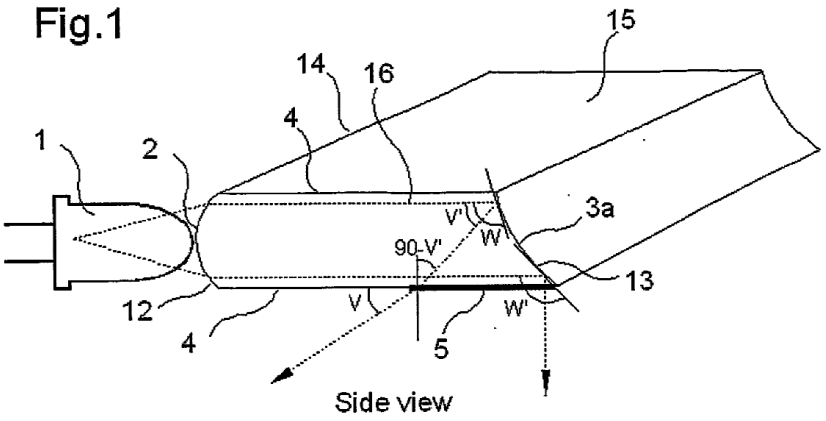
Fig.13



Redirecting reflective surfaces 13. (Source EP1113218 A1).

G02B6/002

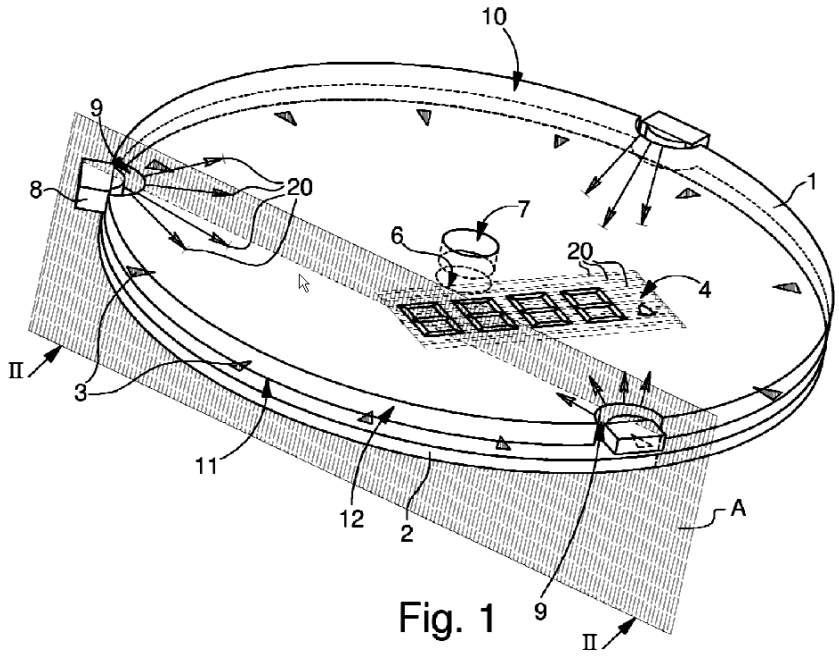
Illustrative example of the subject matter classified in this group:



Input face 2 shaped as a lens surface. (Source WO 2004/104476).

G02B6/0021

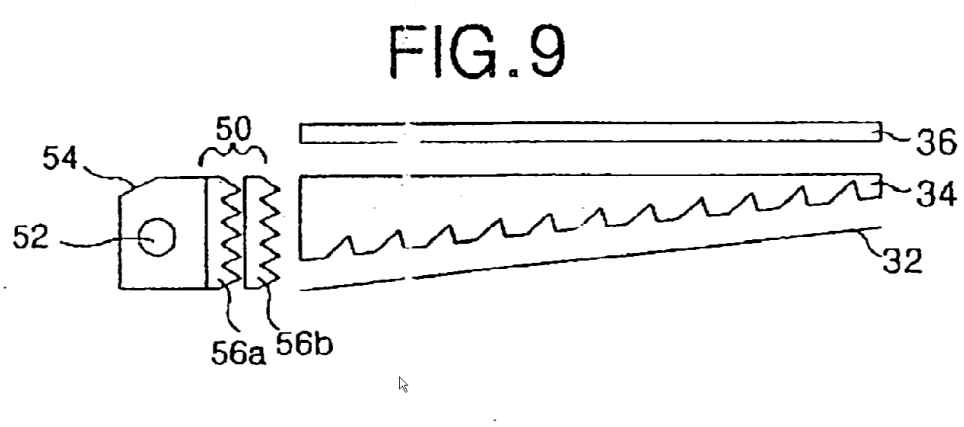
Illustrative example of the subject matter classified in this group:



Recesses 9 in the light guide housing the light sources 8. (Source EP1666936 A1).

G02B6/0025

Illustrative example of the subject matter classified in this group:

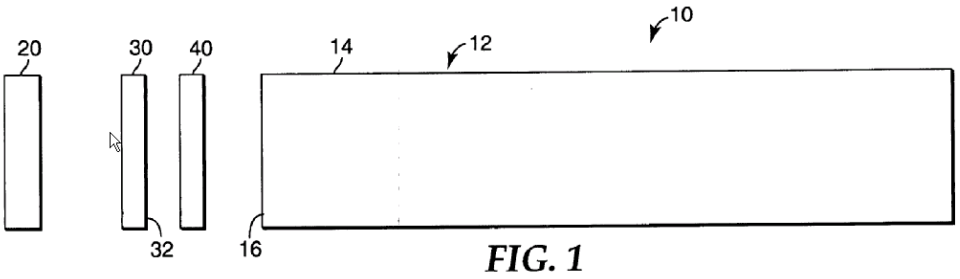


Prismatic sheets 56a, 56b between light source 52 and light guide 34. (Source US2003/0117793 A1).

G02B6/0026

Illustrative example of the subject matter classified in this group:

US 2006/0002678 A1



Interference reflector 30 as wavelength selective element between light source 20 and light guide 12. (Source US2006/0002678 A1).

G02B6/0028

Illustrative example of the subject matter classified in this group:

Patent Application Publication Jan. 12, 2006 Sheet 1 of 3 US 2006/0007702 A1

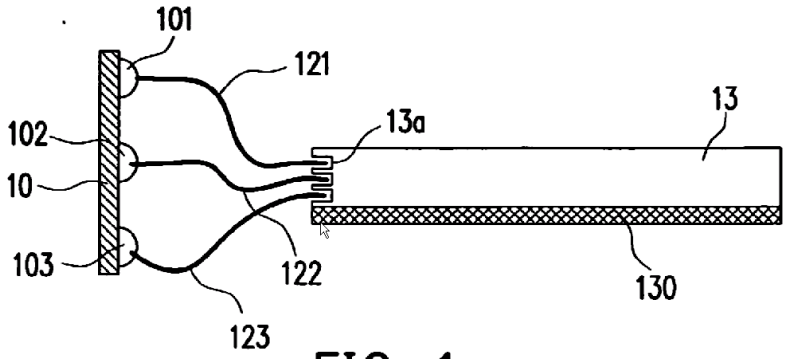
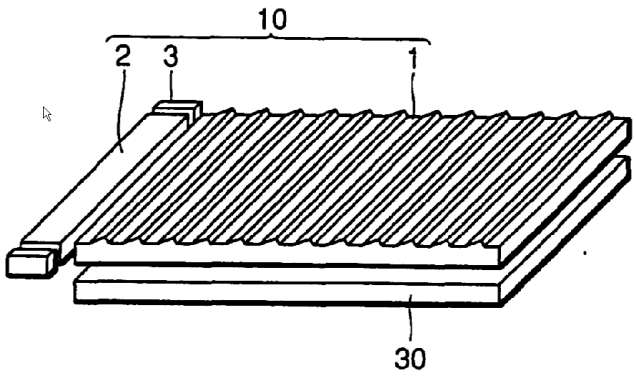


FIG. 1a

Intermediate light guides (optical fibers 121, 122, 123) for coupling into light guide plate 13. (source US2006/0007702 A1).

EP 1 139 015 A1

FIG. 1

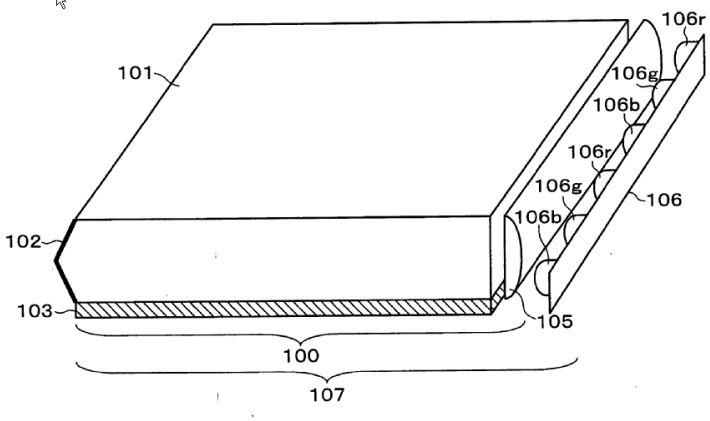


Intermediate light guide rod 2 with sideways coupling into light guide 1. (Source EP 1139015 A1).

G02B6/003

Illustrative example of the subject matter classified in this group:

FIG. 2

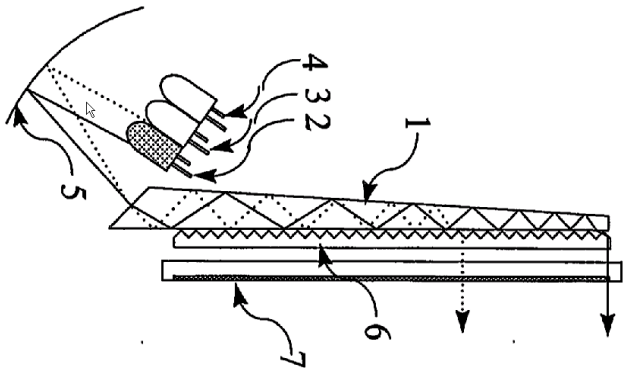


EP 1 574 780 A1

Intermediate lens 105, also used for lens sheets. (Source EP 1574780 A1)

G02B6/0031

Illustrative example of the subject matter classified in this group:



WO 2004/109380

Reflector 5. (Source WO2004/109380).

G02B6/0036

Illustrative example of the subject matter classified in this group:

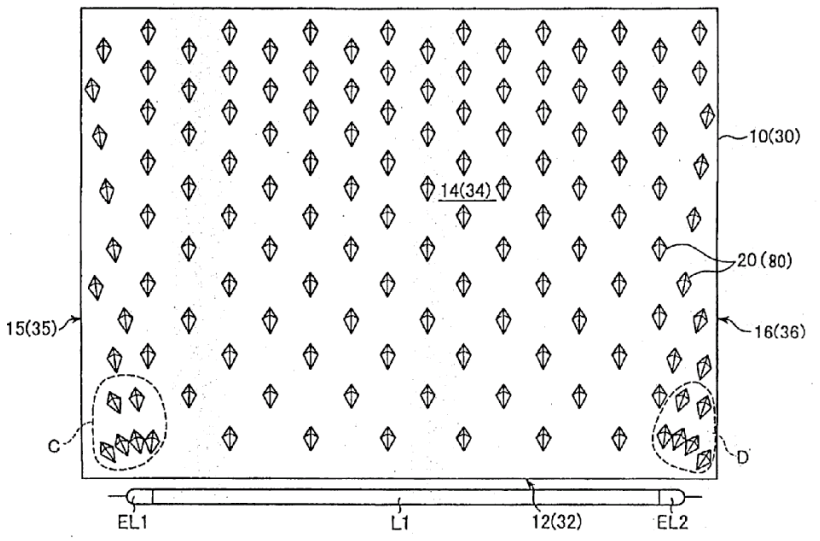


Fig.2

Application Publication Aug. 21, 2003 Sheet 2 of 17 US 2003/0156403 A1

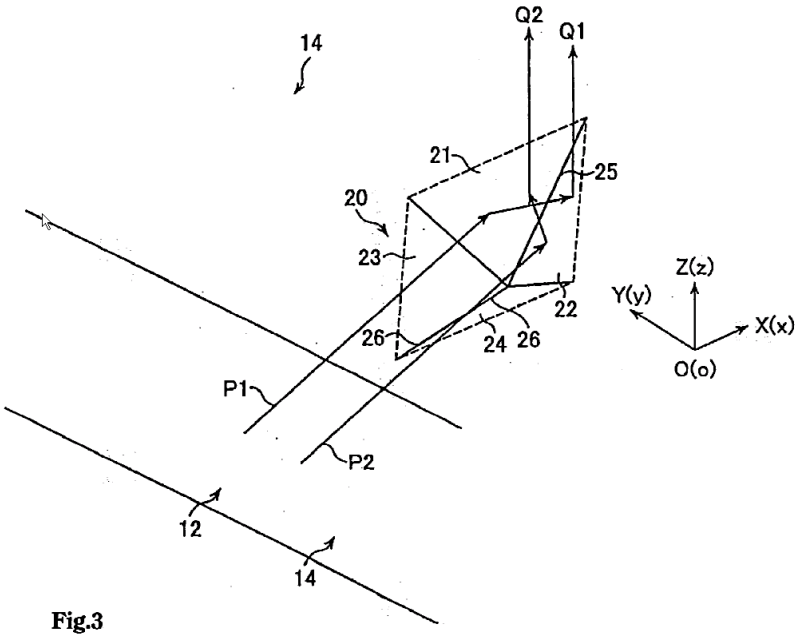
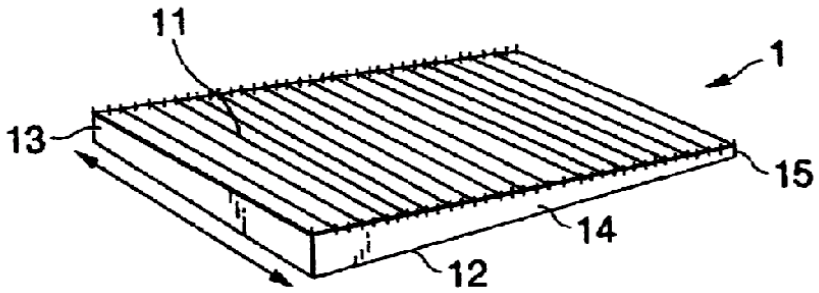


Fig.3

Protrusions 20 arranged in a 2D-array (applied for both regular and irregular arrays). (Source US2003/0156403 A1).

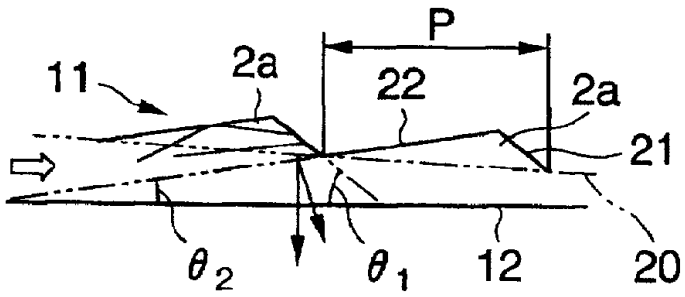
G02B6/0038

Illustrative example of the subject matter classified in this group:



EP 0 939 273 A1

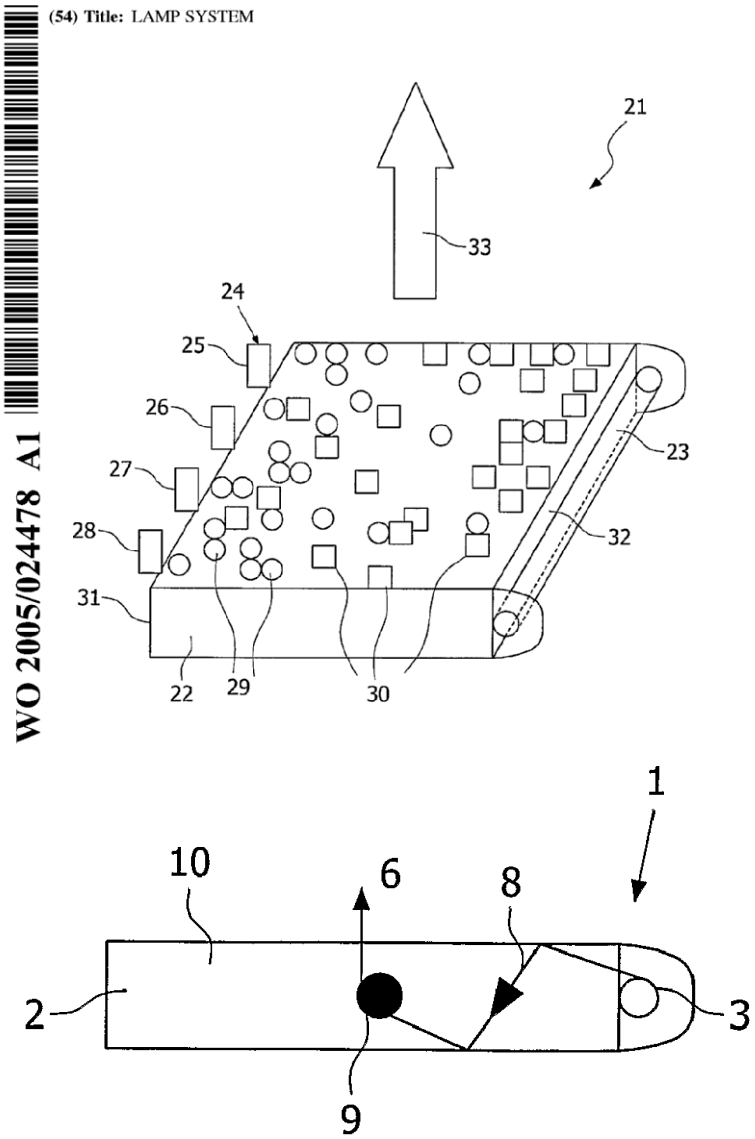
FIG.3A



Grooves 11. (Source EP 939273 A1)

G02B6/0041

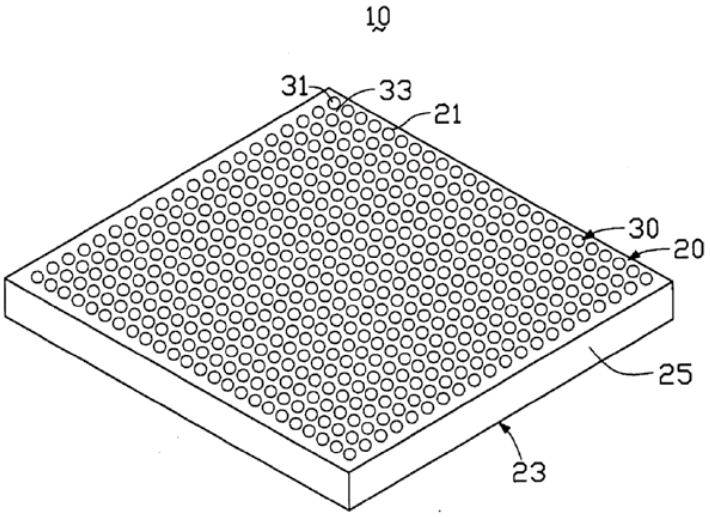
Illustrative example of the subject matter classified in this group:



Scattering particles 29, 30 in the bulk. (Source WO2005/024478).

G02B6/0043

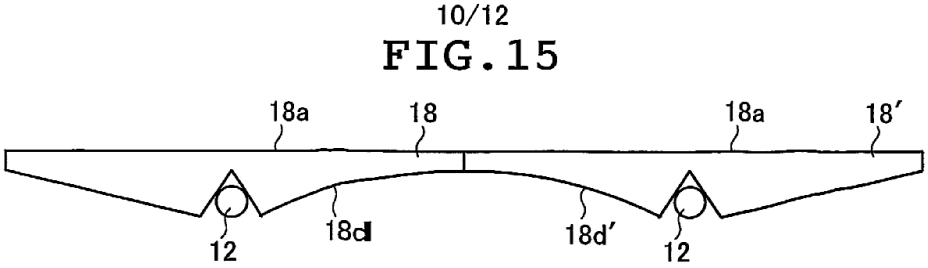
Illustrative example of the subject matter classified in this group:



Scattering dots 31 on the surface of the light guide 20. (Source US 2004/0228109 A1).

G02B6/0046

Illustrative example of the subject matter classified in this group:



Variation of the thickness of light guide plates. (Source WO2005/080863).

G02B6/0048

Illustrative example of the subject matter classified in this group:

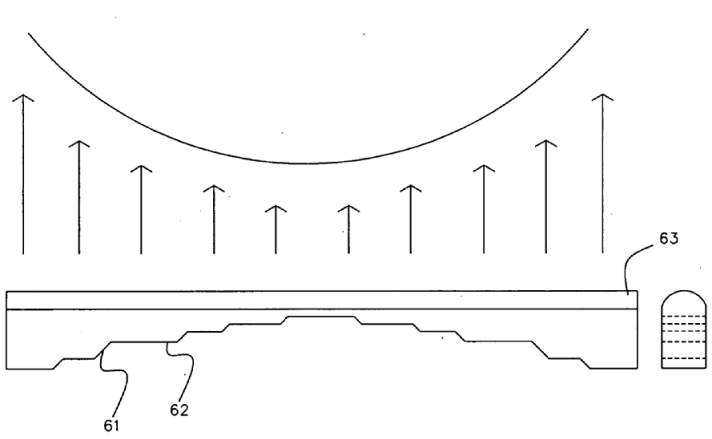


Figure 6

Application Publication Nov. 10, 2005 Sheet 6 of 7 US 2005/0248959 A1

Stepped variation of the thickness of light guide plates. (source US2005/0248959 A1).

G02B6/005

The mere indication that a diffusion film, a prism film or a reflecting film is present does not justify classifying in G02B6/005 and its subclasses. At least some details of these elements have to be given in the document.

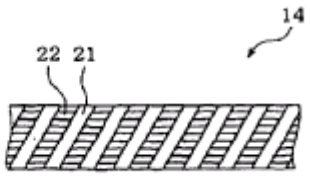
G02B6/0051

Illustrative example of the subject matter classified in this group:

Insert: New graphic below

Fig. 6

Fig. 10



Diffusion film 14. (Source EP 1677047 A1).

G02B6/0053

Illustrative example of the subject matter classified in this group:

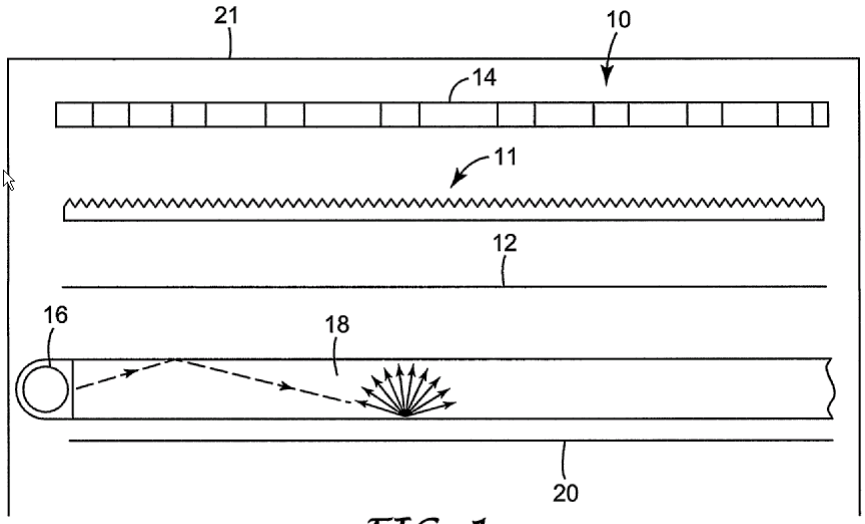


FIG. 1

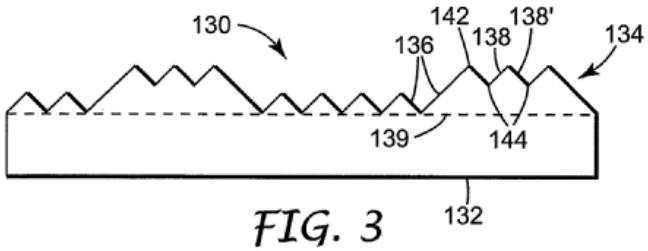


FIG. 3

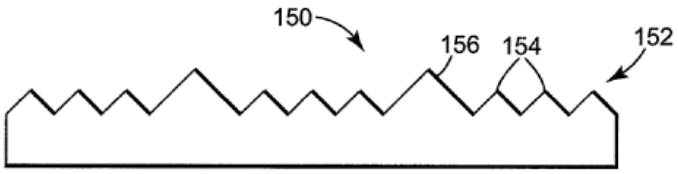


FIG. 4

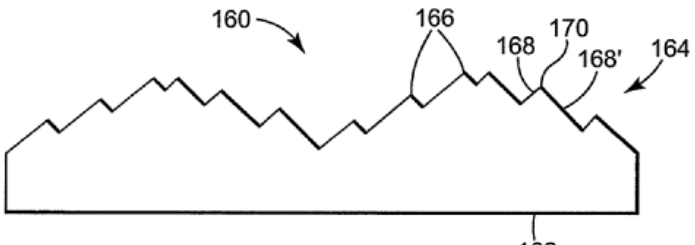
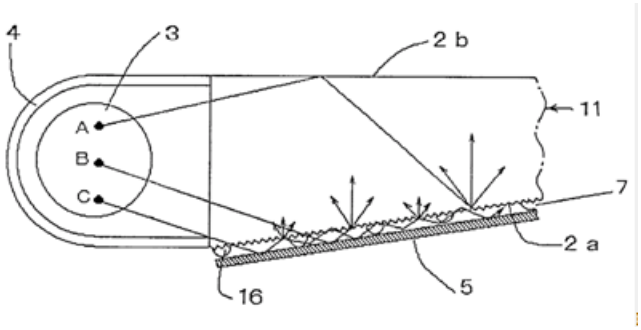


FIG. 5

Prism film 11. (Source WO2005/026793).

G02B6/0055

Illustrative example of the subject matter classified in this group:



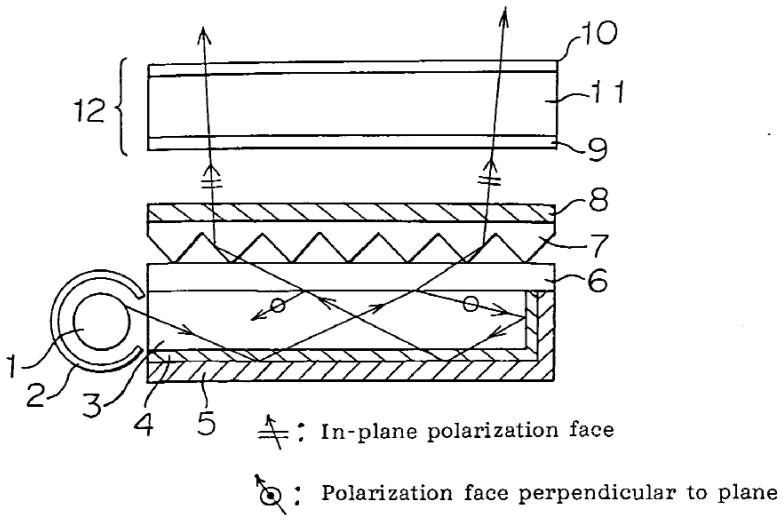
Reflection sheet 5. (Source US 6,486,931 B1).

G02B6/0056

Illustrative example of the subject matter classified in this group:

EP 0 597 261 A1

FIGURE 1

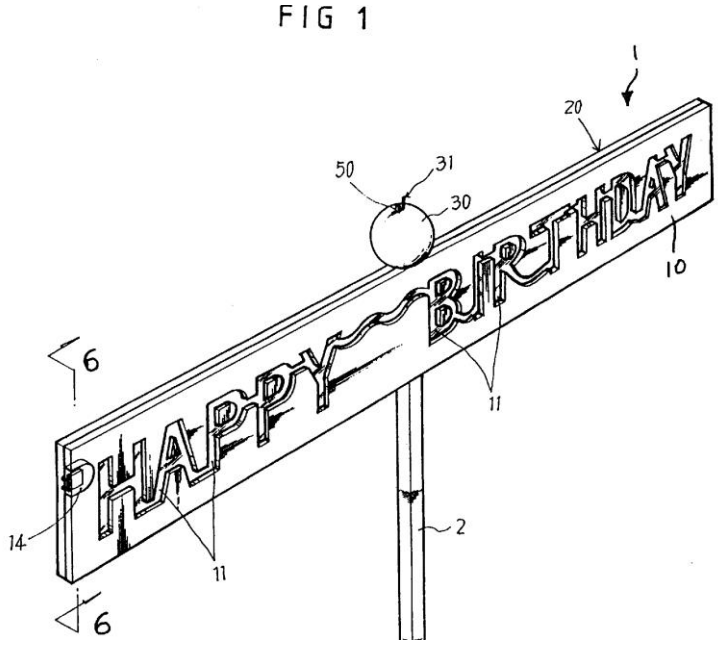


(Source EP 0597261 A1).

G02B6/006

Illustrative example of the subject matter classified in this group:

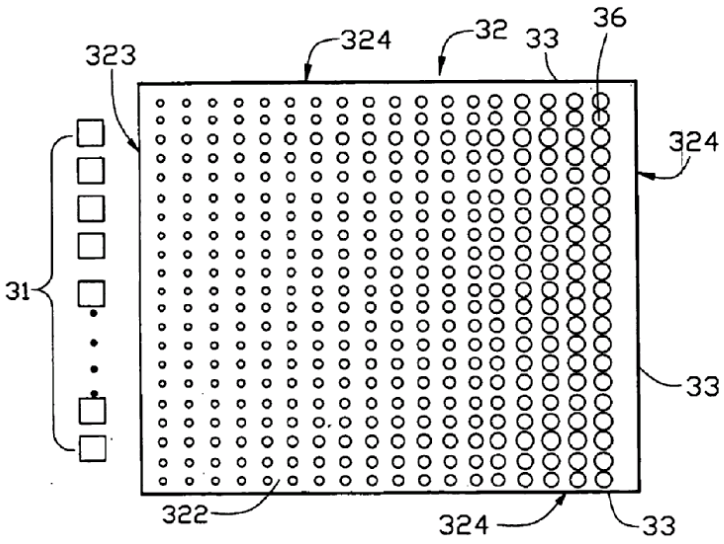
U.S. Patent Dec. 8, 1998 Sheet 1 of 4 5,846,070



Variations purposely generating inhomogeneous light output, e.g. to display indicia or text. (Source US 5,846,070).

G02B6/0061

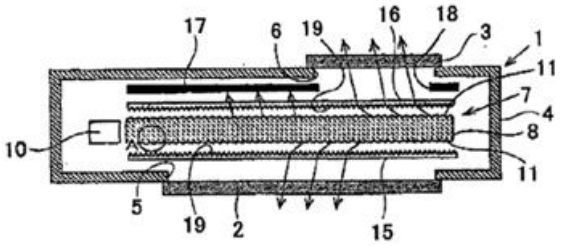
Illustrative example of the subject matter classified in this group:



Variations (dot size) to compensate non-uniformities of light propagating in the light guide, so as to achieve homogeneous output intensity. (Source US2004/0136173 A1).

G02B6/0063

Illustrative example of the subject matter classified in this group:



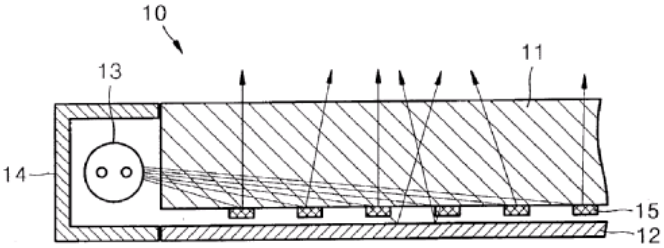
Light exits through top and bottom surfaces. (Source DE102004038344 A1).

G02B6/0065

Manufacturing and material aspects of light guides having one of the features classified in G02B6/0033 and G02B6/0013 and lower.

Note: when classifying in this group, classification must also be made in one or more of the groups of G02B6/0013 or G02B6/0033 for the related device aspects

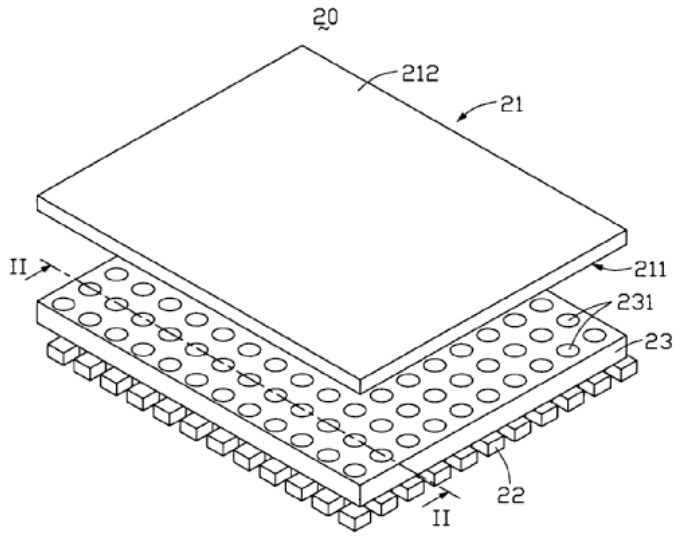
Illustrative example of the subject matter classified in this group:



The invention relates to the manufacturing apparatus for surface light source apparatus 10 and includes a pattern design system for designing the light guide pattern portions 15. (Source US 2003/0210539 A1).

G02B6/0068

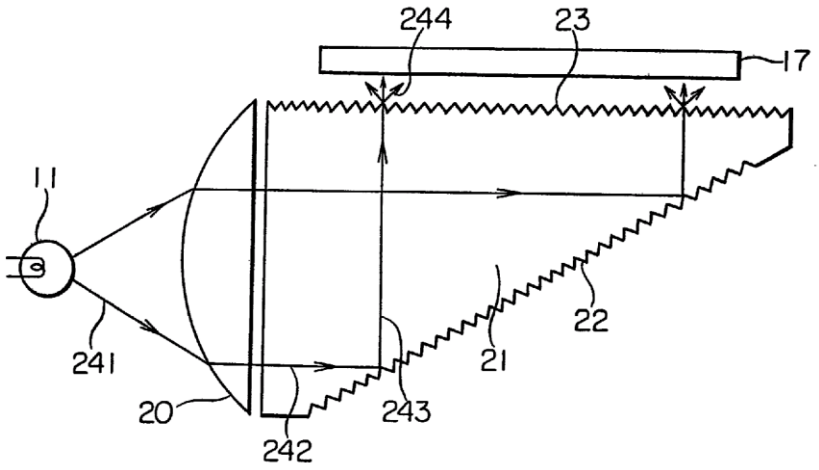
Illustrative example of the subject matter classified in this group:



Plural light sources 22. (Source US 2006/0245210 A1).

G02B6/007

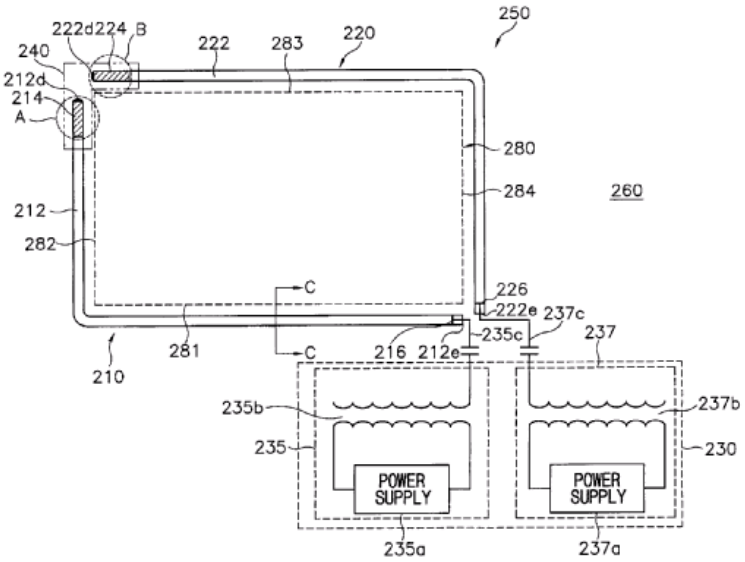
Illustrative example of the subject matter classified in this group:



Lamp 11. (Source GB 2180051 A).

G02B6/0071

Illustrative example of the subject matter classified in this group:

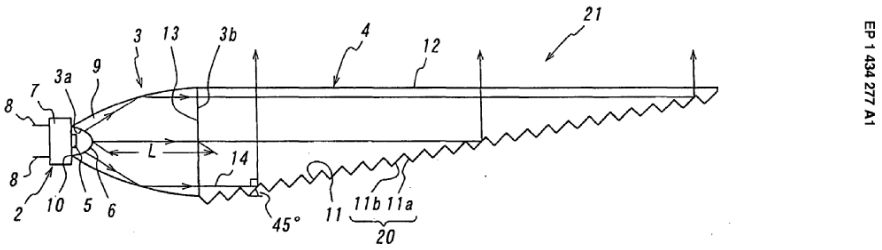


Lamp tubes 212 and 222. (Source US 2003/0198038 A1).

G02B6/0073

The mere indication that an LED is used does not justify classifying in this group.

Illustrative example of the subject matter classified in this group:

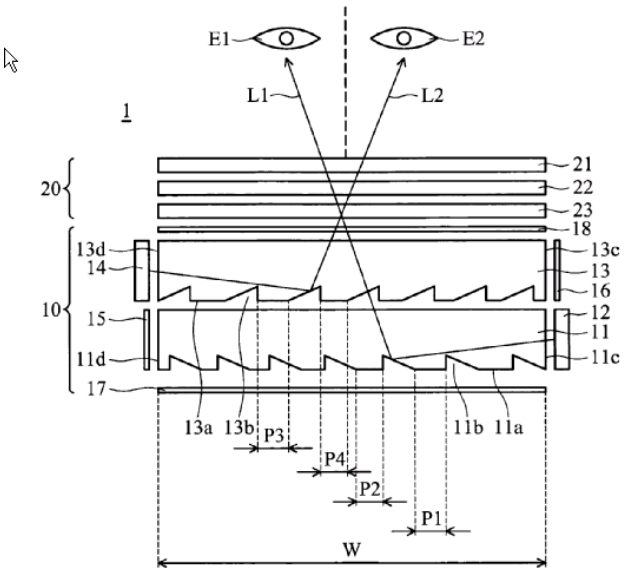


Translucent concave end face 3a has the same curvature as a translucent convex face 6 of the LED lamp 2 (Source EP 1434277 A1).

G02B6/0076

Illustrative example of the subject matter classified in this group:

Patent Application Publication Jul. 27, 2006 Sheet 1 of 6 US 2006/0164862 A1



Stacked light guide plates 11 and 13. (Source US 2006/0164862 A1).

G02B6/0078

Illustrative example of the subject matter classified in this group:

DE 10 2004 046 256 A1 2006.04.06

FIG 5A

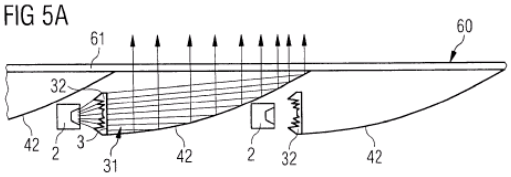
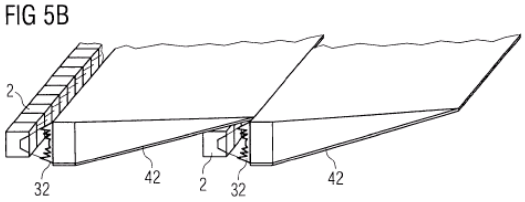


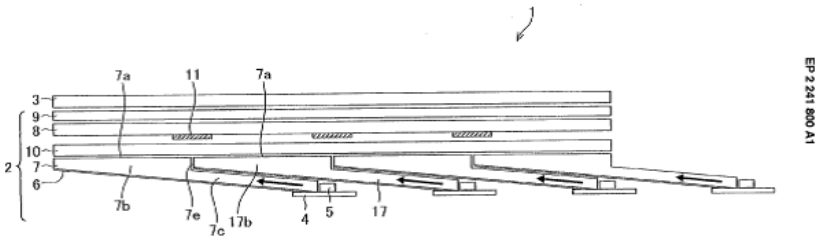
FIG 5B



(Source DE 102004046256).

G02B6/008

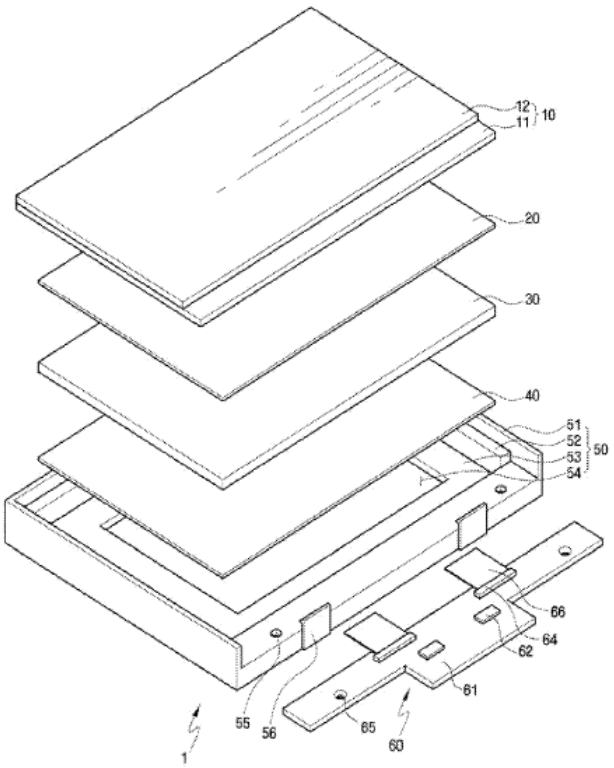
Illustrative example of the subject matter classified in this group:



Sections 7b and 7c of adjacent light guides overlap. (Source EP 2241800 A1).

G02B6/0083

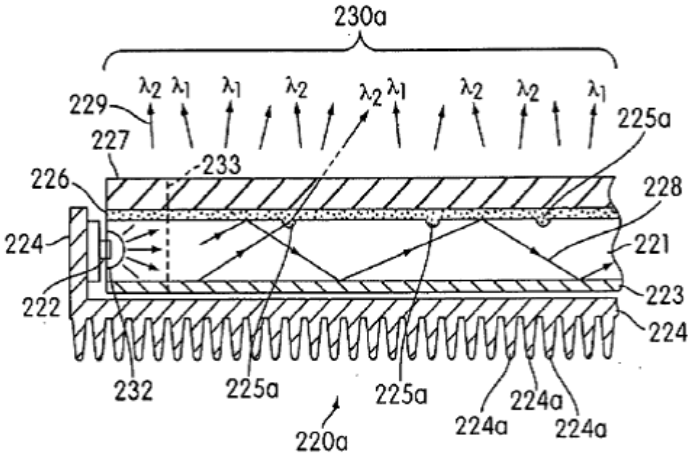
Illustrative example of the subject matter classified in this group:



Chips 62, Wiring elements 66. (Source US 2010/0246209 A1).

G02B6/0085

Illustrative example of the subject matter classified in this group:

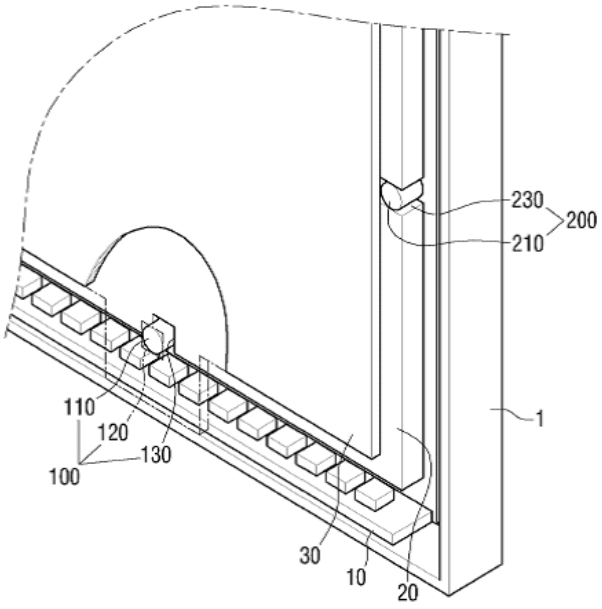


Heat sink 224. (Source US2010/0027293 A1).

G02B6/0088

Illustrative example of the subject matter classified in this group:

FIG. 5



Fixing projections 110, 210 in the housing and support grooves 130, 230 in the light guide for fixing the light guide in the housing. (Source EP 2259104 A2).

G02B6/009

Illustrative example of the subject matter classified in this group:

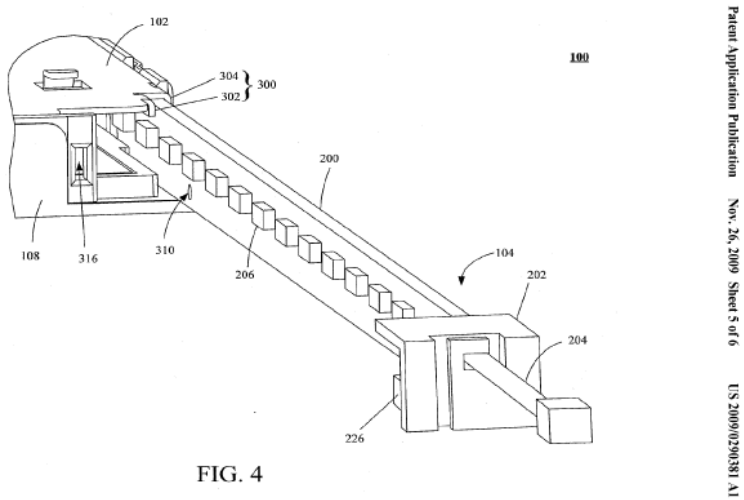


FIG. 4

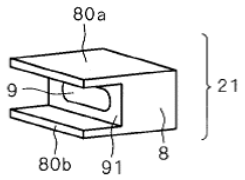
Patent Application Publication Nov. 26, 2009 Sheet 5 of 6 US 2009/0290381 A1

Guiding structure 300 and securing device 202 for fixing the light source in the housing. (Source US2009/0290381 A1).

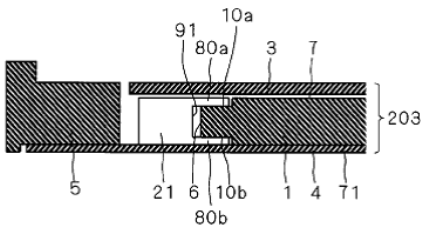
G02B6/0091

Illustrative example of the subject matter classified in this group:

F I G . 7



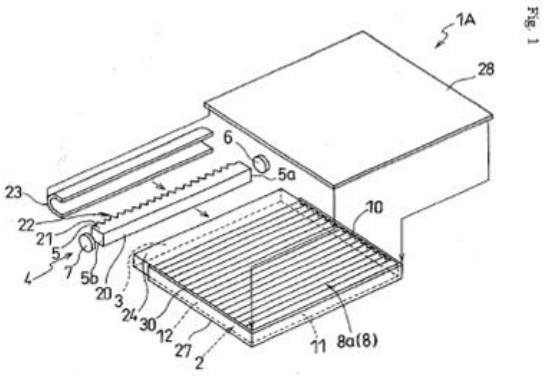
F I G . 8



This group is used for devices holding the light source(s) and being directly attached to the light guide, like clamp 8 containing light emitter 9 and being attached to light guide plate 1. (Source US 2007/0285944 A1).

G02B6/0093

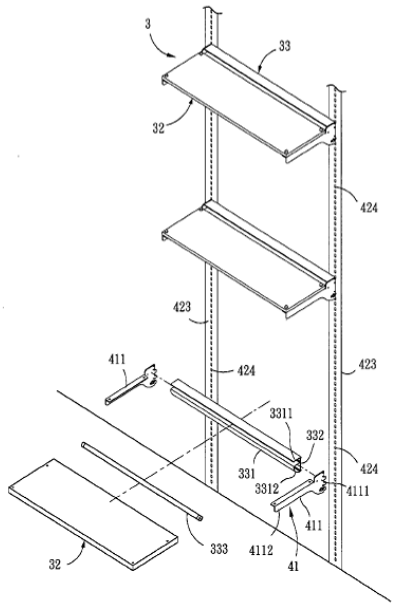
Illustrative example of the subject matter classified in this group:



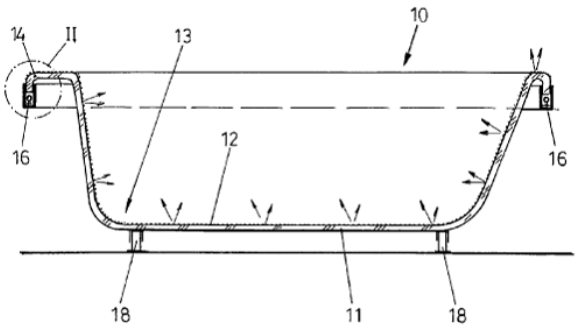
Protective cover 28. (Source EP 1283391 A2).

G02B6/0095

Illustrative example of the subject matter classified in this group:



Shelves 32 formed as light guide panels. (Source US 2004/0264161 A1).



Bath tub with light guide 11 and light source 16. (Source WO 02/100230).

Relationship between large subject matter areas

G02B6/0001 and subgroups include backlights comprising light guides for liquid crystal display panels. Other aspects (other than the light guide) of liquid crystal display backlights are classified in G02F1/1336. Direct backlights not including a light guide are classified in G02F1/133602.

Informative references

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

Lighting or signalling on vehicles using light guides	B60Q1/00
Lighting devices for vehicle interior using light guides	B60Q3/002
Lighting devices for vehicle dashboards	B60Q3/04
Lighting devices mounted on the vehicle rear part using light guides	F21S48/2225
Measuring arrangements having light conducting pointers	G01D13/265
Illumination of liquid crystal displays	G02F1/1336
Illuminated signs	G09F13/00

Special rules of classification within this subgroup

Light guides in the form of long rods for illumination are classified in G02B6/0005 and subgroups. The Indexing Codes corresponding to G02B6/0001 to G02B6/001 and G02B6/0096 are in F21V2008/00.

G02B6/02

Insert:

Definition statement

This group covers:

Optical and mechanical properties of optical fibres per se as well as optical fibres with an integral optical element, such as a Bragg grating.

Further details of subgroups

G02B6/02004

What is considered large or small usually depends on the type of fibre. For example an area of 50 square microns can be considered large for a dispersion compensating fibre (then G02B6/02009 and G02B6/02261 should be given) but not large for a non-zero

dispersion shifted fibre (i.e. not classified in G02B6/02004).

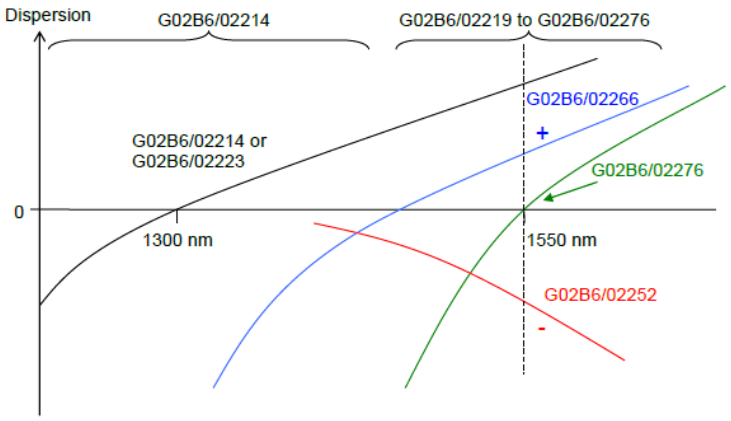
G02B6/02033

Graded multimode plastic optical fibres are classified in G02B6/02038 not G02B6/0288. Fibres compensating modal dispersion are usually classified in G02B6/0288 or G02B6/02038 as they typically involve a graded index multimode fibre. 1 mm core graded POF is classified in G02B6/02038.

G02B6/02214

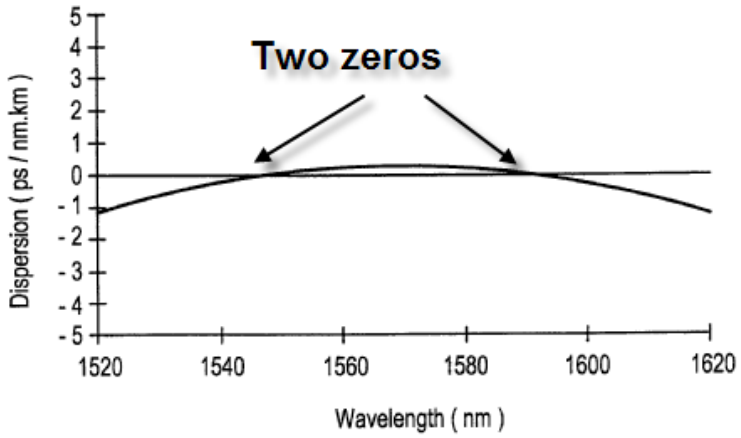
G02B6/02214 is for dispersion tailoring only at wavelengths other than around the 1550nm window (e.g. for 850 nm, 1300 nm). G02B6/02223 is for dispersion tailoring at 1550nm and another wavelength, e.g. 1300 nm, in the same optical fibre.

Illustrative example of the subject matter classified in this group:



G02B6/02233

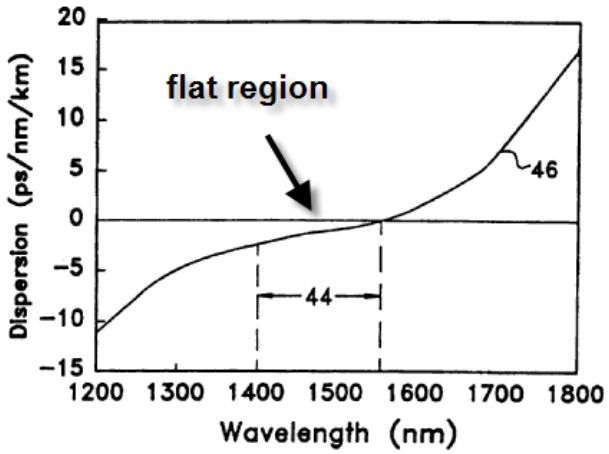
Illustrative example of the subject matter classified in this group:



(Source WO9942869).

G02B6/02242

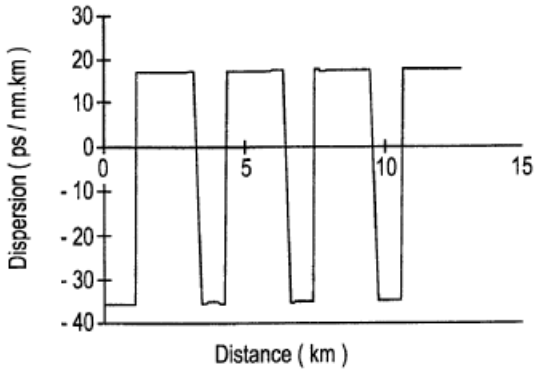
Illustrative example of the subject matter classified in this group:



(Source WO9733188).

G02B6/02247

Illustrative example of the subject matter classified in this group:



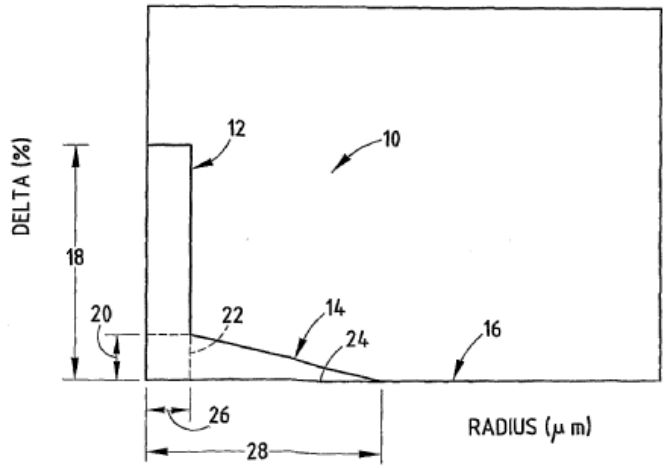
(Source WO9942869).

G02B6/028

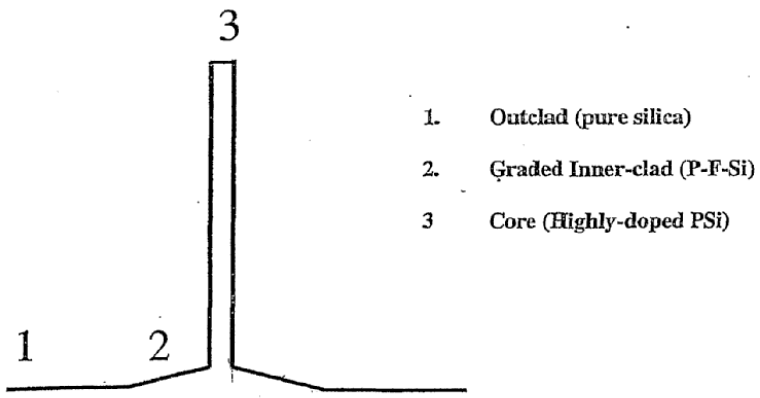
Graded multimode plastic optical fibres are classified in G02B6/02038 not G02B6/0288. Fibres compensating modal dispersion are usually classified in G02B6/0288 or G02B6/02038 as they typically involve a graded index multimode fibre. 1 mm core graded POF is classified in G02B6/02038.

G02B6/0285

Illustrative example of the subject matter classified in this group:



(Source WO03012489).



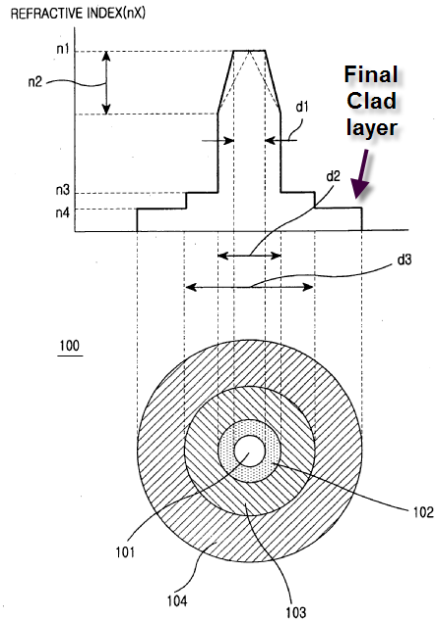
(Source WO02088041).

With reference to the notes to G02B6/03616, graded inner clad 2 is not considered a layer in the sense of G02B6/03616. Hence these examples are not for G02B6/03633.

G02B6/036

Some documents define the central core as the segment from the centre to where the refractive index delta is zero (e.g. US6421490 defines "the radius from the waveguide centerline to the location of the last refractive index point is the outer radius of the core segment."). The definition in the G02B6/03616 notes takes precedence.

The outer cladding is also considered a layer. If the coating affects the guiding due to its refractive index then it is also considered a cladding layer. Care must be taken not to count beyond the external clad e.g. the following example has 2 clad layers, the top figure can be misleading.



(Source EP1439408).

When the profile shows many alternating refractive index layers possibly G02B6/023 will be relevant.

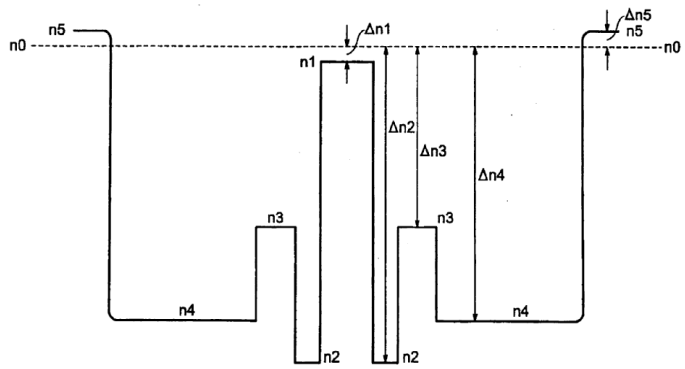
G02B6/036

Illustrative example of the subject matter classified in this group:

Radial asymmetry concept not reflected in lower subgroups. (Source WO2004023182).

G02B6/03605

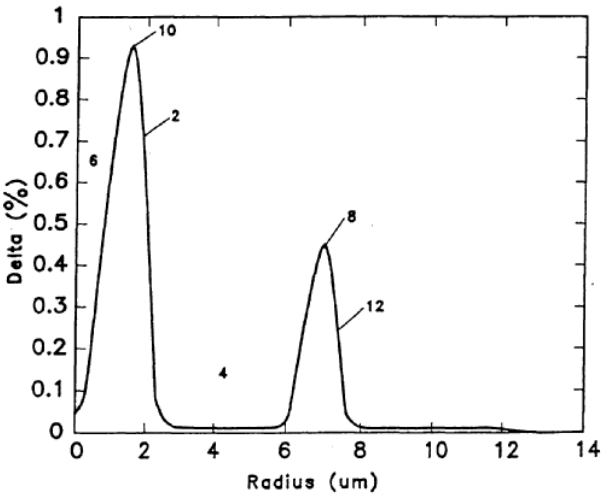
Illustrative example of the subject matter classified in this group:



(Source US2005089289).

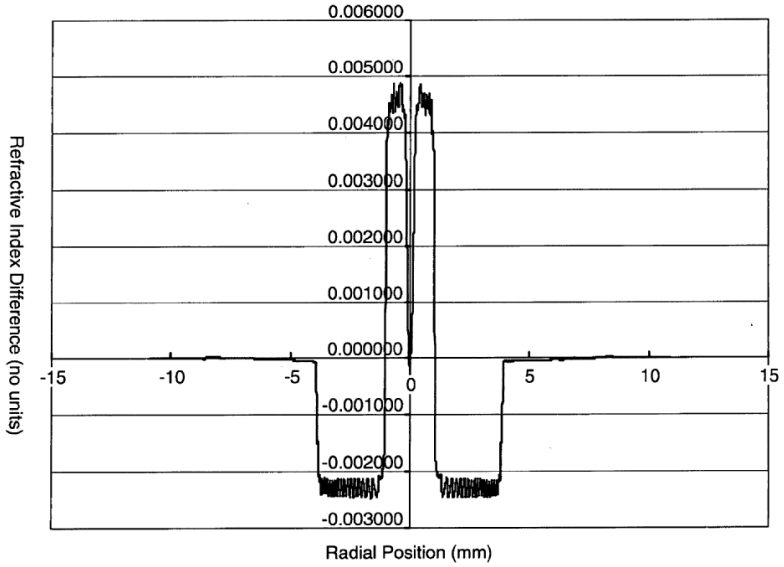
G02B6/03611

Illustrative example of the subject matter classified in this group:



(Source EP1158323).

G02B6/03611 as additional information is used for some documents where the profile has a centreline depression as a result of the manufacturing procedure but there is no purposeful effect on the guiding properties or dispersion properties.



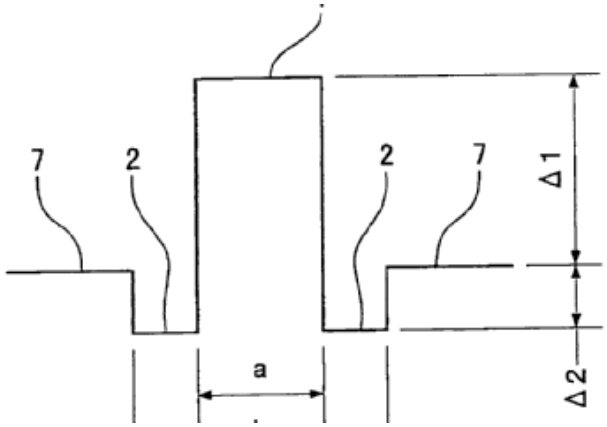
(Source US2006045449).

This is however not classified in G02B6/03611 Since the centreline dip does not affect the optical fibre properties and it is not discussed in the document in detail.

G02B6/03627

Illustrative example of the subject matter classified in this group:

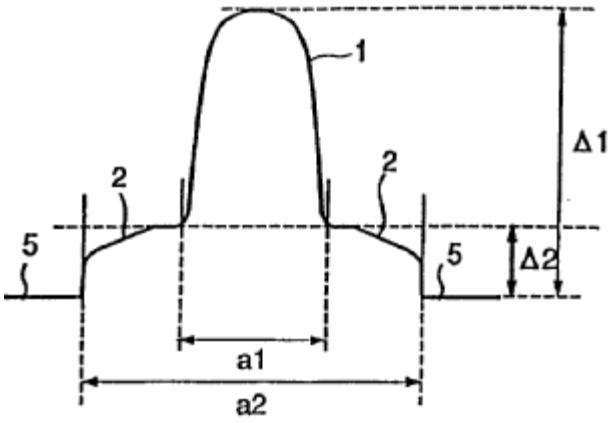
e.g. W profile



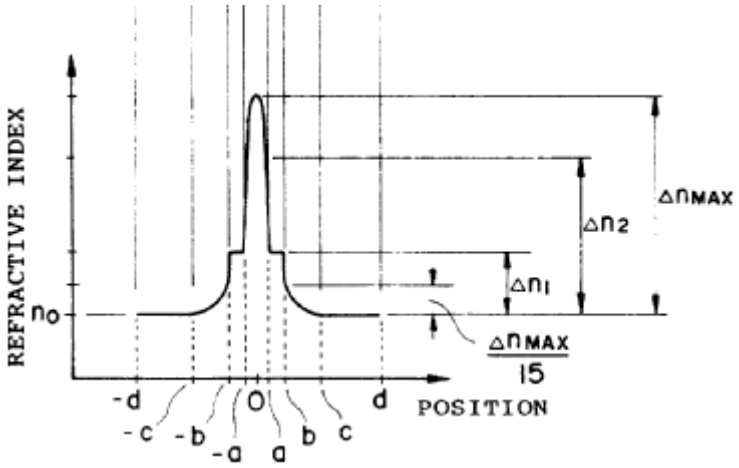
Layers 2 (- relative to central core of width a) and 7 (+ relative to 2). (Source US2007009218).

G02B6/03633

Illustrative example of the subject matter classified in this group:



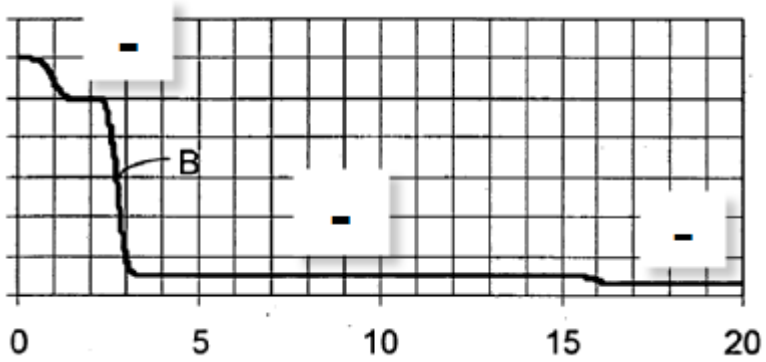
Two layers 2 and 5 around central core segment 1. Layer 2 is a layer in the sense of the G02B6/03616 definitions, and thus G02B6/0285 is not appropriate. (Source EP1189082).



Central core segment between -a and a, first layer (ring) between a and b, second layer (ring) between b and d. (Source EP856754).

G02B6/03638

Illustrative example of the subject matter classified in this group:

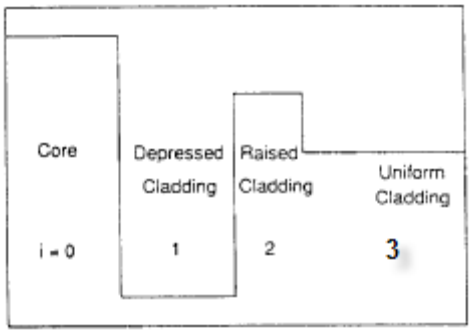


(Source US2007116418).

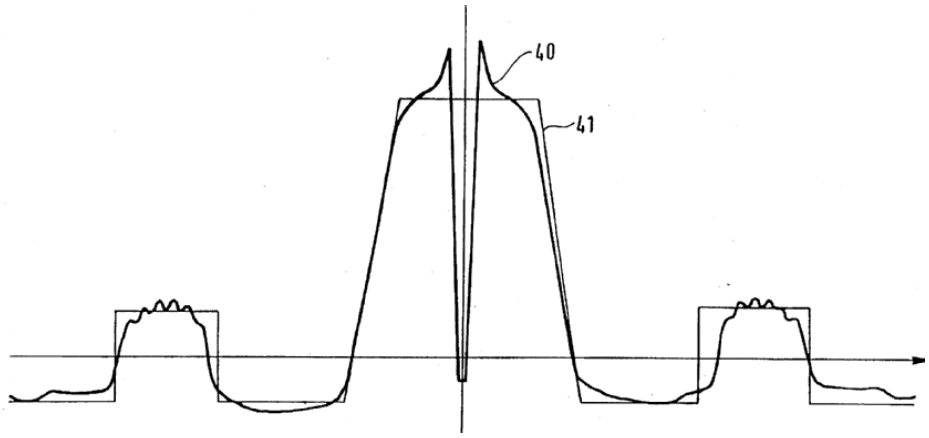
G02B6/03644

Illustrative example of the subject matter classified in this group:

e.g. WT profile



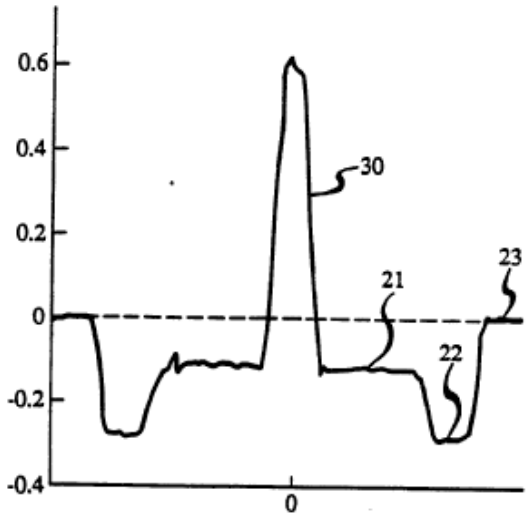
Layer 1 -, layer 2 +, layer 3 -. (Source: Li et al in Optical Engineering, Dec. 1994, Vol. 33, p. 3999 (XP484832)).



Central core segment 41 (design), 60 (measurement) with three surrounding layers arranged - + -. (Source US5659649).

G02B6/0365

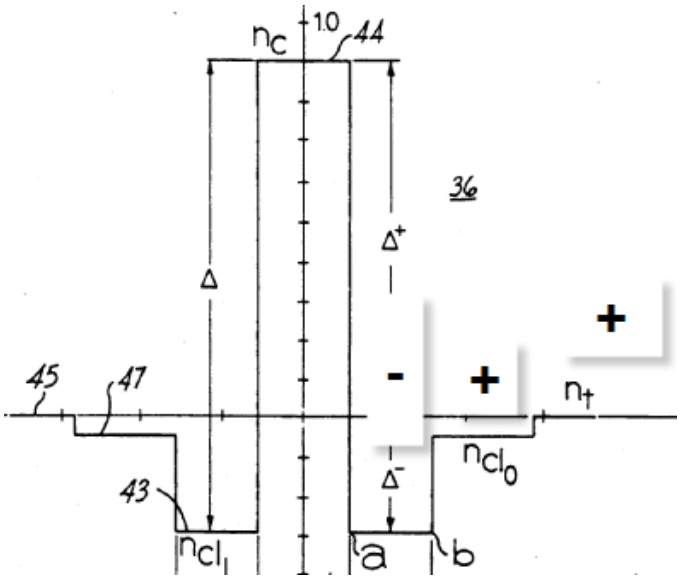
Illustrative example of the subject matter classified in this group:



- (21) - (22) + (23). (Source EP260795).

G02B6/03655

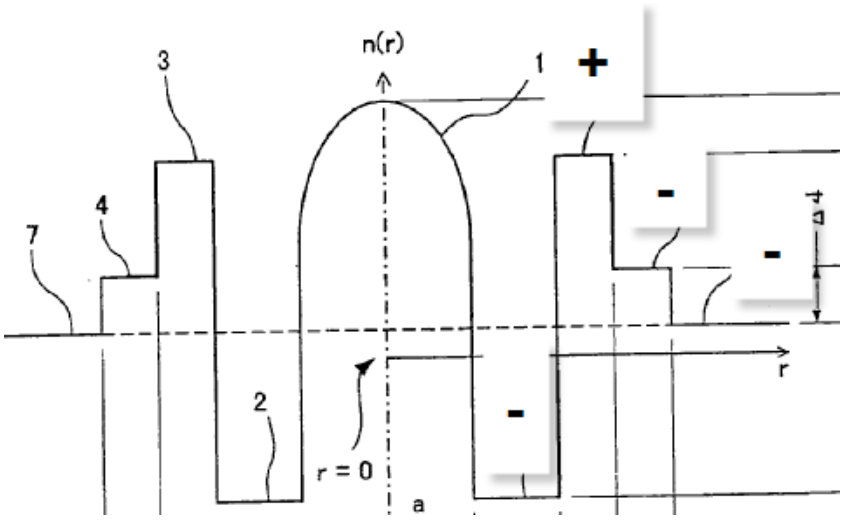
Illustrative example of the subject matter classified in this group:



(Source US5032001).

G02B6/03661

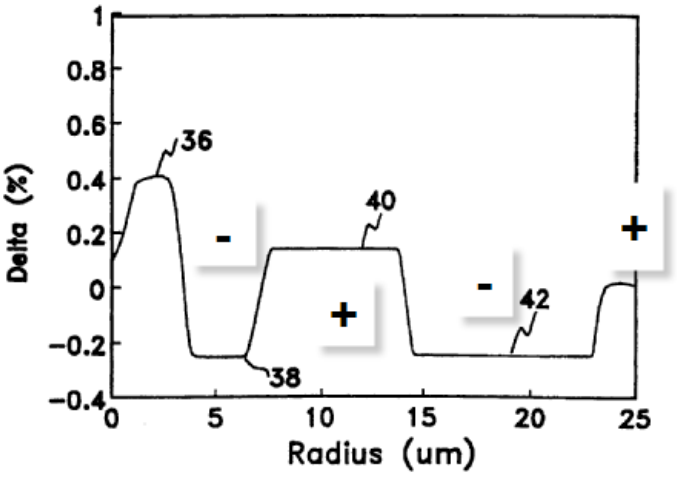
Illustrative example of the subject matter classified in this group:



(Source US2007009218).

G02B6/03666

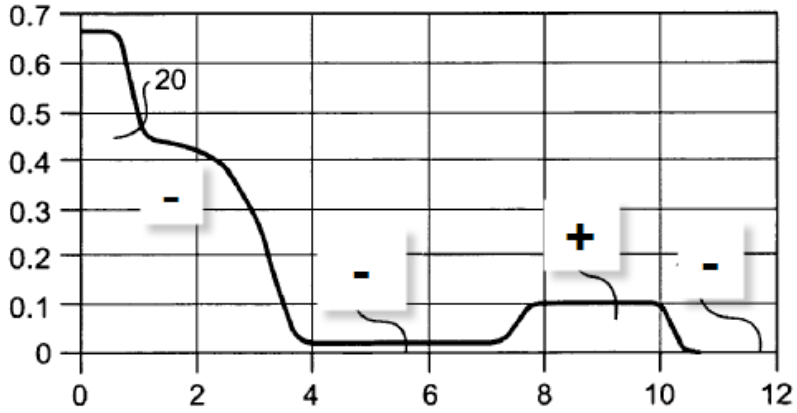
Illustrative example of the subject matter classified in this group:



(Source WO9733188).

G02B6/03672

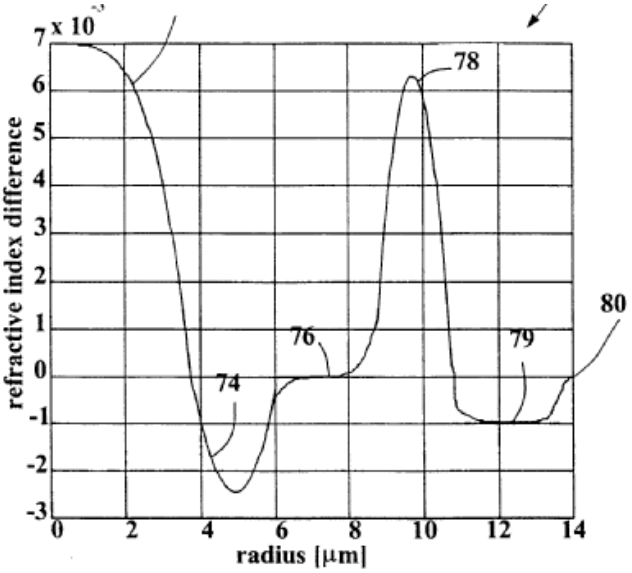
Illustrative example of the subject matter classified in this group:



(Source US2004067034).

G02B6/03677

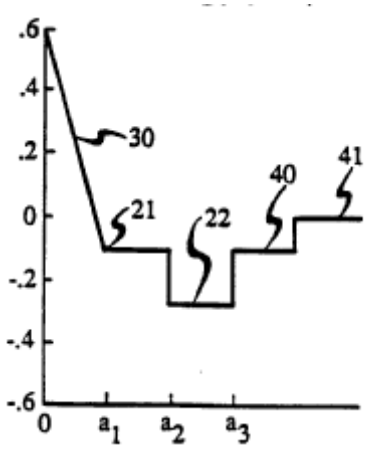
Illustrative example of the subject matter classified in this group:



- (74) + (76) + (78) - (79). (Source WO0017680).

G02B6/03683

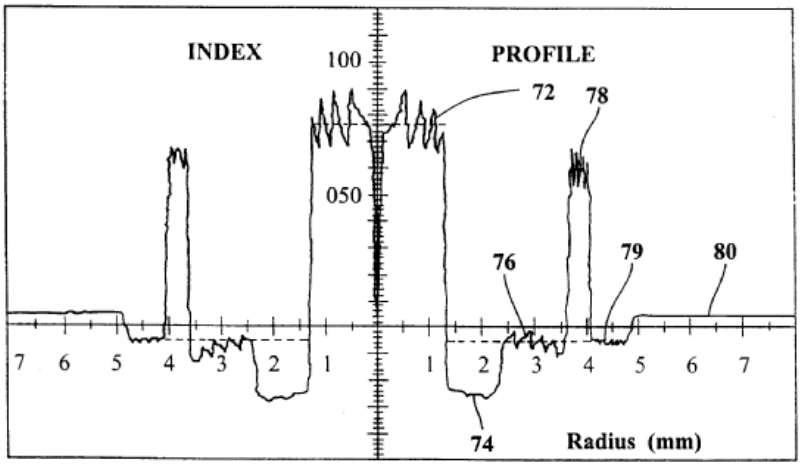
Illustrative example of the subject matter classified in this group:



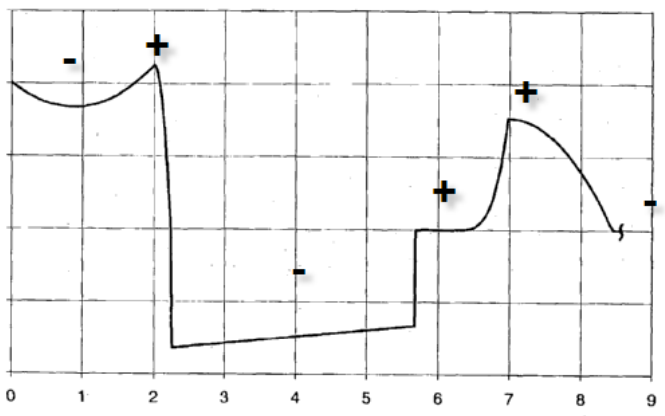
- (21) - (22) + (40) + (41). (Source EP260795).

G02B6/03688

Illustrative example of the subject matter classified in this group:



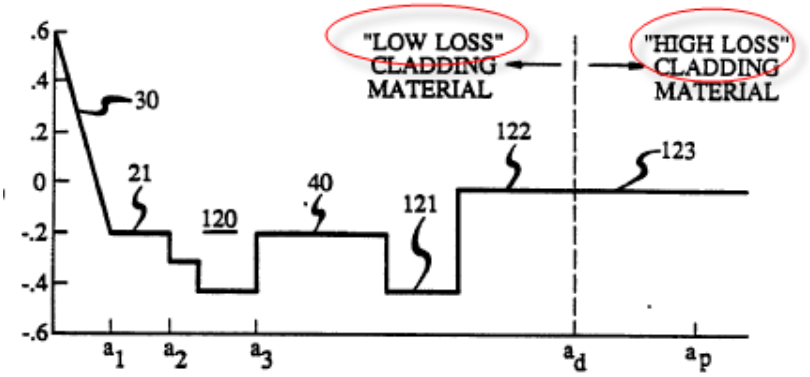
74-80= 5 layers. (Source WO0017680).



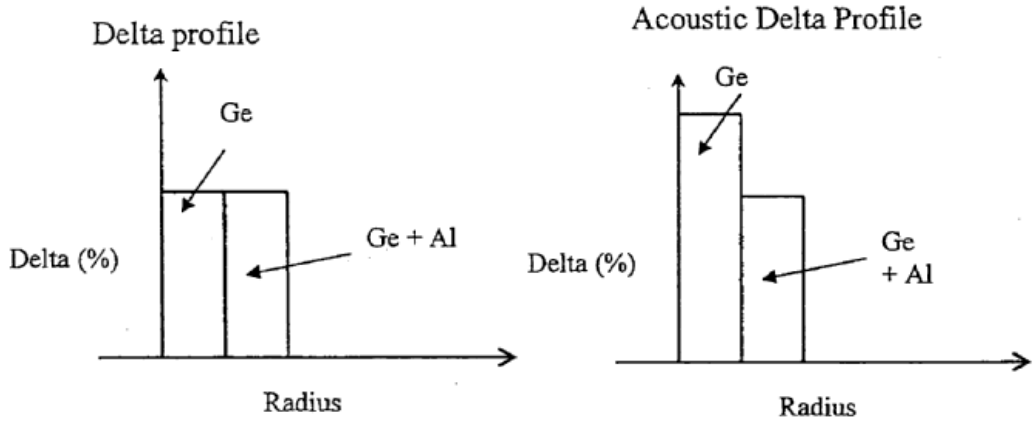
6 layers. (Source US2005013571).

G02B6/03694

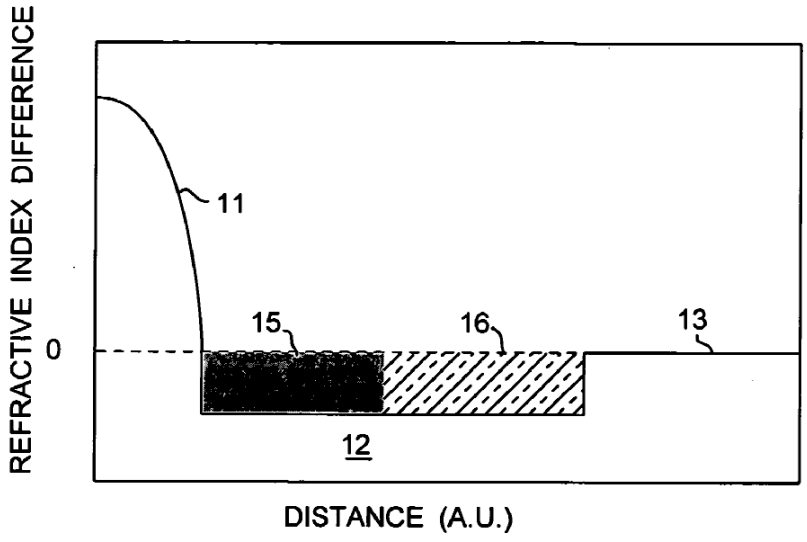
Illustrative example of the subject matter classified in this group:



Layers 122 and 123 have the same refractive index but different loss properties. (Source EP0260795).



The Ge and Ge+Al l have the same refractive index but different acoustic properties. (Source US2007116416).



Layers 15 and 16 have the same refractive index but are formed by different methods so that layer 15 has lower losses but takes longer to form. (Source US2007204657).

Indexing Codes

Fluid core or claddings are classified in G02B6/032 and G02B2006/0325. No corresponding group exists for Indexing Code G02B2006/0325.

G02B6/10

Insert:

References relevant to classification in this subgroup

This group does not cover:

Light guides for illumination	G02B6/0001
Optical fibres except for infra-red and ultraviolet transmitting optical fibres and optical fibres having polarisation effects	G02B6/02
Polarisation maintaining optical fibres	G02B6/024
Optical fibre coupling, and coupling of light guides which are neither of the integrated circuit kind nor for illumination.	G02B6/24
Devices or arrangements for the control of light by electric, magnetic, electro-magnetic or acoustic means	G02F1/00
Transferring the modulation of modulated light	G02F2/00
Optical logic elements	G02F3/00
Optical analogue/digital converters	G02F7/00
Electric waveguides	H01P

G02B6/12

Insert: New table row in Informative references table

Coupling fibres and integrated optical circuits	G02B6/30

G02B6/26

Delete: Current Definition statement and Special Rules of Classification sections

Insert:

Definition statement

This group covers:

The optical coupling of light into, out of or between light guides.

Further details of subgroups

G02B6/29302

Illustrative example of the subject matter classified in this group:

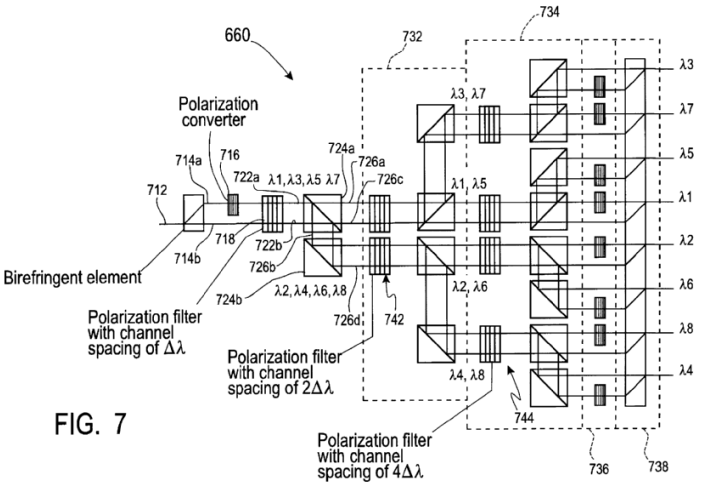


FIG. 7

(Source US6208442).

NOTE US6804057 not for G02B6/29302 as wavelength selection based on etalons not wavelength dependent polarisation effect

G02B6/29304

See additional explanation in the special rules section for more details relating to separation between G02B6/29305 and G02B6/29316 (concerning diffractive elements attached to optical fibres)

G02B6/29305

Free space means not confined, not necessarily that there is no material

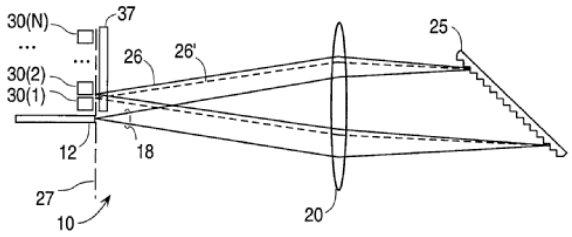


FIG. 1A

Bulk grating 25. (Source WO0137021).

G02B6/29307

Illustrative example of the subject matter classified in this group:

FIG.3A

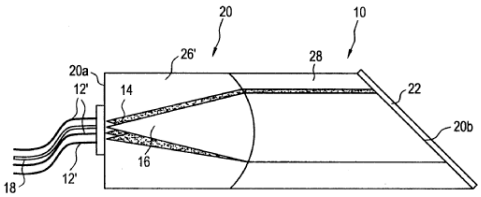
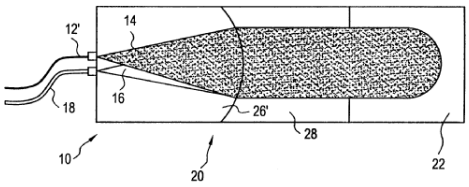


FIG.3B



Transparent block formed of 26', 28 and 22. (Source WO9931532).

G02B6/29308

Illustrative example of the subject matter classified in this group:

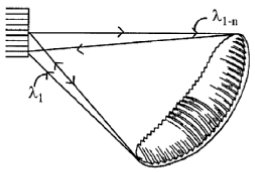
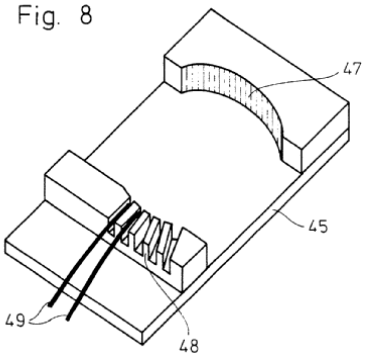


Fig. 11

Fig. 8



Curved bulk grating 47. (Sources US2002181856 for fig. 11, US4784935 for fig.8).

G02B6/2931

Illustrative example of the subject matter classified in this group:

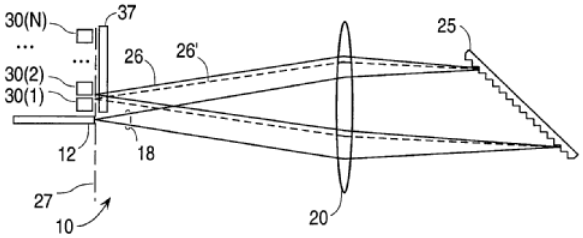
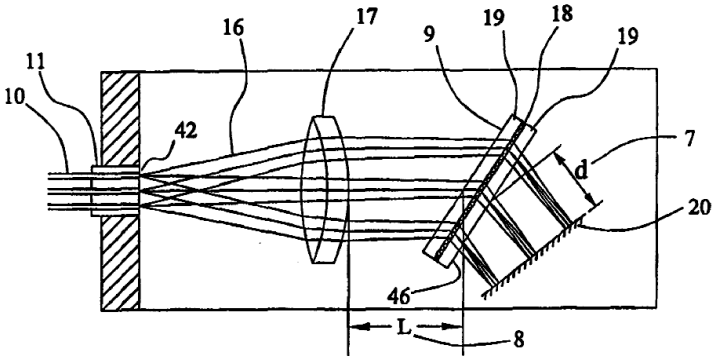


FIG. 1A

(Source WO0137021).

G02B6/29311

Illustrative example of the subject matter classified in this group:

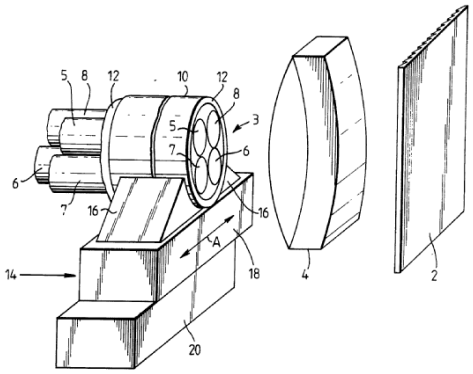


Transmissive grating 9. (Source WO0029888).

G02B6/29313

Illustrative example of the subject matter classified in this group:

Fig.8.



Adjustable support 14 for positioning optical fibres 5 to 8. (Source US5305402).

G02B6/29314

Illustrative example of the subject matter classified in this group:

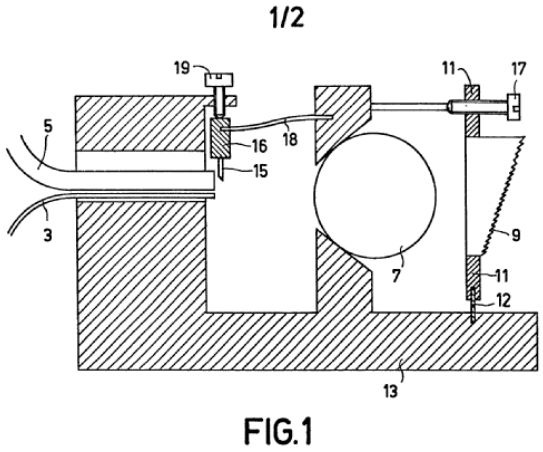


FIG.1

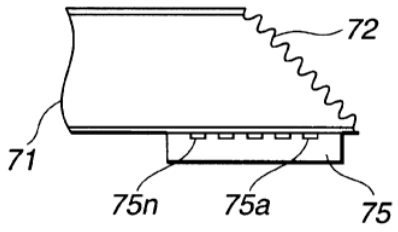
Screw 17 for moving grating 9. (Source US4763969).

G02B6/29316

includes gratings in contact with the light guide causing diffraction in the light guide, e.g. in contact with the side of a polished fibre (i.e. no free space, no intermediate element other than coupling medium, closely linked to diffractive elements integrated in the light guide) i.e. beam interacting with the diffractive element confined in at least one dimension transverse to propagation. EP1574883 fig. 1 has collimator between fibre and diffractive film thus is not for group G02B6/29317 (Indexing Code G02B6/29317 is appropriate). US4148556 fig. 3 is for group G02B6/29322 as grating is butt coupled.

G02B6/29317

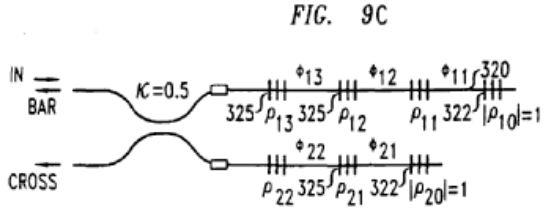
Illustrative example of the subject matter classified in this group:



Optical fibre 71 with grating 72. (Source US6334014).

G02B6/29319

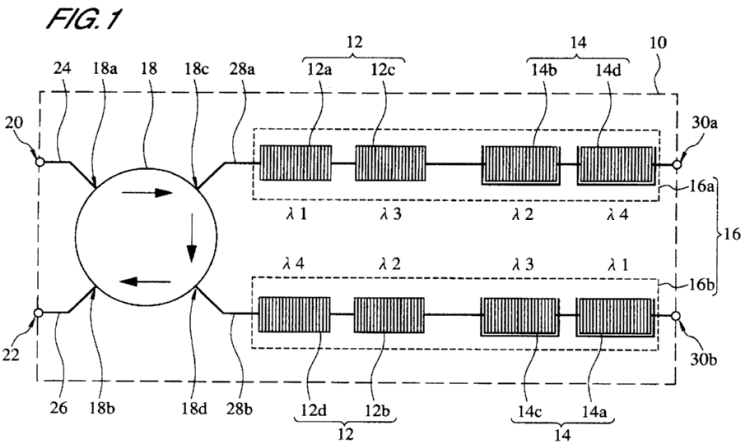
Illustrative example of the subject matter classified in this group:



Cascade of optical fibre gratings 325. (Source EP1024378).

G02B6/2932

Illustrative example of the subject matter classified in this group:



Directional router 18 (circulator) and optical fibre grating cascade 12, 14. (Source EP857988).

G02B6/29322

Illustrative example of the subject matter classified in this group:

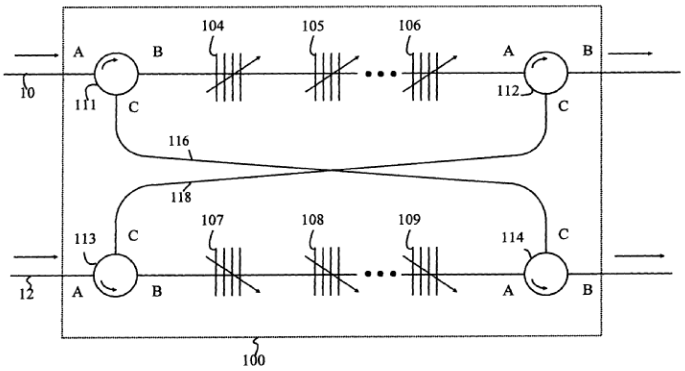
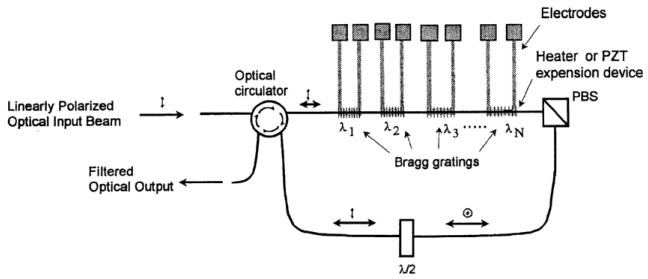


FIGURE 4

Tunable optical fibre gratings 104 to 109. (Source EP95385).

FIG. 3A



Tunable Bragg gratings (indicated by electrodes). (Source US6097861).

G02B6/29323

Illustrative example of the subject matter classified in this group:

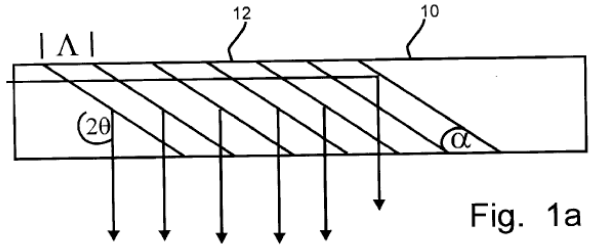


Fig. 1a

Light coupled via grating 12 through bottom (lateral) surface of light guide 10. (Source US6016375).

G02B6/29325

Illustrative example of the subject matter classified in this group:

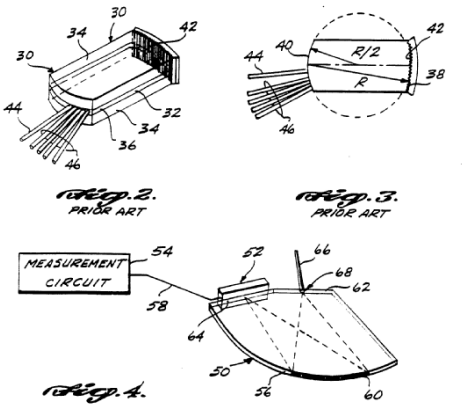


Fig. 2. PRIOR ART

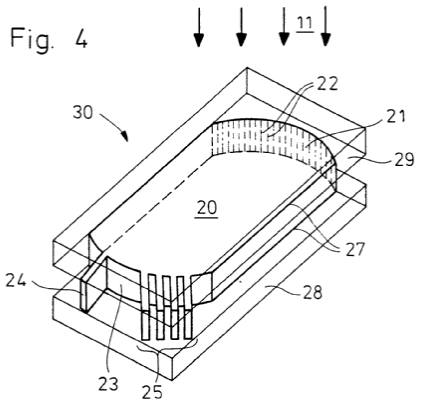
Fig. 3. PRIOR ART

Fig. 4.

Slab light guide 50. (Source WO9211517).

G02B6/29326

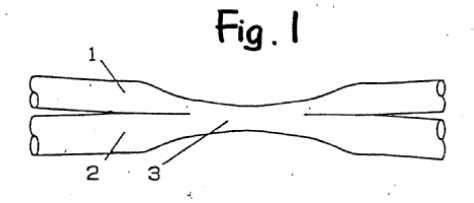
Illustrative example of the subject matter classified in this group:



Curved grating 22 on plate light guide 20. (Source US4784935).

G02B6/29332

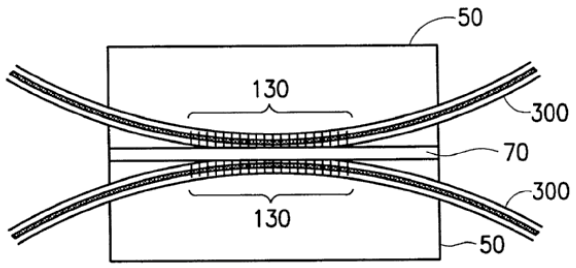
Illustrative example of the subject matter classified in this group:



Evanescent coupling in tapered portion 3. (Source EP416537).

G02B6/29334

Illustrative example of the subject matter classified in this group:



Grating 130 in evanescent coupling region. (Source US20020028040).

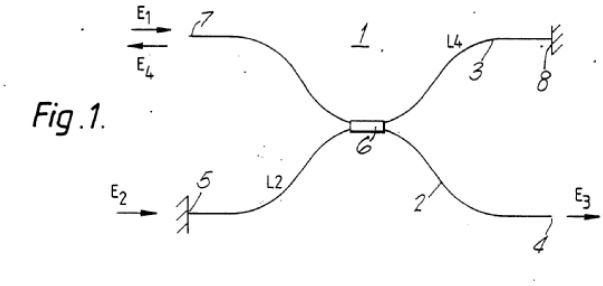
G02B6/29335

Emphasis is on evanescent coupling from a waveguide mode to a resonant mode of a closed loop resonator but see US4720160 fig. 1 where loop resonators are not used. NB in a Sagnac, light only circulates once before interfering thus G02B6/29347

NOTE: see additional explanation in the special rules section below for more details relating to separation between G02B6/29335 and G02B6/29356 or G02B6/29358 (evanescent and non-evanescent coupling of resonators)

G02B6/29337

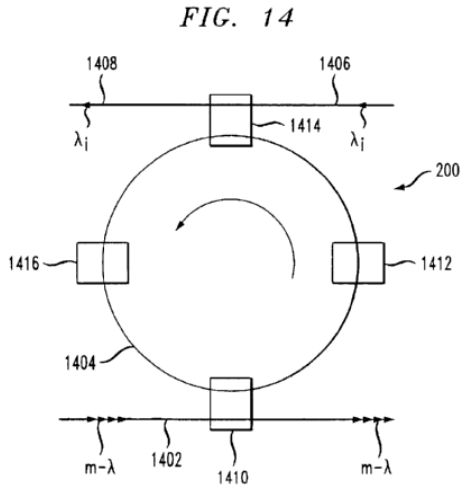
Illustrative example of the subject matter classified in this group:



Linear resonator between 5 and 8 coupled via evanescent coupling at region 6. (Source US4859017).

G02B6/29338

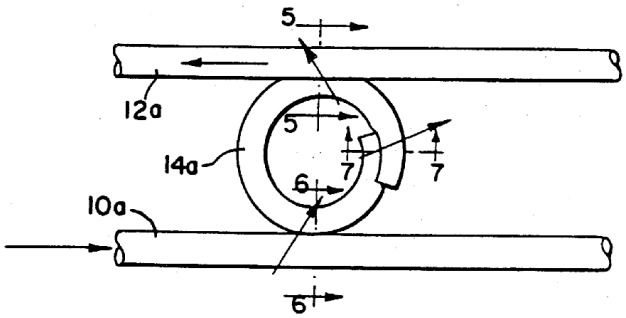
Illustrative example of the subject matter classified in this group:



Ring resonator 1404. (Source US6718086).

G02B6/2934

Illustrative example of the subject matter classified in this group:



Evanescent coupling to a loop cavity 14a. (Source US4720160).

G02B6/29341

Whispering gallery mode (WGM) resonance corresponds to light that is trapped in circular orbits just within the surface of the structure. The modes are most strongly coupled along the equatorial plane and they can be thought to propagate along a zig-zag paths around the sphere.

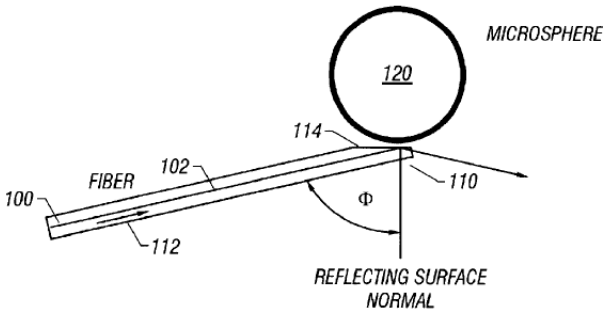


FIG. 1

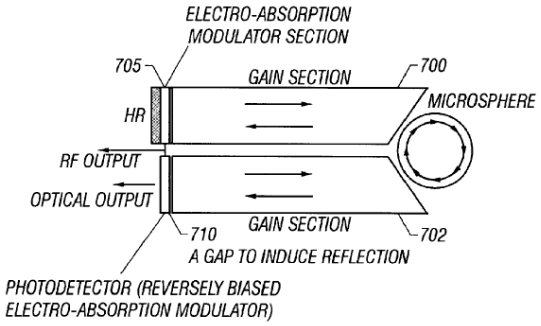


FIG. 7

Microsphere 120 supports WGM resonance. (Source US6389197).

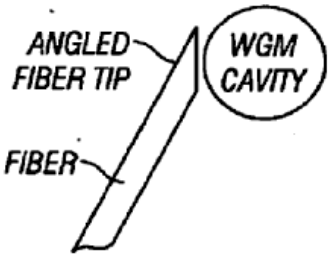


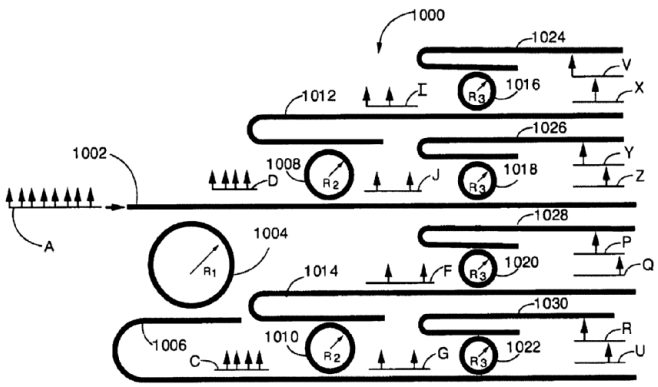
FIG. 5A

(Source US2005128566).

G02B6/29343

Illustrative example of the subject matter classified in this group:

FIG. 4



Cascade of loop resonators 1004, 1008, 1016, 1018,1020, 1022. (Source US6643421).

G02B6/29344

Fig. 1a

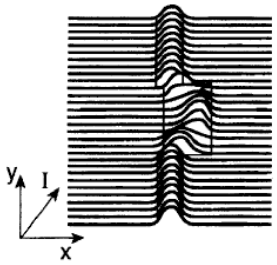


Fig. 1b

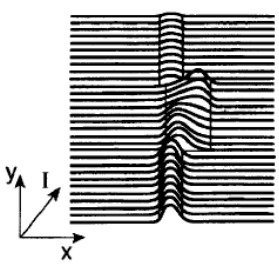
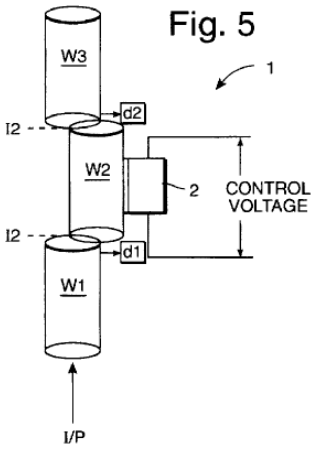


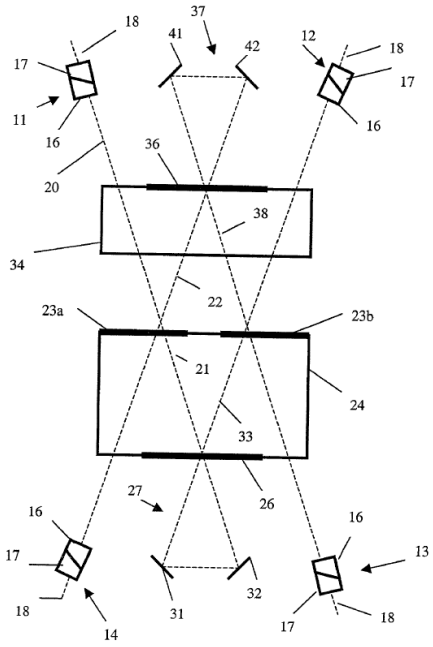
Fig. 5



At wavelength L1 shown in FIG. 1a, the dual-mode section W2 is n beatlengths long and the filter (fig. 5) passes radiation. At wavelength L2 shown in FIG. 1b, the dual-mode W2 section is n-1/2 beatlengths long and so radiation is not coupled from the dual-mode filter to the output single-mode filter (W3). (Source US5796891).

G02B6/29347

Emphasis is on interference between split beams at least one of which travels a loop delay distance



Loops 27 and 37 apply two different delays to beams along optical paths, so that the beams are interfered to form respective output beams corresponding to odd and even communication channels. (Source US2003234935).

G02B6/29349

Illustrative example of the subject matter classified in this group:

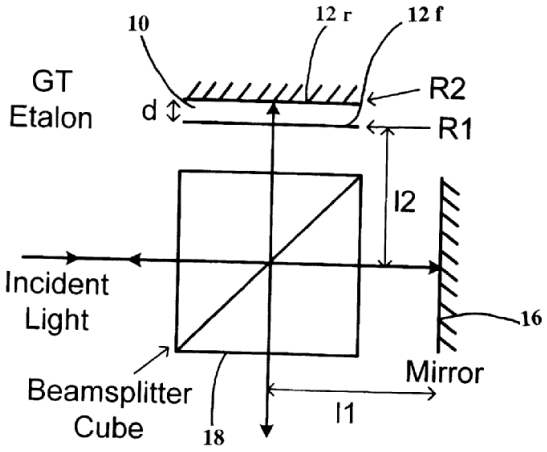


Fig. 1

(Source US6252716).

G02B6/2935

Illustrative example of the subject matter classified in this group:

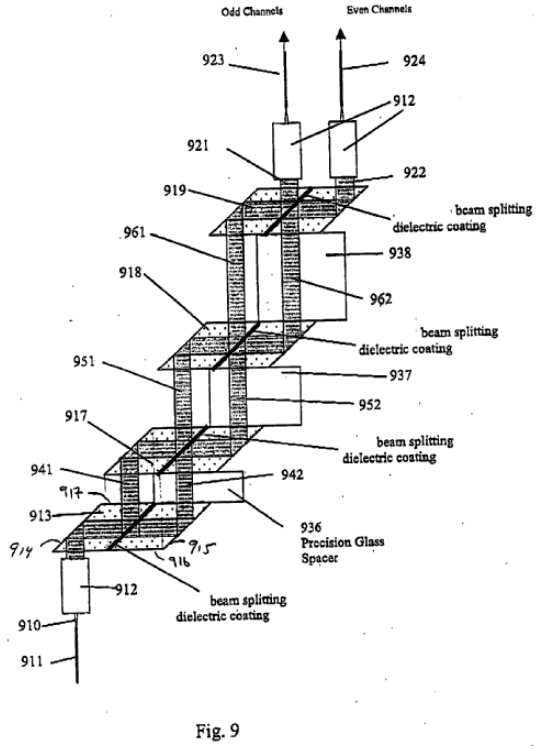
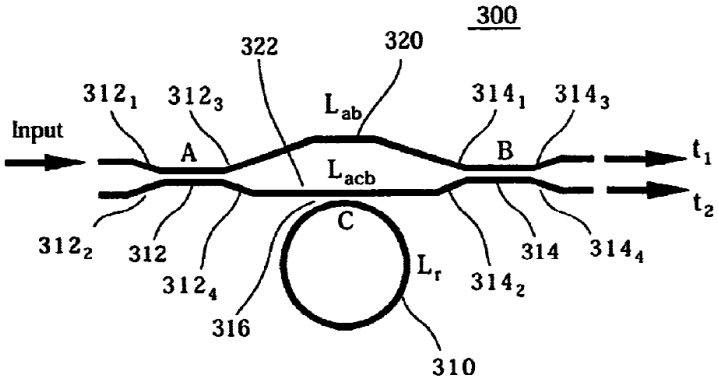


Fig. 9

(Source EP1293814).

G02B6/29353

Illustrative example of the subject matter classified in this group:



Ring resonator 310 coupled to arm 322 of Mach-Zehnder Interferometer. (Source US6834141).

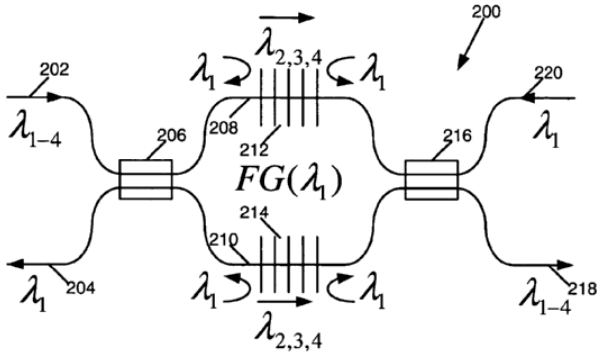


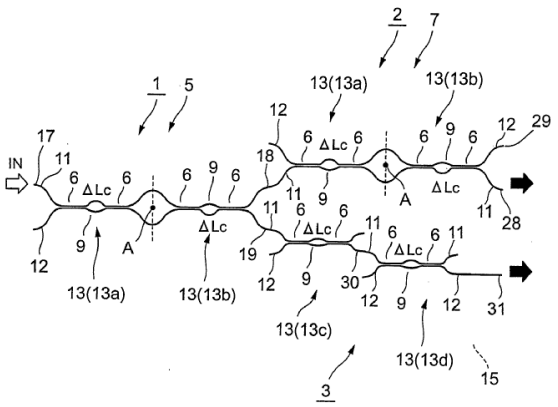
FIG. 4

Gratings 212 & 214 in arms 208 & 201 of Mach-Zehnder Interferometer. (Source US2006002653).

G02B6/29355

Illustrative example of the subject matter classified in this group:

Fig. 1



Cascade of Mach-Zehnder Interferometers 13a-13d. (Source WO2005071453).

G02B6/29356

Illustrative example of the subject matter classified in this group:

FIG. 7A

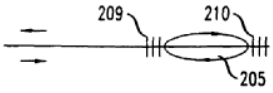
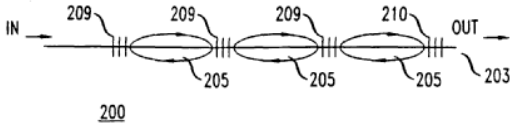


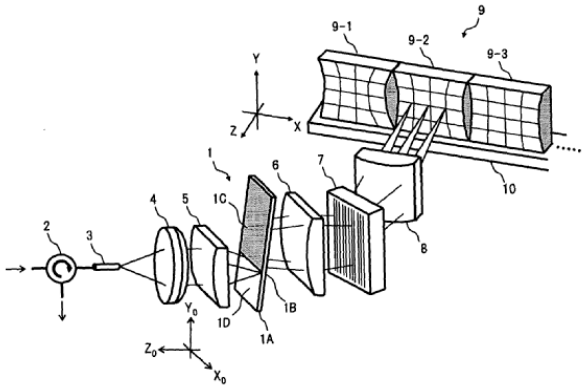
FIG. 7B



End coupling into cavities formed by reflective gratings 209, 210. (Source EP1024378).

NOTE: see additional explanation in the special rules section for more details relating to separation between G02B6/29335 and G02B6/29356 or G02B6/29358 (evanescent and non-evanescent coupling of resonators)

G02B6/29358



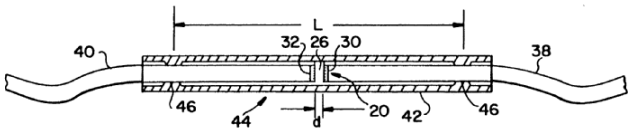
Interferometer 1. (Source EP1703307).

NOTE: see additional explanation in the special rules section for more details relating to separation between G02B6/29335 and G02B6/29356 or G02B6/29358 (evanescent and non-evanescent coupling of resonators)

G02B6/29359

Cavity outside light guide, does not include intermediate elements between fibre end face and filter.

FIG.3

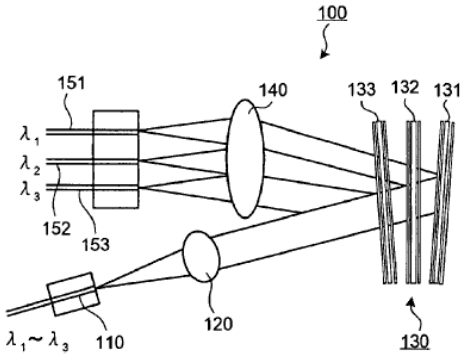


Cavity 26 between mirrors 30 & 32 on ends of light guides 38 & 40. (Source US5202939).

G02B6/29362

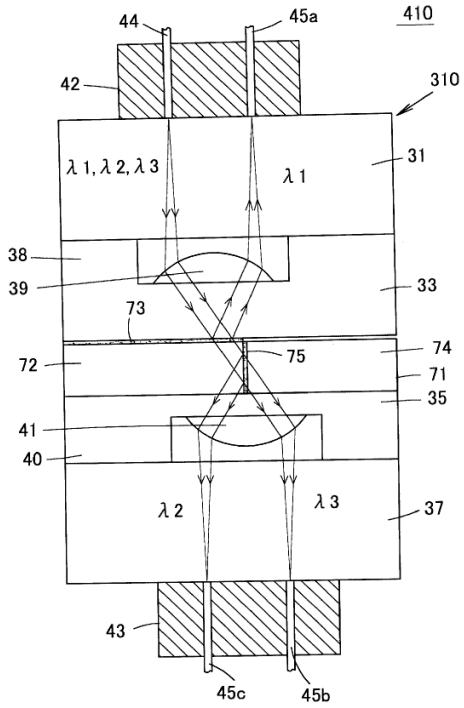
Illustrative example of the subject matter classified in this group:

FIG.1



Cascade of filters 131, 132, 133. (Source US2008112668).

[図28]



Cascade of filters 73 & 75. (Source WO2006080249).

G02B6/29364

Illustrative example of the subject matter classified in this group:

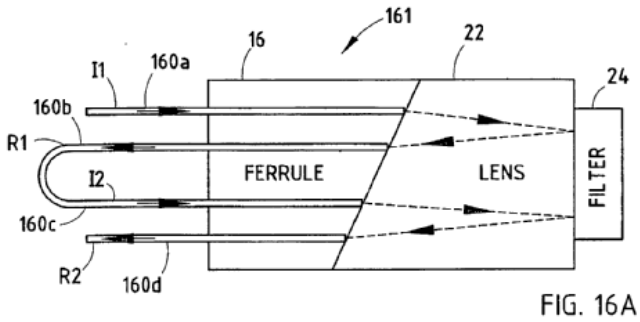


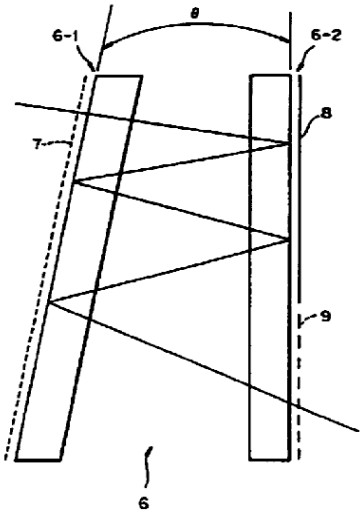
FIG. 16A

Cascade of filtering operations on single filter 24 by light guide 12. (Source WO03021319).

G02B6/29365

Illustrative example of the subject matter classified in this group:

FIG. 2



Zigzag path between filter film 7 and reflector film 8. (Source GB2304204),

G02B6/29367

Illustrative example of the subject matter classified in this group:

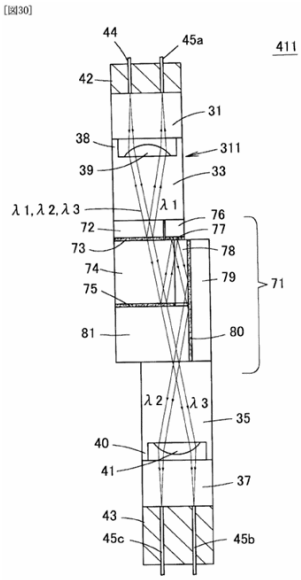
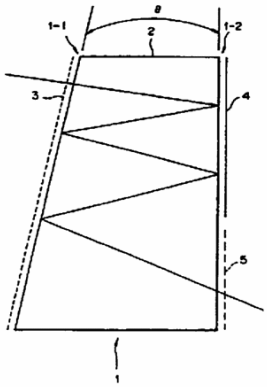


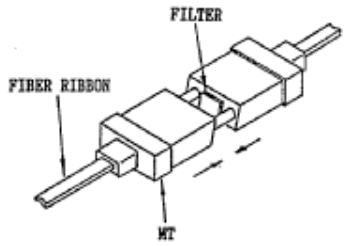
FIG. 1



Zigzag path in solid block formed of components 74,78,81 and single solid block 2 (Sources WO2006080249 for fig. 30, GB2304204 for fig. 1).

G02B6/29368

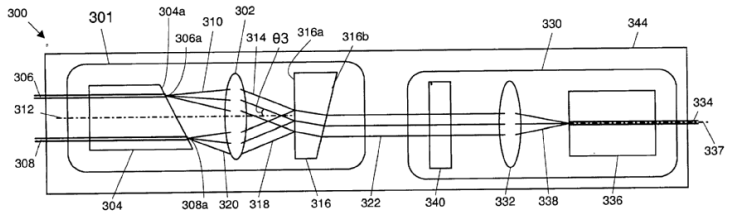
No coupling optics (such as a lens) between fibre and filter



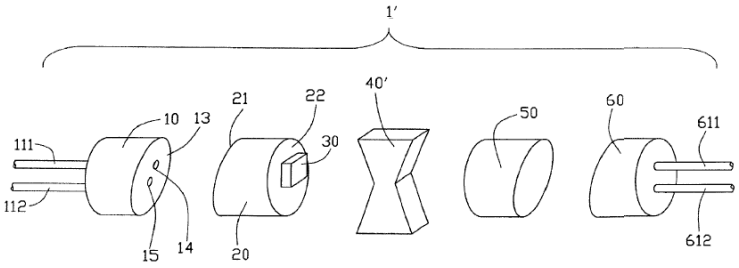
(Source Yokosuka et al. Proc. 40th Electronic components and technology conference, May 20-23, 1990, p. 865, XP144764).

G02B6/2937

Illustrative example of the subject matter classified in this group:



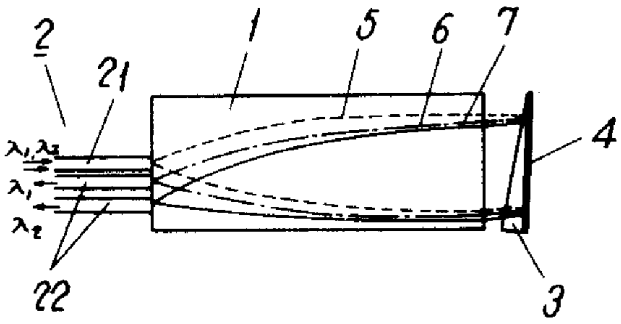
(Source US2004042719)



(Source US2003025967)

G02B6/29373

Illustrative example of the subject matter classified in this group:

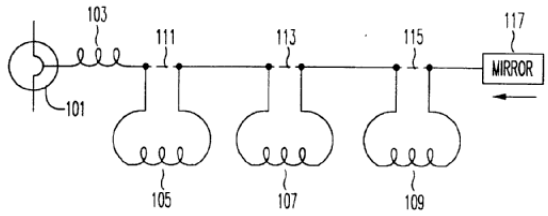


Dispersive prism 3. (Source JP55057804).

G02B6/29376

Illustrative example of the subject matter classified in this group:

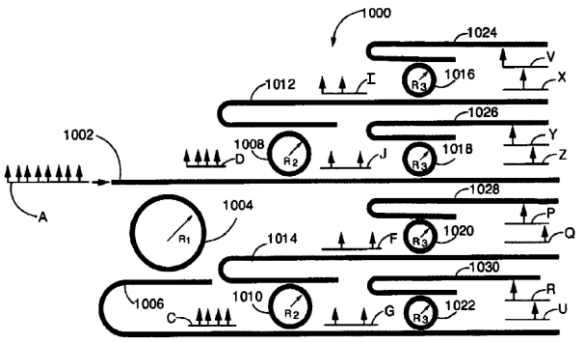
FIG. 5



Light guides 103, 105, 107 and 109 with different dispersion. (Source EP0684709).

G02B6/2938

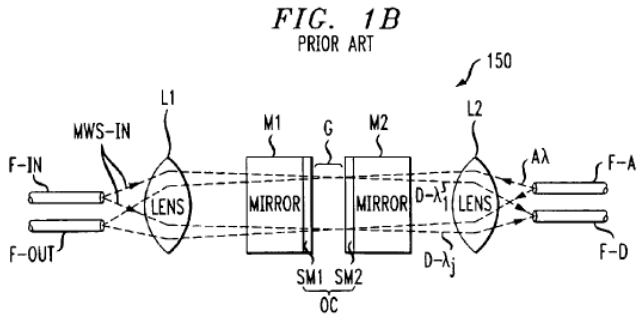
Illustrative example of the subject matter classified in this group:



Input signal A demultiplexed into different wavelength signals. (Source US6643421).

G02B6/29383

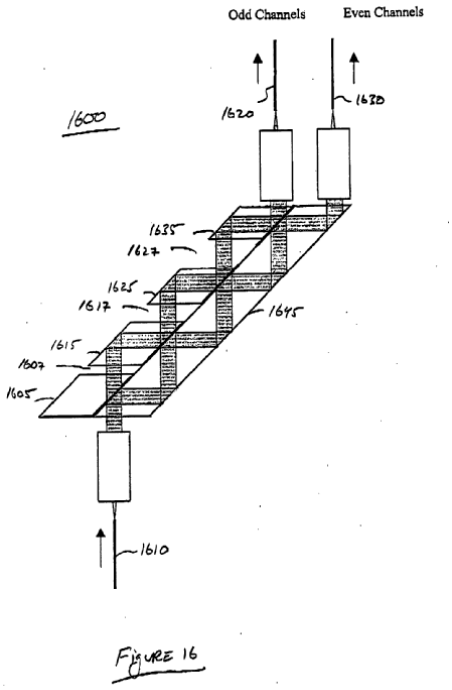
Illustrative example of the subject matter classified in this group:



Signal added at F-A and dropped at F-D. (Source US6718086).

G02B6/29386

Illustrative example of the subject matter classified in this group:



Input signal 1610 de-interleaved into odd and even channels 1620, 1630. (Source EP1293814).

Special rules of classification within this subgroup

G02B6/287 is not used for classification. G02B6/255, G02B6/2835, G02B6/2856 and G02B6/29331 are used instead.

The following arrangement is observed in relation to optical fibre couplers:

Optical fibre couplers of the NxN type (e.g. 2x2)	G02B6/2821
Optical fibre couplers of the 1xN type formed by thermal treatment	G02B6/2856

Prisms or gratings coupled to light guides for purposes other than wavelength selection are classified in G02B6/34.

Systems for wavelength division multiplexing based on optical fibres are classified in H04J14/02. Reference is made to the section "Relationship between large subject-matter areas" under G02B6/00.

Planar waveguides

Couplings between separate planar waveguide substrates, e.g. using intermediate bulk optics, are classified in G02B6/26. Planar waveguide couplings are also classified in G02B6/30-G02B6/305, G02B6/34, G02B6/3596, G02B6/42 and G02B6/43.

G02B6/262-G02B6/29398, G02B6/32-G02B6/327 are restricted to light guides of the optical fibre type.

The coupling of light within planar waveguide substrates is classified in G02B6/12 and subgroups. For example optical fibre couplers are classified in G02B6/2804 whereas planar waveguide couplers are classified in G02B6/125. The one exception is G02B6/3596.

In G02B6/35 and subgroups a single subgroup is assigned (the most relevant) with further aspects classified in the Indexing Code.

Indexing Codes

No groups correspond to Indexing Codes G02B2006/2839 and G02B2006/2865.

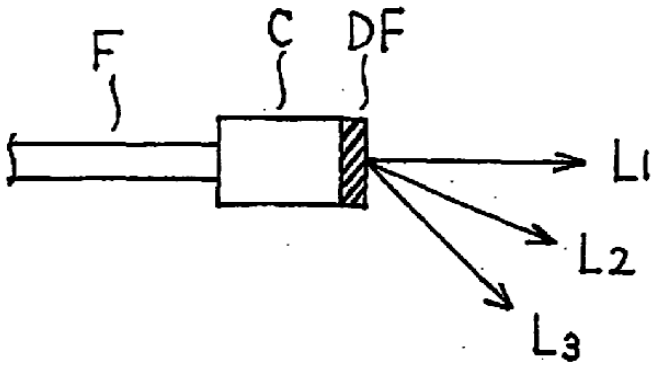
Separation between G02B6/29305 and G02B6/29316

G02B6/29305 is for bulk diffraction elements (gratings) with free space between the light guide and grating. This means that before interacting with the grating the light beams are not guided in the light guide for a certain distance (or vice-versa).

G02B6/29316 is for light guides comprising the grating. This means there is no free space between the light guide and the grating and the light beams are guided in the light guide onto the grating (or vice-versa).

Examples.

G02B6/29311



Diffractive film DF is on a collimator C. (Source EP1574883).

G02B6/29322

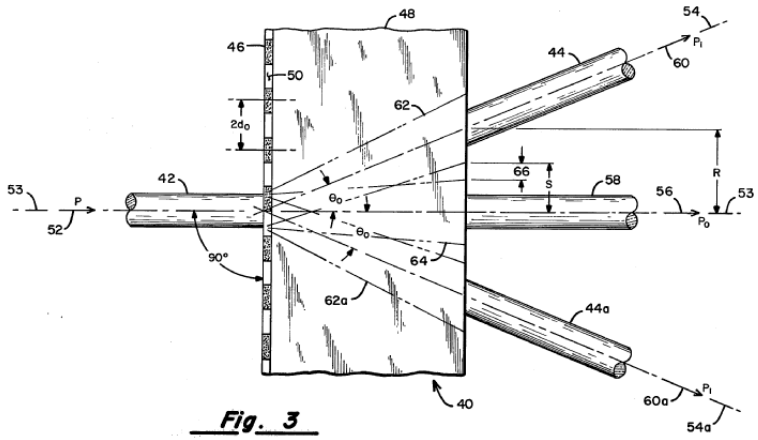


Fig. 3

Butt coupled grating 50, no free space to light guide 42. (Source US4148556).

G02B6/29317

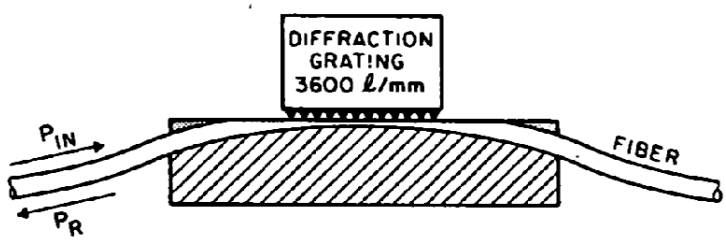


Fig. 1. Cross section schematically showing metallic grating in contact with polished fiber.

No free space between grating and fiber. (Source Sorin et al. in Journal of Lightwave Technology, Vol. LT-3, Oct 1985, p. 1041, XP1652325).

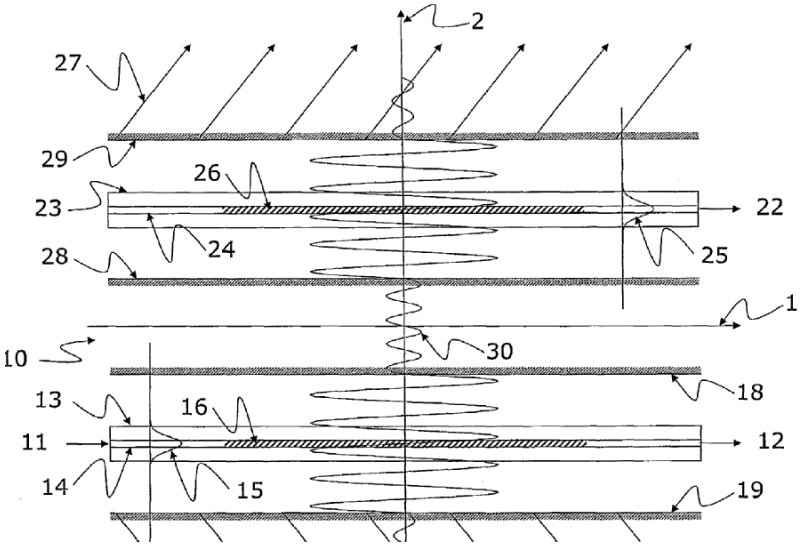
Separation between G02B6/29346 and G02B6/29335

Parallel plate resonators can be in either G02B6/29358 or G02B6/29335 - the correct group depends on how the resonator is coupled to the light guide.

Where light is coupled into the resonator from the light guide by evanescence G02B6/29335 is appropriate (i.e. the evanescent field of the light guided in the light guide overlaps with the resonant mode of the resonator). This is usually the case with lateral coupling, but not always.

Examples

G02B6/29358



Parallel plate resonators formed by resonator members 18, 19, 28 and 29 external to light guides 13, 23 and light coupled between resonators and light guides by deflector means 16 and 26. (Source US20070104421).

G02B6/29337

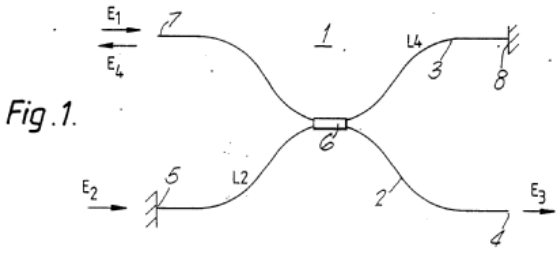
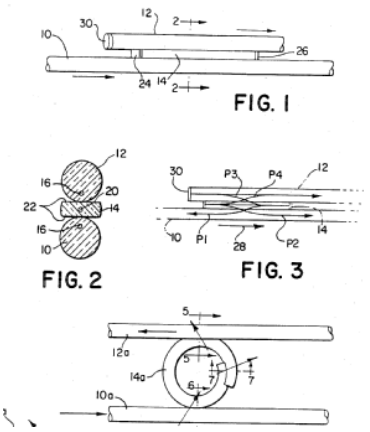


Fig.1.

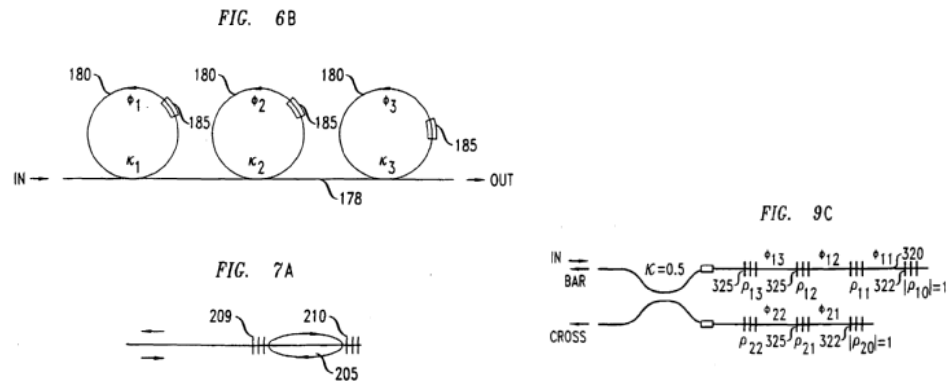
Linear resonator between 5 and 8 coupled via evanescent coupling at region 6. (Source US4859017).

Devices of the type shown in fig. 1-3 below with evanescent coupling to a linear cavity between mirrors 24 & 26 are classified in G02B6/29337, of the type shown in fig. 4 below with evanescent coupling to a loop cavity 14a are classified in G02B6/2934



(Source US4720160).

Devices of the type shown in fig. 6B with evanescent coupling to a cascade of loop resonators 180 are classified in G02B6/29343. Devices of the type shown in fig. 7A & 9C below with end coupling into cavities formed by reflective gratings (i.e. without evanescent coupling into a resonator cavity) are classified in G02B6/29356.



(Source EP1024378).

G02B6/36

Delete: Definition statement and References relevant section

Insert:

Definition statement

This group covers:

The mechanical coupling of optical fibres, e.g. mechanical means for holding optical fibres on a substrate, and mechanical means such as connectors for the interconnection of

optical fibres.

Further details of subgroups

G02B6/3608

Illustrative example of the subject matter classified in this group:

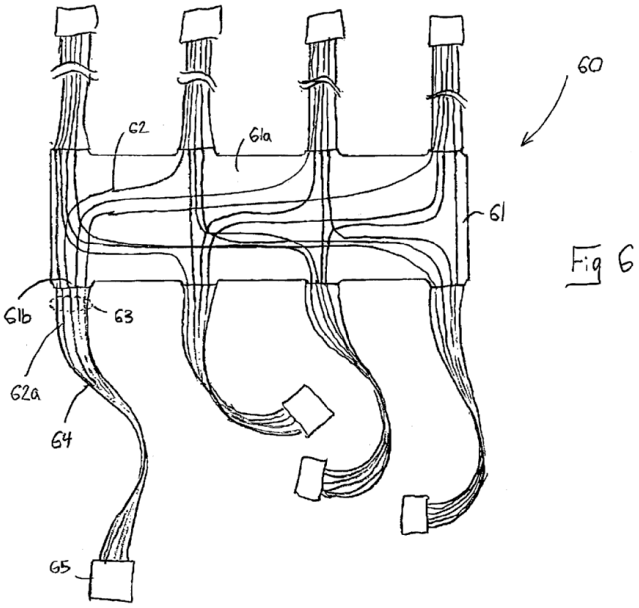
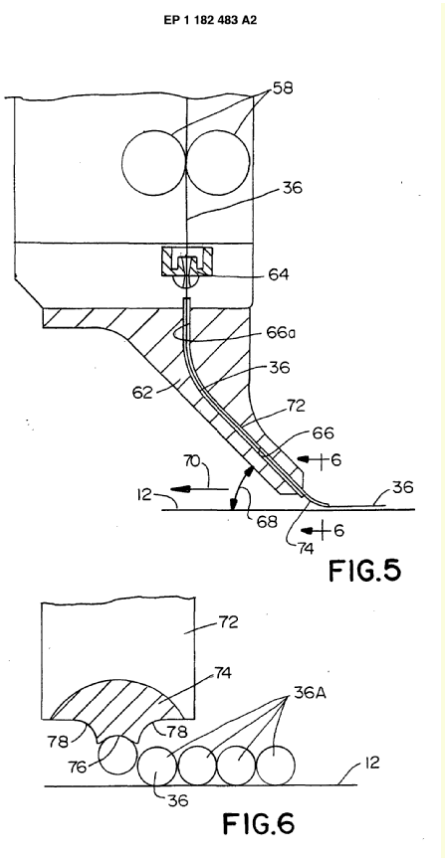


Fig 6

(Source US2003/0179980).

G02B6/3612

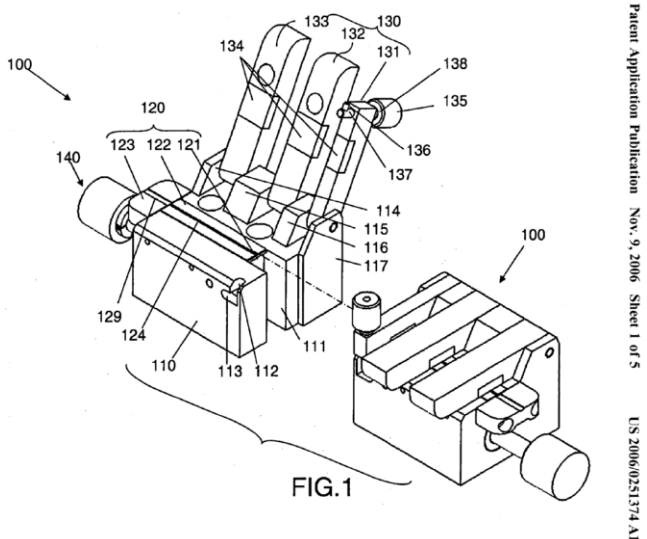
Illustrative example of the subject matter classified in this group:



(Source EP 1 182 483).

G02B6/3616

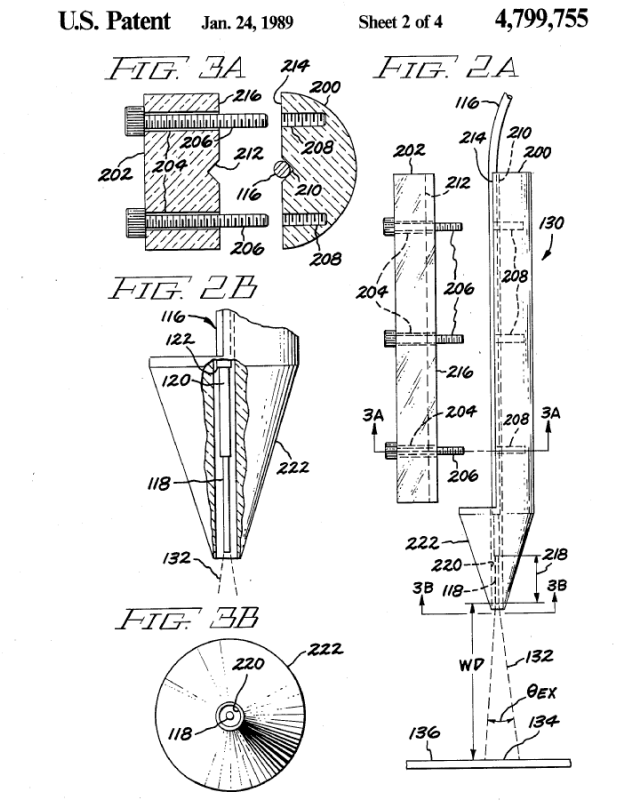
Illustrative example of the subject matter classified in this group:



(Source US2006/0251374).

G02B6/3624

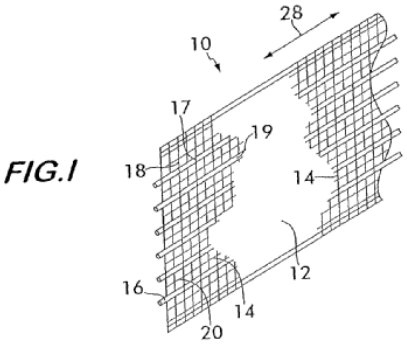
Illustrative example of the subject matter classified in this group:



(Source US 4,799,755).

G02B6/3628

Illustrative example of the subject matter classified in this group:

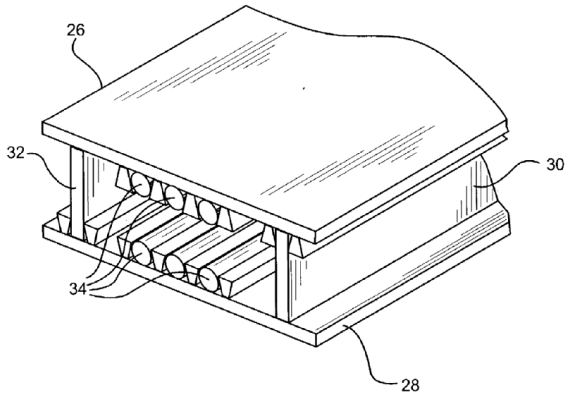


Optical fibre (16). (Source WO03/021312).

G02B6/364

Illustrative example of the subject matter classified in this group:

FIG. 2

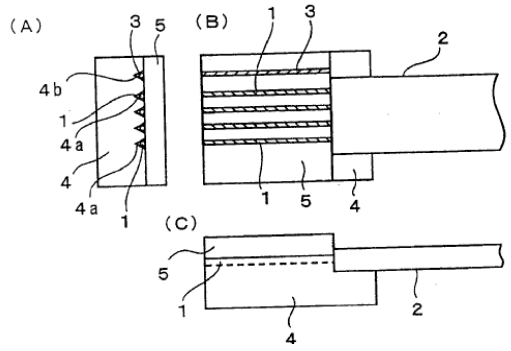


(Source US 2004/0086255).

G02B6/3652

Illustrative example of the subject matter classified in this group:

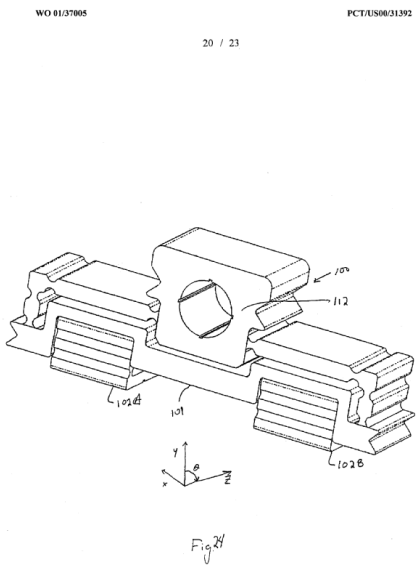
FIG. 1



(Source US2001/0042756).

G02B6/3656

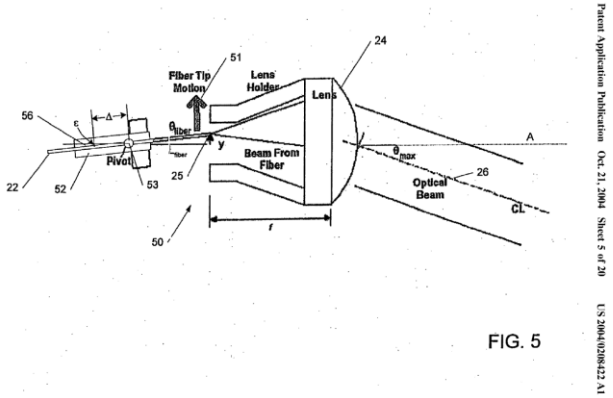
Illustrative example of the subject matter classified in this group:



(Source WO01/37005).

G02B6/366

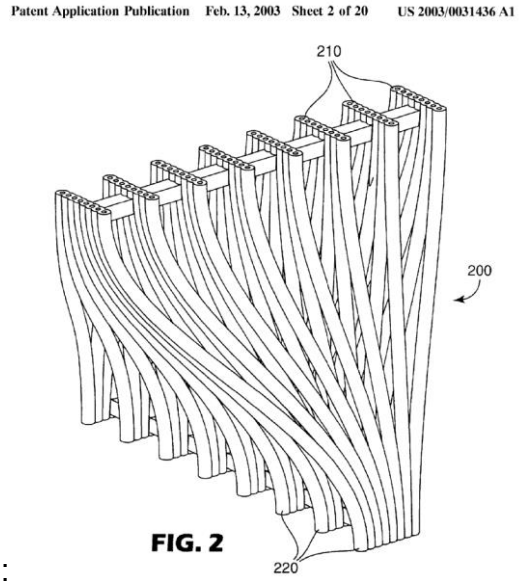
Illustrative example of the subject matter classified in this group:



(Source US2004/0208422).

G02B6/3668

Illustrative example of the subject matter classified in this

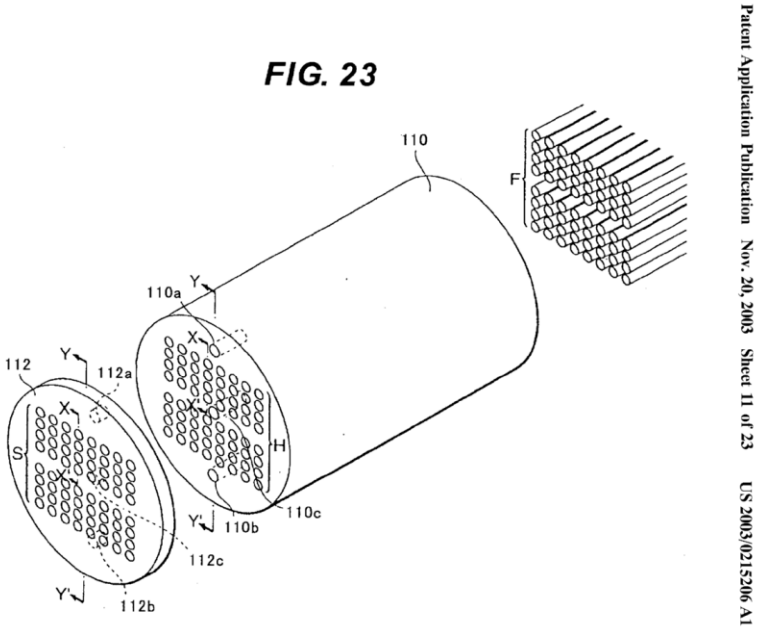


group:

(Source US2003/0031436). (also classified in G02B6/3676).

G02B6/3672

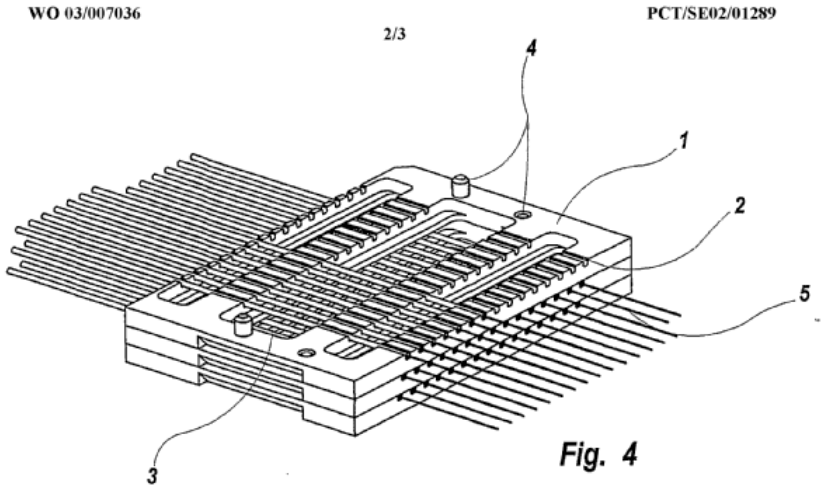
Illustrative example of the subject matter classified in this group:



(Source US2003/0215206).

G02B6/3676

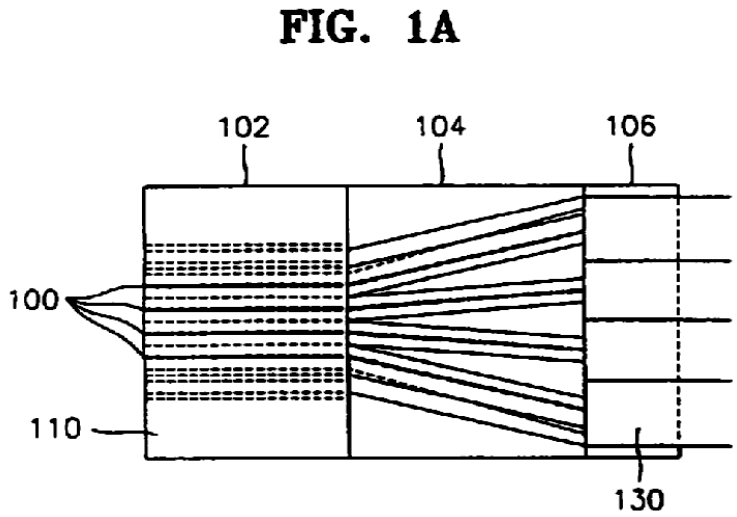
Illustrative example of the subject matter classified in this group:



(Source WO03/007036).

G02B6/368

Illustrative example of the subject matter classified in this group:



(Source GB2331161).

References relevant to classification in this subgroup

This group does not cover:

Light guides formed by bundle of fibres, the relative position of the fibres being the same at both ends, e.g. for transporting images	G02B6/06
Splicing of light guides by fusion or bonding	G02B6/255
Optical coupling means for use between fibre and thin-film device	G02B6/30
Optical coupling means having switching means	G02B6/35
Optical coupling means having fibre to fibre mating means	G02B6/38

Coupling light guides with optoelectronic elements	G02B6/42

G02B6/3801

Insert:

References relevant to classification in this group

This group does not cover:

Splices by bonding optical fibres together	G02B6/255
Fusion splices	G02B6/2551

G02B6/3809

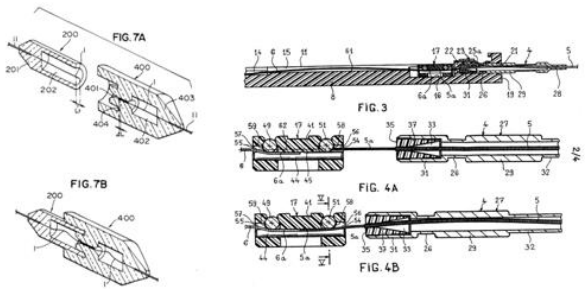
Insert:

Definition statement

This group covers:

Demountable optical fibre connectors presenting a protruding free optical fibre end

Illustrative example of subject-matter classified in this group:



(Sources: US5,694,506, FR2818839)

G02B6/381

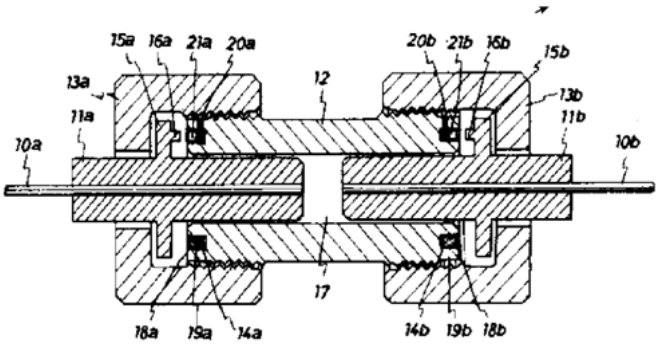
Insert:

Definition statement

This group covers:

Demountable optical fibre connectors having ferrules.

Illustrative example of subject-matter classified in this group:



Ferrules 11a, 11b. (Source: JPS5674211)

G02B6/3833

Insert:

Definition statement

This group covers:

Details of the ferrule, mounting of prepared optical fibre in the ferrule.

G02B6/3869

Insert:

Definition statement

This group covers:

Mounting of the assembled fibre and ferrule into the connector body and details of the connector body.

G02B6/42

Delete: The sentence in the Special rules of classification section under Indexing Codes

Insert: The following new sentence in the Special rules of classification section under Indexing Codes

Indexing Codes

G02B6/4292 has the additional Indexing Code G02B2006/4297 for protection means, e.g. using shutters to avoid inadvertent exposure

G02B7/00

Insert:

Definition statement

This group covers:

Mountings, adjusting means, including means for effecting focusing and zooming, and light-tight connections for optical elements like lenses, prisms or mirrors or the like.

Special rules of classification within this group

The following simplified arrangements are to be observed in relation to mechanical aspects of focusing and zooming (G02B7/04):

- Non-zoom systems: Manual focusing: G02B7/04
- Non-zoom systems: Automatic (motorized) focusing: G02B7/08
- Zoom systems: Manual focusing and zooming: G02B7/10
- Zoom systems: Automatic (motorized) focusing and zooming: G02B7/102
- G02B7/10 and G02B7/102 relate to the mechanical aspects of zoom lenses (e.g. cam arrangements). The optical aspects of the design of zoom lenses are covered by G02B15/00.

The following IPC subclasses are not used for classification: G02B7/185 - G02B7/198 (subject-matter covered by G02B7/182 and other subgroups of G02B7/182).

G02B13/06

Insert:

Definition statement

This group covers:

Objectives designed to cover a very wide field of view not achievable by standard lens systems.

For example:

- Very wide objectives, e.g. fisheye lenses, were the increase in coverage is done at the expense of distortion correction
- Reflecting optical systems
- Multiple lens systems providing an extended field coverage

Informative references

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

optical systems for splitting a field on multiple detectors	G02B27/1066

Special rules of classification within this group

G02B13/06 is also used to classify catadioptric optical systems providing a 360°overage

Rectilinear,e.g. non-distorting, wide angle objective are classified in G02B13/04

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Sky lens	Objective designed for full sky coverage, e.g. for an hemispheric field of view

G02B15/00

Insert:

References relevant to classification in this group

This group does not cover:

The mechanical aspects of zoom lenses (e.g. cam arrangements) are covered by	G02B7/10
Simple miniaturized zoom lenses for mobile electronic devices	G02B13/009
Anamorphic objectives with variable magnifications	G02B13/12

Synonyms and keywords

In patent documents the following abbreviations are often used:

Lens group	A set of one or more lenses that stay fixed or move together.

G02B17/00

Delete: References relevant section

Insert:

References relevant to classification in this group

This group does not cover:

Panoramic objectives	G02B13/06
Reflective microscope objectives	G02B21/04
Telescopes, periscopes	G02B23/00
Scanning optics with mirrors	G02B26/126
Beamsplitters or combiners	G02B27/10
Devices for optical projection	G02B27/18
Optical derotarors, e.g. rotating dove prisms	G02B27/642

G02B17/026

Delete: References relevant section

Insert:

References relevant to classification in this group

This group does not cover:

Prismatic systems with reflecting surfaces having static image erecting or reversing properties only	G02B17/045
Movable reflecting elements for controlling the direction of light	G02B26/08
optical derotators, e.g. rotating dove prisms	G02B27/642

G02B17/045

Insert:

References relevant to classification in this group

This group does not cover:

Movable or deformable reflecting elements for controlling the direction of light	G02B26/08
Optical derotators	G02B27/642

G02B17/06

Insert:

References relevant to classification in this group

This group does not cover:

Mirror based non imaging systems	G02B19/00

G02B19/00

Insert:

References relevant to classification in this group

This group does not cover:

Illumination arrangement in microscopes	G02B21/08

Informative references

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

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

Lighting	F21V
Solar heat collectors	F24J2/00
Optical elements combined with semiconductor receivers	H01L31/0232
Optical elements combined with semiconductor emitters	H01L33/58

G02B21/00

Insert:

References relevant to classification in this group

This group does not cover:

Ophthalmic microscopes	A61B3/13
Measuring microscopes	G01B9/04
Microtomes	G01N1/06
Scanning probe microscopes (SPM), e.g. scanning tunnelling microscopes (STM), atomic force microscopes (AFM), scanning near-field optical microscopes (SNOM), magnetic force microscopes (MFM)	G01Q
Eyepieces	G02B25/00
Polarising systems	G02B27/28
Electron microscopes	H01J37/00

Special rules of classification within this group

Non-confocal fluorescence microscopes, including visible and infrared ones, are classified in G02B21/16

G02B23/00

Modify: References relevant section as shown below

References relevant to classification in this group

This group does not cover:

Medical diagnostic instruments in general	A61B
Endoscopes specifically for medical applications, e.g. structural aspects for the intended medical procedure	A61B1/00
non-optical details of weapon aiming or sighting devices	F41G
Optical design aspects or layout of objectives	G02B9/00, G02B13/00, G02B15/00, G02B17/00
Optical design aspects or layout of eyepieces	G02B25/00

G02B26/00

Insert:

References relevant to classification in this group

This group does not cover:

Mechanically operable parts of lighting devices	F21V
Measuring characteristic of light, spectroscopy	G01J
Active devices changing the optical properties of the medium	G02F
Control of light sources	H01S3/10, H05B37/00 to H05B43/00

G02B26/001

Insert:

Definition statement

This group covers:

Systems providing spectral filtering by an adjustable, e.g. variable spacing, optical cavity.

Relationship between large subject matter areas

Adjustable Fabry-Perot devices in spectroscopy applications, e.g. as monochromators or for spectral analysis are classified in G01J3/26. A further classification in G02B26/001 is optional.

References relevant to classification in this group

This group does not cover:

Devices or arrangements using multiple reflections in spectrometry or monochromators	G01J3/26
Non adjustable interference filters	G02B5/28

G02B26/026

Insert:

References relevant to classification in this group

This group does not cover:

Displays based on electrophoresis	G02F1/167
Displays based on orientable dipolar particles	G02F1/172

G02B26/0833

Insert:

Definition statement

This group covers:

G02B26/0833 is directed to optical MEMS per se with a high emphasis on the optical properties of the devices and their interaction with other optical elements in the apparatus.

References relevant to classification in this group

This group does not cover:

Deformable or flexible reflecting membrane devices	G02B26/0825

Informative references

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

Micromechanical devices in general	B81B

Synonyms and keywords

In patent documents the following expressions/words are often used as abbreviations:

DLP	Digital Light Processing
DMD	Digital Micromirror System
MEMS	Micro Electro Mechanical System
MOEMS	Micro Optical Electro Mechanical System

G02B27/00

Insert: References relevant section

References relevant to classification in this group

This group does not cover:

Showcases	A47F
Optical toys	A63H33/22
designs or pictures characterized by special light effects	B44F1/00

Insert: After the first paragraph in the Special rules section the following

The following IPC subclass is not used for classification G02B27/18, see the relevant subclasses according to the projector type. The subclass G02B27/20 is however used for laser pointers or the like.

2. A. DEFINITIONS (i.e. new or modified)

G02F1/0009

Insert: Under References relevant .section, after the last table row

Radiation pyrometry	G01J5/00
Thermometer using change of colour or translucency	G01K11/12

G02F1/01

Insert: Under "References relevant" section, after the last row ("Electroluminescent Display") the following four rows

Passive optical element (colour filter, polariser)	G02B
Backlight comprising a light guide	G02B6/00
Integrated optical element	G02B6/00
Arrangements in which the information is build-up by the combination of elements	G09F9/35

Insert:

Special rules of classification within this group

Common features of devices or arrangements for the control of intensity, phase, polarization or colour classified in G02F1/167 (based on electrophoresis) are also classified in the G02F1/13 and subgroups

G02F1/0147

Insert:

References relevant to classification in this group

This group does not cover:

Thermal activation of liquid crystals exhibiting a thermo-optic effect	G02F1/132
Tenebrescent materials	C09K9/00

Insert: Under Informative references section, after the last table row

Radiation pyrometry	G01J5/00

G02F1/015

Insert:

References relevant to classification in this group

This group does not cover:

Based on ceramics or electro-optical crystals, e.g. exhibiting Pockels effect or Kerr effect	G02F1/03

G02F1/025

Insert:

References relevant to classification in this group

This group does not cover:

Structure with periodic or quasi periodic potential variation, e.g. superlattices, quantum wells	G02F1/017
Optical waveguides made of semiconductor material	G02F1/2257

G02F1/03

Insert:

References relevant to classification in this group

This group does not cover:

Based on electro-optical organic material	G02F1/061

G02F1/0338

Insert:

References relevant to classification in this group

This group does not cover:

With ferro-electric properties	G02F1/05

G02F1/05

Insert:

References relevant to classification in this group

This group does not cover:

Ceramics or electro-optical crystals, e.g. exhibiting Pockels effect or Kerr effect in an optical waveguide structure	G02F1/035
The active material being a ceramic	G02F1/055
Domain inversion in ferro-electric materials	G02F1/3558

G02F1/055

Insert:

References relevant to classification in this group

This group does not cover:

In an optical waveguide structure	G02F1/035

G02F1/11

Insert:

References relevant to classification in this group

This group does not cover:

Elasto-optic effect without wave propagation	G02F1/0131
Acousto-optical deflection	G02F1/33

G02F1/13

Insert:

References relevant to classification in this group

This group does not cover:

Liquid crystal materials	C09K19/00

G02F1/1313

Insert:

Special rules of classification within this group

Not used anymore for classifying new documents.

G02F1/1335

Insert:

Definition statement

This group covers:

Integration of optical elements with the LCD panel.

Relationship between large subject matter areas

When the invention concerns the optical elements (for example polarizers) themselves and the incorporation in an LCD is trivial then they should only be classified the in G02B.

Side illuminated LCD backlights employing a waveguide should be classified in G02B6/00.

If the invention is to be used in the field of lighting (for example luminaire, with waveguide and LEDs) then F21V should also be considered

G02F1/133602

Insert:

Definition statement

This group covers:

Pattern of LEDs in an array in a direct type (i.e. without waveguide) LCD back light device.

G02F1/133615

Insert:

Definition statement

This group covers:

Backlight light employing side illumination without a waveguide.

Relationship between large subject matter areas

Where the invention concerns the waveguide (or plurality of waveguides) shape or integrationinto the support structure on the LCD device then it should be classified in the G02B6/001 and subgroups.

If the integration of the waveguide type side illuminated backlight involves adaptation of the general LCD panel support structure then G02F1/133308 and its subgroups should be considered

References relevant to classification in this group

This group does not cover:

Light guides specially adapted for lighting devices or systems	G02B6/0001

G02F1/13452

Insert:

References relevant to classification in this group

This group does not cover:

Constructional arrangements; operation of liquid crystal cells; circuit arrangements	G02F1/133
Processes or apparatus adapted for the manufacture or treatment of semiconductor or solid state devices or parts thereof	H01L21/00

G02F1/15

Insert:

References relevant to classification in this group

This group does not cover:

Electrochromic materials	C09K9/00

Special rules of classification within this group

Common devices features are also classified in G02F1/13 and subgroups

G02F1/17

Insert:

References relevant to classification in this group

This group does not cover:

Organic tenebrescent materials	C09K9/00
Based on semiconductor elements with at least one potential jump barrier e.g. PN, PIN junction	G02F1/015
Based on ceramics or electro-optical crystals e.g. exhibiting Pockets effect or Kerr effect	G02F1/03
Based on electro-optical organic material	G02F1/061

Based on electro-optical liquids exhibiting Kerr effect	G02F1/07
Based on magneto-optical elements, e.g. exhibiting Faraday effect	G02F1/09
Based on acousto-optical elements e.g. using variable diffraction by sound or like mechanical waves	G02F1/11
Based on liquid crystals, e.g. single liquid crystal display cells	G02F1/13
Based on electrochromic elements	G02F1/15
Based on electrophoresis	G02F1/167

G02F1/19

Insert:

References relevant to classification in this group

This group does not cover:

For the control of the intensity, phase, polarization or colour...	G02F1/01
Constructional details	G02F1/0102
in optical waveguides	G02F1/011
Operation of the device; Circuit arrangement not otherwise provided for	G02F1/0121
by another light beam, i.e. opto-optical modulation	G02F1/0126
based on electro-mechanical, magneto-mechanical, elasto-optic effects	G02F1/0128
for the control of polarisation, e.g. state of polarisation (SOP) control, polarisation	G02F1/0136
based on thermo-optic effects	G02F1/0147
based on semiconductor elements with at least one potential jump barrier, e.g. PN, PIN junction	G02F1/015
based on ceramics or electro-optical crystals, e.g. exhibiting Pockels effect or Kerr effect	G02F1/03
based on electro-optical organic material	G02F1/061
based on electro-optical liquids exhibiting Kerr effect	G02F1/07
based on magneto-optical elements, e.g. exhibiting Faraday effect	G02F1/09
based on acousto-optical elements, e.g. using variable diffraction by sound or like mechanical waves	G02F1/11
based on liquid crystals, e.g. single liquid crystal display cells	G02F1/13
based on electrochromic elements	G02F1/15
based on electrophoresis	G02F1/167

G02F1/23

Insert:

References relevant to classification in this group

This group does not cover:

Based on ceramic or electro-optical crystals, e.g. exhibiting Pockels effect or Kerr effect	G02F1/03 to G02F1/21

G02F1/29

Delete: Current References relevant table

Insert:

References relevant to classification in this group

This group does not cover:

Working and shaping a Laser beam	B23K26/06
Optical coupling means	G02B6/26
Scanning systems	G02B26/10
Static stores	G11C
Lasers provided with means to change the location from which, or the direction in which, laser radiation is emitted	H01S3/101
Scanning arrangement	H04N1/04
Optical switching system	H04Q3/52

G02F1/35

Delete: Current References relevant table

Insert:

References relevant to classification in this group

This group does not cover:

Optical bistable devices	G02F3/02
Brillouin, Raman laser	H01S3/30

Photoconductive Terahertz emitter (antenna) (Auston switch)	H01L31/00, H01Q9/00
Analysing materials by the use of optical means and of the non-linear properties of the material	G01N21/636

G02F2/00

Insert: In References relevant section, the following table rows at the beginning of the table:

Non linear optics	G02F1/35
Photoelectric discharge tubes not involving teh ionisation of a gas	H01J40/00
Semiconductor devices sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation and adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; details thereof	H01L31/00
Controlling the intensity, frequency, phase, polarisation or direction or the emitted radiation (of lasers) e.g. switching, gating, modulating or demodulating	H01S3/10

G02F2/02

Insert:

References relevant to classification in this group

This group does not cover:

Luminescent, e.g. electroluminescent, chemiluminescent materials	C09K11/00

G02F3/00

Delete: Current “References relevant” section

Insert:

References relevant to classification in this group

This group does not cover:

Optical computing	G06E
Electric-pulse generators using opto-electronic devices as active elements	H03K3/42
Logic circuits using opto-electronic devices	H03K19/14

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
G02F	Relationship between large subject matter areas	G09F9/35 covers display having a particular shape and or used for a particular application, mainly for the purpose of advertising (see for example US 2010177018, EP2116985). G09F9/37 covers displays using movable (rotatable) elements (see for example EP0721176, US2006176438 or US2010110531).	G09F9/35 covers display having a particular shape and or used for a particular application, mainly for the purpose of advertising. G09F9/37 covers displays using movable (rotatable) elements.
G02F1/0009	Definition statement	New materials or compositions used in light modulation devices, see US2011008008, US2013003066, US2011181950, US2008024854.	New materials or compositions used in light modulation devices as far as the physical properties are concerned.
G02F1/01	References relevant	(first row) F21	F21H to F21V
G02F1/01	References relevant	Symbol corresponding to "Optical RF spectrum analyser": G01R22/17	G01R23/17
G02F1/01	References relevant	Symbol corresponding to "Thin film Transistor TFT" H01L21/00- H01L21/27- H01L21/29	H01L21/00 , H01L27/00
G02F1/01	References relevant	Places in relation to which this group is residual: Arrangements in which the information is build-up by the combination of elements — G09F9/35	delete
G02F1/01	Informative references	H01L2021/775	H01L27/12
G02F1/01	Synonyms and keywords	*In patent documents the following abbreviations are often used:*	*In patent documents the following expressions/words are often used as abbreviations:*

G02F1/0128	Definition statement	Devices where a (electro, magnetic, pressure) field produce a deformation of the structure of the material which result in change in refractive index, absorption etc, e.g. elasto-optic effect (mechanically, stress induced birefringence), see WO2012065244, US2004012840, US2004135745	Devices where a (electro, magnetic, pressure) field produce a deformation of the structure of the material which result in change in refractive index, absorption etc, e.g. elasto-optic effect (mechanically, stress induced birefringence).
G02F1/015	Definition statement	Electro optic effect in semi conductor, mainly GaAs InP devices.	Mainly GaAs InP devices.
G02F1/025	Definition statement	Thermo optic effect,in semi conductor, mainly silicon, devices, see for example US2008112032	Using silicon as the electro-optical material for the waveguide.
G02F1/13452	Informative references	G02F1/1362D	G02F1/13454
G02F1/29	Relationship between large subject matter areas	G02B26/293W2	G02B6/293
G02F1/29	References relevant	Symbol corresponding to “Scanning arrangement” G02B26/10;	delete
G02F1/29	Informative references	“-“	to
G02F2/00	References relevant	Symbols corresponding to: “Optical receiver/ transmitter” H04B10/155, H04B10/158	H04B10/00
G02F2/00	References relevant	H04L7/22P	H04L7/0075
G02F2/00	References relevant	H04B10/12R	H04B10/2575
G02F2/004	Definition statement	Wavelength converter used to convert the carrier of high-bit-rate data from one wavelength to another see for example US2002085266	Wavelength converter used to convert the carrier of high-bit-rate data from one wavelength to another.
G02F3/00	Informative references		REMOVE SECTION
G02F7/00	Definition statement	(http://www.wipo.int/ipcpub)	delete

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

H01L

Modify: In the subclass definition, the Synonyms and Keywords section so that the text appears as shown below

In patent documents the expression/word package is often used with the meaning container, encapsulation.

H01L21/00

Special rules of classification within this group

Delete: "Indexing Codes under ECLA reform are used."

Change: "ECLA" to "CPC"

Glossary of terms

Modify: The third table row to read as follows:

Pre-, post-treatment	direct, for example in situ, treatment, preceding or following a main technological step, aimed at improving said main technological step or its result. Not considered as a technological step per se.Examples: - annealing or crystallisation after deposition of insulating layers, - cleaning before or after a technological step, - modifying an insulating layer just after its formation, e.g. implantation after deposition

H01L21/02115

Modify: reference in References relevant section as shown below

Carbon Nitride.	H01L21/02118

H01L21/02175

Modify: reference in References relevant section as shown below

Materials having a perovskite structure, e.g. BaTiO3	H01L21/02197

H01L21/0334

Modify: reference in References relevant section as shown below

Masks having an orientation or shape adapted to the requirements of an orientation dependent etching	H01L21/0334

H01L21/0405

Insert:

Special rules of classification within this group

Processes for fabricating devices having bodies of diamond not covered by H01L21/041 to H01L21/0425 are classified in H01L21/18 to H01L21/326 and are also mandatorily classified in H01L29/1602 as invention information or additional information whenever appropriate.

H01L21/0445

Insert:

Special rules of classification within this group

Processes for fabricating devices having bodies comprising crystalline silicon carbide not covered by H01L21/045 to H01L21/048 are classified in H01L21/18 to H01L21/326 and are also mandatorily classified in H01L29/1608 as invention information or additional information whenever appropriate.

H01L21/18

Delete: Current References relevant section

Insert:

References relevant to classification in this group

This subclass/group does not cover:

Making n- or p-doped regions for devices having semiconductor bodies of diamond; Changing their shape; Making electrodes	H01L21/041 to H01L21/0425
Making n- or p-doped regions for devices having semiconductor bodies comprising crystalline silicon carbide; Changing their shape; Making electrodes; Passivating silicon carbide surfaces	H01L21/045 to H01L21/048

H01L21/265

Insert: In the Informative references section, a second row in the table as shown below

Thermal treatment for modifying the properties of semiconductor bodies per se	H01L21/324

H01L21/28

Delete: Current Definition statement and References relevant section

Insert:

Definition statement

This subclass/group covers:

Includes processes for forming

- conductor-semiconductor,
- conductor-insulator-semiconductor, or
- conductor-insulator-conductor-insulator-semiconductor structures.

Multistep processes for manufacturing electrodes on semiconductor bodies characterized by

- a sequence of single steps, possibly including steps like deposition conductive material, alloying, silicidation,
- the structure or the shape of the electrode,

References relevant to classification in this group

This subclass/group does not cover:

Mono-step- processes: single diffusion of dopants, alloying of electrode materials, implantation of dopants	H01L21/22, H01L21/24, H01L21/265
Multistep processes for forming capacitor electrodes	H01L28/60

H01L21/28008

Insert: "e.g." in the Definition statement text between "structure," and "wherein" as shown below

Processes for the fabrication of conductor-insulator-semiconductor structure, e.g. wherein the conductor is part of the interconnect (gate level interconnect).

H01L21/28017

Delete: Current Definition

Insert:

Definition statement

This subclass/group covers:

Deposition of the insulators, using epitaxiy

Deposition of the conductor and the insulator within the same process chamber.

H01L21/3065

Modify: Definition statement so that it appears as

Definition statement

This subclass/group covers:

- sputter etching,
- particle (electron, ion, photon) beam enhanced etching
- light assisted etching.
- plasma etching
- dry etching, i.e. using an etching gas without plasma

H01L2021/775

Delete: In Informative references, table row one, "H01L21/02365"

Insert: In Informative references, table row one, "H01L21/02667" as shown below

Recrystallization of amorphous or polycrystalline semiconductor layers	H01L21/02667

H01L21/8239

Delete: Special Rules of classification section

Insert:

References relevant to classification in this group

This subclass/group does not cover:

Static random access memory structures	H01L27/11

H01L22/00

Modify: In the References Relevant section, the second table row to read as follows

Testing and controlling photoresist and lithographic patterns	G03F7/70633

H01L23/00

Modify: In the Informative references section, the eighth table row to read as follows:

Digital stores characterised by the use of particular electric or magnetic storage elements; Storage elements therefor	G11C11/00

H01L23/544

Modify: In the Informative reference section, the third table row to read as follows:

Marks used for overlay monitoring in photolithography	G03F7/70633

H01L23/585

Modify: In the Informative reference section, the first table row to read as follows:

Secure housings for data carriers (memories)	G06F21/86

H01L27/00

Insert: A preamble sentence as shown below under Synonyms and Keywords

In patent documents the following abbreviations are often used:

H01L27/0288

Delete: In the Informative References section, in the second table row, the following reference:

"H01L21/334C"

H01L27/10829

Modify: Informative references as shown below

Informative references

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

Conductor-insulator-semiconductor capacitors (e.g. formed in a substrate trench) per se	H01L29/66181, H01L29/92

H01L27/1085

Modify: Informative references as shown below

Making the capacitor per se	H01L28/40, H01L29/66181

H01L27/1087

Modify: Informative references as shown below

Making the capacitor per se	H01L29/66181

H01L27/10873

Modify: Informative references as shown below

Making the transistor per se	H01L29/66409

H01L27/12

Delete: in the Reverences relevant section the following statement:

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

H01L27/1203

Modify: the first table row of the Informative references section as shown below

Multistep processes to manufacture monocrystalline silicon TFTs on insulating substrates	H01L29/66772

H01L27/1211

Insert: In the Synonyms and Keywords section, the text before the first table row as shown below

In patent documents the following abbreviations are often used:

FinFET	MuGFET, BarFET, Triple gate FET, OMEGA FET, Pi-Gate FET

H01L27/1422 and H01L27/1423

Delete: Definitions for H01L27/1422 and H01L27/1423

H01L29/00

Modify: The Definition statement, the References relevant section, and the Synonym and keyword sections so they appear as follows

Definition statement

This subclass/group covers:

- Types of inorganic semiconductor components with at least one potential-jump barrier or surface barrier, adapted for rectifying, amplifying, oscillating or switching; Multistep manufacturing processes therefor.
- Types of components for integrated circuits being capacitors or resistors with at least one potential-jump barrier or surface barrier; Multistep manufacturing processes therefor.
- Details of semiconductor bodies of said components; Details of semiconductor bodies not otherwise provided for; Multistep manufacturing processes therefor.
- Details of electrodes of said components; Details of electrodes of semiconductor components not otherwise provided for; Multistep manufacturing processes therefor.

Further information:

In this main group:

Said potential-jump or surface barrier may be of the PN junction type, the metal-semiconductor junction type, the metal-insulator-semiconductor type, the high-low junction type, the heterojunction type.

Said details of semiconductor bodies and said multistep manufacturing processes therefor are covered by groups H01L29/02 to H01L29/365.

Said details of electrodes are covered by groups H01L29/40 to H01L29/518 except group H01L29/401, and said multistep manufacturing processes therefor are covered by group H01L29/401 (pending reorganisation see group H01L21/28 and subgroups).

Said types of inorganic semiconductor components are covered by groups H01L29/66 to H01L29/945 except groups H01L29/66007 and subgroups, H01L29/8605, H01L29/92 to H01L29/945, and said multistep manufacturing processes therefor are covered by group H01L29/66007 and subgroups except H01L29/66022 and H01L29/66166 to H01L29/66189.

Said resistors are covered by group H01L29/8605, and said multistep manufacturing processes therefor are covered by groups H01L29/66022, H01L29/6606 and H01L29/66166.

Said capacitors are covered by groups H01L29/92 to H01L29/945, and said multistep manufacturing processes therefor are covered by groups H01L29/66022, H01L29/6606 and H01L29/66174 to H01L29/66189.

References relevant to classification in this group

This subclass/group does not cover:

Processes or apparatuses adapted for the manufacture or treatment of semiconductor or solid state devices or of parts thereof	H01L21/00
Details of semiconductor or other solid state devices other than details of semiconductor bodies or of electrodes thereof	H01L23/00, H01L24/00
Passive two-terminal components without a potential-jump or surface barrier for integrated circuits; Details thereof; Multistep manufacturing processes therefor	H01L28/00
Semiconductor devices sensitive to infra-red radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation and adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof	H01L31/00
Semiconductor devices with at least one potential-jump barrier or surface barrier specially adapted for light emission; Processes or apparatus specially adapted for the manufacture or treatment thereof or of parts thereof; Details thereof	H01L33/00
Thermo-electric devices comprising a junction of dissimilar materials, i.e. exhibiting Seebeck or Peltier effect with or without other thermo-electric effects or thermomagnetic effects; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof	H01L35/00
Thermoelectric devices without a junction of dissimilar materials; Thermomagnetic devices, e.g. using Nernst-Ettinghausen effect; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L37/00
Devices using superconductivity; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L39/00
Piezo-electric devices; Electrostrictive devices; Magnetostrictive devices; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof; Details thereof	H01L41/00

Devices using galvano-magnetic or similar magnetic effects; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L43/00
Solid state devices adapted for rectifying, amplifying, oscillating or switching without a potential-jump barrier or surface barrier; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L45/00
Bulk negative resistance effect devices, e.g. Gunn-effect devices; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L47/00
Solid state devices not provided for in groups H01L27/00 to H01L47/00 and H01L51/00 and not provided for in any other subclass; Processes or apparatus peculiar to the manufacture or treatment thereof or of parts thereof	H01L49/00
Solid state devices using organic materials as the active part, or using a combination of organic materials with other materials as the active part; Processes or apparatus specially adapted for the manufacture or treatment of such devices, or of parts thereof	H01L51/00
Assemblies consisting of a plurality of individual semiconductor or other solid state devices	H01L25/00
Devices consisting of a plurality of solid state components formed in or on a common substrate	H01L27/00
Semiconductor lasers	H01S5/00
Printed circuits	H05K1/00, H05K3/00

Places in relation to which this group is residual:

Details of semiconductor bodies or of electrodes of semiconductor components	H01L31/00 to H01L47/00, H01S5/00, G01

Synonyms and keywords

In patent documents the following abbreviations are often used:1DEG	one-dimensional electron gas
1DHG	one-dimensional hole gas
2DEG	two-dimensional electron gas
2DHG	two-dimensional hole gas
ACCUFET	accumulation layer field-effect transistor
ALD	atomic layer doping
BARRITT	barrier injection transit time diode
BBD	bucket brigade device
BJT	bipolar junction transistor

BK	breakdown
BSIT	bipolar static induction transistor
CCD	charge coupled device
COMFET	conductivity modulation field-effect transistor
DDD	double diffused drain
DH	double heterojunction
DEMOS	drain extended metal-oxide-semiconductor transistor
DIAC	diode for alternating current
DMOS	double diffused metal-oxide-semiconductor transistor
FAMOS	floating gate avalanche injection metal-oxide-semiconductor transistor
FCD	field-controlled diode
FET	field-effect transistor
FG	floating gate
FinFET	field-effect transistor with fin-shaped active layer
FLR	field limiting ring
FN tunnelling	Fowler-Nordheim tunnelling
FW diode	freewheel diode
FW voltage	forward voltage
GTO	gate turn-off thyristor
HBT	heterojunction bipolar transistor
HEMT	high electron mobility transistor
HET	hot electron transistor
HV	high voltage
HVMOS	high voltage metal-oxide-semiconductor transistor
IGBT	insulated gate bipolar transistor
IGFET	insulated gate field-effect transistor
IMPATT	impact avalanche transit time diode
JFET	junction-gate field-effect transistor
JTE	junction termination extension
LDD	lightly doped drain
LDMOS	lateral double-diffused metal-oxide-semiconductor transistor
LOCOS	local oxidation of silicon
MBT	metal base transistor
MCT	MOS-controlled thyristor
MESFET	metal-semiconductor field-effect transistor
MGT	metal-oxide-semiconductor-gated thyristor
MIS	metal-insulator-semiconductor
MISFET	metal-insulator-semiconductor field-effect transistor
MNOS	metal nitride oxide semiconductor
MODFET	modulation doped field-effect transistor
MOSTOT	metal-oxide-semiconductor turn-off thyristor
MQW	multiple quantum well

NDR	negative differential resistance
NERFET	negative resistance field-effect transistor
NMOS	N-type channel metal-oxide-semiconductor (transistor)
PBT	permeable base transistor
PDB	planar doped barrier
PIN	P intrinsic N
PMOS	P-type channel metal-oxide-semiconductor transistor
RCT	reverse conducting thyristor
RESURF	reduced surface field
ROX	recessed oxide isolation
RT	resonant tunnelling
RTD	resonant tunnelling diode
SBD	Schottky barrier diode
SCR	silicon controlled rectifier
SET	single electron transistor
SIT	static induction transistor
SITH	static induction thyristor
SJ	superjunction
SL	superlattice
SOI	silicon-on-insulator
SQW	single quantum well
STI	shallow trench isolation
TFET	tunnel field-effect transistor
TFT	thin film transistor
TRAPATT	trapped plasma avalanche transit time diode
TRIAC	triode for alternating current
UMOS	U-shaped trench gate metal-oxide-semiconductor transistor
VMOS	V-shaped trench gate metal-oxide-semiconductor transistor
VDMOS	vertical double-diffused metal-oxide-semiconductor transistor
VTh	threshold voltage
QID	quantum interference device
QW	quantum well
ZD	Zener diode
In patent documents the following expressions/words are often used as synonyms:Atomic layer doping, atomic plane doping, delta doping	planar doping
Chip	die
Depletion region	space charge region

Electrode	contact
Group IV	group 14: C, Si, Ge, Sn, Pb
II-VI	group 12/16, e.g. CdTe
III-V, AIIIBV, AIII-BV	group 13/15, e.g. GaAs
Intrinsic	undoped, not intentionally doped
Impurity	dopant, doping material
Polysilicon, poly-Si	polycrystalline silicon
Charge compensation, coolMOS, multi-RESURF	superjunction
Channel stopper	channel stop, chanstop
In patent documents the expression/word is often used with the meaning:Breakover	start of regenerative current flow in a thyristor
Chip	piece of semiconductor material, e.g. single crystal semiconductor substrate, having one or more active or passive electric circuit elements
(charge or carrier) confinement	restriction of charge carriers to locations of reduced dimensions, e.g. quantum wells, field-effect induced potential wells
Crystal defect	non-uniformity in crystal lattice
De Broglie wavelength	wavelength of a particle
Depletion region	region from which free charge carriers are expelled
Direct bandgap material	semiconductor material wherein transition from the conduction to the valence band does not require a change in crystal momentum for an electron, e.g. gallium arsenide (GaAs)
Doping concentration	number of dopant atoms per a given volume of semiconductor material, e.g. per cubic centimetre
Doping density	number of dopant atoms per a given surface of semiconductor material, e.g. per square centimetre
Doping profile	point-to-point doping concentration throughout a semiconductor body or region thereof
Epitaxial layer	added layer of semiconductor crystal taking on the same crystalline orientation as a semiconductor crystal substrate
Field oxide	oxide layer overlying a major surface of a device semiconductor body
Floating gate	electrically floating gate electrode, e.g. having no direct electrical connection, usually used for charge storage
Forward bias	voltage applied in a current conducting direction
Indirect bandgap material	semiconductor material wherein transition from the conduction to the valence band requires a change in crystal momentum for an electron, e.g. silicon (Si)

Inversion layer	surface region in a semiconductor material wherein the minority carrier concentration is larger than the majority carrier concentration, e.g. induced by field-effect
Latch-up	regenerative feedback loop thyristor-type conducting state, being parasitic in e.g. non thyristor-type components due to loss of gating capability
Lifetime killer	deep level impurity creating a potential trap for charge carriers in the forbidden band remote from the conduction and valence bands thereby reducing charge carrier lifetime
Majority carrier	more abundant charge carrier
Minority carrier	less abundant charge carrier
Polycide	polysilicon-silicide stack
Recombination center, deep level center	potential trap for charge carriers in the forbidden band remote from the conduction and valence bands
Reverse bias	voltage applied in a current blocking direction
Shockley diode	two-terminal thyristor
Silicon controlled rectifier (SCR)	three-terminal thyristor
Salicide process	self-aligned silicide process
Wide band gap semiconductor material	semiconductor material with a band gap larger than 1.7 eV, e.g. SiC, GaN, diamond

H01L41/00

Delete: References relevant section

Insert:

References relevant to classification in this group

This subclass/group does not cover:

Semiconductor devices wherein carrier transport therein is modulated through stress generated by PE parts, e.g. strained channel FET	H01L29/68
Semiconductor devices controlled by applied mechanical force or pressure, e.g. piezoresistive devices	H01L29/84
Surgical cutting instruments	A61B17/320068
Dental cleaning, e.g. tooth brushes	A61C17/20
Inhalers	A61M15/0085
Atomisers for liquids; Nebulisers	B05B17/0607

PE mechanical vibration generators, e.g. (ultra)sonic probes - in medical diagnosis- for analysing material	B06B1/06, A61B8/00, G01N29/2437
Ultrasonic cleaning	B08B3/12
Hair clippers; Shavers	B26B19/28
Ink jet printers - Control methods or devices - Print head structures- Production thereof	B41J2/04581, B41J2/14201, B41J2/1607
Typewriters	B41J2/295
PE generators - in tyre sensors - in firing or trigger mechanisms of weapons- in photographic flash ignition	B60C23/0411, F41A19/62, G03B15/0463
Fuel injection in combustion engines - Control circuits or methods for injectors - Injectors- Injection valves	F02D41/2096, F02M51/0603, F02M59/468, F02M63/0026
Fuel ignition - in combustion engines- in lighters	F02P3/12, F23Q2/287, F23Q3/002
Devices comprising (ion) conductive EAPs (ionic EAPs; IPMCs) (based on electrochemical effects in these EAPs)	F03G7/005
Pumps - Diaphragma type micropumps - Tube type- Oscillatory type, e.g. fans	F04B17/003, F04B43/046, F04B43/095, F04D33/00
Brakes	F16D2121/28, F16D2129/12
Suppression of vibrations, i.e. active cancellation	F16F15/005
Valves	F16K31/004
PE arrangements for measuring length, width or thickness	G01B7/063
Gyroscopes	G01C19/56
Sensors for measuring level of liquids or fluent solid materials	G01F23/296
PE strain gauges	G01L1/16
PE pressure gauges	G01L9/0022, G01L9/008, G01L9/08, G01L23/10, G01L23/222
PE fluid micro-sensors, e.g. quartz crystal microbalance, SAW devices	G01N29/022
PE accelerometers	G01P15/09
PE probes for scanning probe microscopy (SPM)	G01Q10/045G01Q20/04
Adjustable mountings for optical elements, e.g. PE motorised lenses, objectives	G02B7/02, G02B7/10

PE MEMS optical mirror devices	G02B26/0858
PE sound producing horns, buzzers	G10K9/122
MS relays	H01H55/00
PE relays	H01H57/00
PE or MS release mechanisms in circuit breaker switches	H01H71/127
Devices consisting of plural semiconductor or other solid state components on a common substrate, e.g. integrated circuit arrangements, including PE components	H01L27/20
Electrostatic devices not based on deformation of a solid state body by electrical fields or mechanical forces (dielectric EAPs), e.g. based on relative motion of spaced conductors	H02N1/00
Impedance networks, frequency selective elements or circuits, e.g. resonators, filters, delay lines using BAW or SAW-Manufacturing	H03H9/00, H03H3/00
PE touch switches; Keyboards	H03K17/964
MS acoustic transducers, e.g. microphones, speakers	H04R15/00
PE acoustic transducers, e.g. microphones, speakers	H04R17/00

Insert: The following text immediately before the table that appears in the Synonyms and Keywords section

In patent documents the following abbreviations are often used:

H01L49/00

Delete: The current References relevant and Informative references sections

Insert:

References relevant to classification in this group

This subclass/group does not cover:

Passive two-terminal devices not adapted for integrated circuit arrangements - Resistors - of thick-film type - Manufacturing thereof - of thin-film type - Manufacturing thereof - Inductors - of printed circuit type - Manufacturing thereof - Capacitors- of thin-film or thick-film type	H01C, H01C7/003, H01C17/065, H01C7/006, H01C17/075, H01F, H01F5/003, H01F17/0006, H01F41/041, H01G, H01G4/33

Passive two-terminal devices adapted for integrated circuit arrangements	H01L28/00
Semiconductor or other solid state devices	H01L27/00 - H01L47/00, H01L51/00 or any other subclass, e.g. B81B

Informative references

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

Semiconductor SETs- Manufacturing	H01L29/7613, H01L29/66439, H01L29/66469
Superconductive transistors- FET type	H01L39/228, H01L39/146
Printed circuits - incorporating printed electric components- Manufacturing	H05K1/00, H05K1/16, H05K3/00

2. A. DEFINITIONS (i.e. new or modified)

H01M

Delete: Current subclass definition

Insert:

Definition statement

This group covers:

Constructional details or processes of manufacture of the non active parts, e.g. casings, mountings, vents, separators, current-conducting connections, arrangements for filling or emptying cases with or of liquid.

Electrodes composed of or comprising active material, processes of manufacture and active materials thereof, e.g. electrodes for primary cells, for lead-acid accumulator.

Inert electrodes with catalytic activity, processes of manufacture and catalytic materials thereof.

Primary cells, manufacture and servicing or maintenance thereof, e.g. cells with aqueous or non-aqueous electrolyte, deferred-action cells, printed batteries

Secondary cells, manufacture and servicing or maintenance thereof, heating or cooling; temperature control, e.g. lead-acid accumulators, alkaline accumulators, accumulators with non-aqueous electrolyte

Fuel cells or their stacks and manufacture thereof, e.g. alkaline fuel cell, polymer electrolyte fuel cell, solid oxide fuel cell, biochemical fuel cells comprising enzymes as catalysts

Combination of fuel cells with means for production of reactants, e.g. with reformer or for treatment of residues

Hybrid cells, e.g. Zinc-air battery, half-cell of a fuel cell type and half-cell of a primary or secondary cell type

Structural combinations of different types of electrochemical generators.

Relationship between large subject matter areas

This subclass does not cover the preparations of chemical compounds as such, which subject matter is covered by classes C01 (inorganic chemistry), C07 (organic chemistry) and C08 (organic macromolecular compounds).

Specific chemical compounds for batteries and their preparation are classified in C01, C07

and C08 as well as in H01M.

Apparatus for testing electrical condition of accumulator or batteries are classified in G01R31/36 and accumulators combined with arrangements for measuring, testing or indicating condition are classified in H01M10/48

Electrochemical processes or apparatus otherwise than for generating energy C25

References relevant to classification in this subclass

This group does not cover:

Hybrid capacitors	H01G11/00
Circuits arrangements for charging or depolarising batteries or for supplying loads from batteries	H02J7/00

Informative references

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

Catalysts	B01J23/00, B01J25/00, B01J27/00, B01J31/00
Disposal of solid waste	B09B
Working or processing of sheet metal or metal tubes	B21D
Casting of metals	B22D
Shaping of substances in a plastic state	B29C
Producing particular articles from plastics or from substances in a plastic state.	B29D
Arrangement or mounting of plural diverse prime-movers characterised by the electric storing means, e.g. batteries	B60K6/28
Arrangement or mounting of plural diverse prime-movers characterised by the fuel cells	B60K6/32
Electric propulsion using power supplied from primary cells, secondary cells or fuel cells	B60L11/18
Arrangement of batteries specially adapted for vehicles	B60R16/04
Supplying batteries to, or removing batteries from vehicles	B60S5/06
Conjoint control of vehicle sub-units of different type including control of energy storage means, e.g. batteries	B60W10/26
Conjoint control of vehicle sub-units of different type including control of fuel cells	B60W10/28
Containers or packages with special means for dispensing contents for batteries	B65D85/88
Measuring or testing processes involving enzymes	C12Q1/00
Electrodes for electrolytic processes	C25B11/00, C25C7/00,

Electrodes for electrolytic or electrophoretic process for the production of compounds or non metals	C25B11/00
Diaphragms; spacing elements for electrolytic or electrophoretic process for the production of compounds or non metals	C25B13/00
Electrodes for electrolytic production, recovery or refining of metals	C25C7/02
Diaphragms; spacing elements for electrolytic production, recovery or refining of metals	C25C7/04
Electrodes for electrolytic coating	C25D17/10
Indicating or measuring liquid	G01F23/00
Investigating or analysing materials by determining their chemical or physical properties	G01N
Apparatus for testing electrical condition of accumulator or electric batteries	G01R31/36
Control of temperature	G05D23/00
Electrolytic light sensitive devices	H01G9/20
Electrolytes for electrolytic capacitors	H01G9/022
Lithium-ion capacitors	H01G11/06
Semi-conductor or other solid state devices for converting light or heat into electrical energy	H01L31/00, H01L35/00, H01L37/00, H01L51/42
Electrically conductive connections	H01R
Conversion of dc power input into dc power output using batteries	H02M3/18
Photovoltaic modules structurally associated with energy storage means, e.g. batteries	H02S40/38

Special rules of classification within this subclass

Every technical aspect of the invention is classified with inventive symbols and additional information from the description with additional symbols. When the battery or fuel cell is characterised by the combination of a specific positive electrode, specific negative electrode and/or specific electrolyte: every specific components of the combination will be classified with inventive symbols.

When a breakdown Indexing Code represents the invention , the corresponding upper group should also be given.

When the type of battery is not mentioned, the classification of the invention is done in the primary and secondary type of battery classes.

When a group for a process does not exist, it is classified within the material of the object.

Additional orthogonal Indexing Codes are used for "additional information" and are always given together with a CPC group. Classification with these codes is highly desirable, since they provide an efficient search tool when combined with a CPC group.

They concern:

H01M2200/00 and subgroups : Safety devices for primary or secondary batteries

H01M2220/00 and subgroups: Batteries for particular applications

H01M2250/00 and subgroups: Fuel cells for particular applications; Specific features of fuel cell system

H01M2300/00 and subgroups: Electrolytes

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Active materials, active masses, active liquids	materials, masses, liquids participating in the electrochemical reactions
Inert electrodes	Electrodes characterised by their catalytic activity
Primary cells	Cells, where the cell energy present in chemical form is not regenerated
Secondary cells, accumulator	Rechargeable cells, characterised by reversible electrochemical reactions
Battery	Device comprising one or more electrochemical cells
NTC, PTC	NTC (negative temperature coefficient) thermistors with their resistance decreasing with increasing temperature, PTC (positive temperature coefficient) thermistors with their resistance rising with increasing temperature
Redox flow battery	Reversible fuel cell in which all electroactive components are dissolved in the electrolyte with a flow circulation system of the electrolyte
Redox fuel cell, indirect fuel cell	Fuel cell where the oxydant or fuel is not reacted directly at the electrode but with the reduced/oxidised form of a redox couple and the oxidised/reduced species are fed to cathode/anode

Synonyms and keywords

In patent documents the following abbreviations are often used:

Electrochemical storage device	Galvanic primary cell or secondary cell (battery, accumulator), electrochemical capacitors (in particular pseudocapacitors and hybrid capacitors

H01M8/06

Insert:

Special rules of classification within this group

The combination of fuel cell with means for production of reactants, e.g. reformer or for treatment of residues, e.g. removal of sulfur will be classified in H01M8/06 subgroups.

If the invention concern specifically the mean associated with the fuel cell, the means is classified and the aspect of the combination of the fuel cell with that mean is classified in H01M8/06 subgroups as additional symbol.

Temperature control means of a system combining fuel cell and for example a reformer will be classified in H01M8/06 subgroups, H01M8/04298 subgroups and in C01B3/02 subgroups if the temperature control concerns the reformer.

Every means in a combination system will be classified as invention or additional symbol according to the specific aspect of the invention, e.g. emphasis on the system or on a specific mean.

H01M8/0618

Insert:

Relationship between large subject matter areas

Reformers are classified in C01B3/02 subgroups

Special rules of classification within this group

In a system comprising fuel cell and reformer, if the invention concerns only the reformer, the reformer will be classified in C01B3/02 subgroups and the fuel cell (minor aspect) will be classified with H01M8/06 as additional symbol.

If the invention concerns the whole system, then the invention is classified in H01M8/06 subgroups.

H01M14/005

Insert:

Definition statement

This group covers:

Photoelectrochemical storage cells wherein the light causes a change in chemistry and the energy is stored and discharged at later stage.

Relationship between large subject matter areas

This group does not cover solar cells, photocells, photoelectrochemical cells or photovoltaic cells which are covered by the following groups:

- Semiconductor devices sensitive to light and adapted for the conversion of the energy of such radiation into electrical energy are covered by group H01L31/00
- Solid-state devices using organic materials as active part specially adapted for sensing light and adapted for the conversion of the energy of such radiation into electrical energy are covered by group H01L51/42
- Electrolytic light sensitive devices, e.g. dye-sensitised solar cells, are covered by group H01G9/20
- Photovoltaic modules structurally associated with energy storage are covered by group H02S40/38

References relevant to classification in this group

This group does not cover:

Semiconductor devices sensitive to light	H01L31/00
Solid-state devices using organic parts specially adapted for sensing light	H01L51/42
Electrolytic light sensitive devices	H01G9/20
Photovoltaic modules structurally associated with energy storage	H02S40/38

H01M16/003

Insert:

Definition statement

This group covers:

Association of fuel cells with other electrochemical generators, e.g. fuel cell + electrolysers, fuel cell+ battery, fuel cell + capacitor

2. A. DEFINITIONS (i.e. new or modified)

H04L63/00

Delete: The current group definition

Insert:

Definition statement

This group covers:

Networking architectures and network communication protocols for securing the traffic flowing through data packet networks and providing secure exchanges among applications communicating through data packet networks. The group covers specifically network architectures and network communication protocols for supporting:

- filtering (e.g. transferring, blocking, dropping) traffic according to security rules;
- authenticating and authorizing the entities sending and/or receiving the traffic;
- protecting the data packets against unauthorized reading or modification;
- detecting intruders and preventing the transmission of unauthorized, malicious or forged packets;
- lawful interception for legally authorised parties to access protected information.

H04L63/00 focuses on network architectures (i.e. network entities involved, roles played by these entities) and network communication protocols (i.e. how these network entities communicate) regardless of the specifics of the cryptographic mechanism used.

Relationship between large subject matter areas

H04W12/00 Wireless networking architectures and wireless network communication protocols for securing the traffic flowing through wireless data packet networks and providing secure exchanges among applications communicating through wireless data packet networks. The group covers

specifically wireless network architectures and wireless network

communication protocols for supporting:

- Authenticating and authorizing the entities sending and/or receiving the traffic;
- Protecting the data packets against unauthorized reading or modification;
- Detecting intruders, rogue entities and preventing the transmission of unauthorized, malicious or forged packets;
- Lawful interception for legally authorised parties to access protected information.

H04W12/00 focuses on wireless network architectures (i.e. wireless network entities

involved, roles played by these entities) and wireless network communication protocols (i.e. how these network entities communicate) regardless of the specifics of the cryptographic mechanism used.

Details for wireless network security are classified where appropriate by the combination of H04W12/00 subgroup and H04L63/00 detailed subgroup.

H04L12/22 subject-matter is always classified in the corresponding subclasses of H04L63/00 and or H04W12/00.

H04L9/00 Cryptographic mechanisms including cryptographic protocols and cryptographic algorithms, whereby a cryptographic protocol is a distributed cryptographic algorithm defined by a sequence of steps precisely specifying the actions required of two or more entities to achieve specific security objectives (e.g. cryptographic protocol for key agreement), and whereby a cryptographic algorithm is specifying the steps followed by a single entity to achieve specific security objectives (e.g. cryptographic algorithm for symmetric key encryption).

H04L9/00 focuses on cryptographic mechanisms such as encryption schemes, digital signatures, hash functions, random number generation, key management, said cryptographic mechanisms providing information security such as privacy or confidentiality, data integrity, message authentication, entity authentication, authorization, validation, certification, time-stamping, anonymity, revocation, non-repudiation.

H04L9/00 covers also countermeasures against attacks on cryptographic mechanisms.

G06F21/00 Security arrangements for protecting computers or computer systems against unauthorised activity, where the network communication aspect is not important.

References relevant to classification in this group

This group does not cover:

Registering, indicating or recording the time of events or elapsed time, e.g. time-recorders for work people	G07C9/00
Security in Network Management, e.g. restricting network management access	H04L12/2461
Non security aspects of network monitoring arrangements,in particular data switching networks monitoring arrangements involving a reduction of monitoring data using filtering	H04L12/2602
Non security aspects of VPN are classified in	H04L12/4641
Protection against unsolicited messages, e.g. Spam	H04L12/585
Non security aspects of communications control adapted for proprietary and special purpose networking	H04L67/12
Unsolicited communication attempts in real-rime communications, e.g. SPIT = Spam in IP Telephony	H04L65/1079
Lawful interception of POTS calls	H04M3/2281
Secrecy in the context of scanning, transmission or reproduction of documents or the like	H04N1/44

Security in selective content distribution, e.g. interactive television, VOD	H04N21/00
Secrecy and Subscription systems in television systems	H04N7/16
Cryptographic mechanisms or cryptographic arrangements for secret or secure communication	H04L9/00
Network architectures or network communication protocols for wireless network security	H04W12/00
Security arrangements for protecting computers or computer systems against unauthorised activity	G06F21/00
Systems for paying without using coins or banknotes, e.g. smart cards.	G07F7/00

Informative references

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

Documents related to vehicle alarm	B60R25/00
Documents related to electronic door lock	E05B47/00
Payment schemes, architectures or protocols	G06Q20/00
Documents related to burglar, theft and intruder alarm	G08B13/00
Documents related to combined burglar and fire alarm	G08B19/00
Documents related to alarm, in which the location of the alarm is signalled to a central station	G08B25/00

Special rules of classification within this group

Classification of the additional aspects of an application in H04L63/00 is mandatory.

In some cases specific protocols (e.g. IPsec, EAP, TLS) and/or architectures (firewalls, AAA) are used. In other cases existing network protocols, architectures and services are modified to achieve the security goals. In such cases, the documents are classified both in the corresponding security subgroups and in the respective application subgroups of e.g. addressing H04L61/00, mobile services H04W4/00, routing H04L47/00 or cryptographic mechanisms H04L9/00).

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

RFC 4949	Internet Security Glossary, Version 2; definition of Internet Security Terms

H04L63/02

Insert:

Definition statement

This group covers:

Here are classified the documents related to the (logical) separation of traffic/(sub-) networks to achieve protection.

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

ALG	Application Level Gateway

H04L63/0209

Insert:

Definition statement

This group covers:

Here are classified devices and arrangements like firewalls, perimeter networks, bastion hosts, demilitarized zones, etc that are placed at the interface between two or more (sub-) networks, usually a private network (e.g. Intranet) and the public network.

H04L63/0218

Insert:

Definition statement

This group covers:

Systems where every host, e.g. network interface card or dedicated security box, includes firewall capabilities or systems where firewalls communicate to share attack information and improve their efficiency.

Relationship between large subject matter areas

Multiple firewall nodes (cluster) for high-availability or load-distribution	H04L67/1002

H04L63/0227

Insert:

Definition statement

This group covers:

Aspects related to how traffic is filtered.

H04L63/0236

Insert:

Definition statement

This group covers:

Filtering of traffic based on address information, e.g. IP-address or URL or packet header information, e.g. protocol number or port number.

H04L63/0245

Insert:

Definition statement

This group covers:

Filtering of information is performed based on the contents of the application payload.

Documents referring to content filtering in general and just mentioning virus scanning as a possible application are also classified here

Relationship between large subject matter areas

When the application payload is inspected specifically to detect viruses, worms, exploits etc, the documents are classified in	H04L63/145
Parental control, rating systems etc where the filtering depends on user or machine profile are also classified in	H04L63/10

Informative references

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

Specialized CPUs or hardware for application information filtering/parsing	H04L69/22

H04L63/0254

Insert:

Definition statement

This group covers:

Stateful firewall keeping track of the state of network connections, e.g. TCP streams, travelling across it being able to filter packets according rules and/or taking appropriate action (e.g. cleaning, discarding, forwarding).

Relationship between large subject matter areas

Monitoring of connection state to detect and mitigate attacks (e.g. SYN attacks)	H04L63/1441

H04L63/0263

Insert:

Definition statement

This group covers:

Aspects related to how the filtering rules are organized, defined, evaluated or added in a firewall are classified here.

Relationship between large subject matter areas

Rule management in the sense of access control rules to access to network resources (authorisation)	H04L63/101
Security policies in general	H04L63/20

H04L63/0272

Insert:

Definition statement

This group covers:

Restricted-use, logical networks constructed from the system resources of a relatively public, physical network, e.g. Internet, realised e.g. using encryption or tunnelling links of the virtual network across the real network, e.g. using IPsec ESP between security gateways.

Informative references

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

Non security aspects of VPN	H04L12/4641

H04L63/0281

Insert:

Definition statement

This group covers:

Relaying protocol(s) between e.g. client and server systems, by appearing to the client to be the server and appearing to the server to be the client.

Instead of a client in the protected enclave connecting directly to an external server, the internal client connects to the proxy server which in turn connects to the external server. The proxy may be transparent to the clients, or they may need to connect first to the proxy server, and then use that association to also initiate a connection to the real server. Proxies may provide protocol/application specific functionality (e.g. HTTP Proxy) or may provide generic connection services (e.g. SOCKS). Proxies can provide security service

beyond that which is normally part of the relayed protocol, such as access control based on peer entity authentication of clients, or peer entity authentication of servers when clients do not have that capability. These aspects should be classified in the appropriate sub-groups.

Informative references

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

Non security aspects of proxies where processing is performed in an intermediate network node	H04L67/28

Special rules of classification within this group

Using a proxy for authentication is classified here in combination with H04L63/08 (and subgroups).

H04L63/029

Insert:

Definition statement

This group covers:

The mechanisms for achieving connections through firewalls are classified here, e.g. tunnelling the application protocol in a protocol that is allowed through the firewall (e.g. HTTP, SMTP) or using of an application layer gateway which understands the application message and opens the appropriate pinholes in the firewall.

Informative references

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

Non secure NAT traversal	H04L61/256

Special rules of classification within this group

For some documents H04L63/0281 is also to assign.

H04L63/04

Insert:

Definition statement

This group covers:

Network architectures and communication protocols for implementing confidentiality of information transmitted over a data packet network, most often by applying cryptographic mechanisms. Also classified here are networking architectures and protocols for anonymous communications.

Relationship between large subject matter areas

Confidential data exchange adapted to wireless networks	H04W12/02

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or algorithms per se	H04L9/00

H04L63/0407

Insert:

Definition statement

This group covers:

Protecting the identity of a party (origin or destination) against disclosure to a third party (eavesdropper) or the other party.

Informative references

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

Protecting personal data on a computer, e.g. for financial or medical purposes	G06F21/6245

H04L63/0414

Insert:

Definition statement

This group covers:

The identity is only known to the other party or parties involved in the communication. Protecting the party's identity usually involves specific techniques which are different from message confidentiality, since the identity is used for routing and authentication purposes.

H04L63/0421

Insert:

Definition statement

This group covers:

The identity of one of the parties is not disclosed to the other party. Some techniques involve the use of aliases, anonymizer proxies, onion routing, etc.

References relevant to classification in this group

This group does not cover:

Cryptographic techniques for anonymity, e.g. electronic voting, cryptographic pseudonyms	H04L9/32

Informative references

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

Protecting personal data on a computer by anonymising	G06F21/6254

H04L63/0428

Insert:

Definition statement

This group covers:

Communication protocols used to protect the information exchanged through networks. Also are classified here architectural arrangements to achieve the protection, e.g. encryption proxies. The subgroups identify specific techniques therefore.

H04L63/045

Insert:

Definition statement

This group covers:

Symmetric and asymmetric encryption is combined. Usually symmetric encryption is used to protect the message and the symmetric (session) key is encrypted using asymmetric encryption, so no one other than the intended recipient can "open" the message.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms using a plurality of keys or algorithms	H04L9/14

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

digital envelope	the combination of the encrypted data and the encrypted key

H04L63/0457

Insert: New Definition

Definition statement

This group covers:

Stream encryption, i.e. serially and continuously modifying data streams.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms for stream encryption	H04L9/0643

H04L63/0485

Insert:

Definition statement

This group covers:

Hardware and software architectures, e.g. IPsec offloading, specifically adapted for improving the process of encrypting and decrypting packets and handling the security association tables.

H04L63/06

Insert:

Definition statement

This group covers:

Network architectures and communication protocols for negotiation, transport, validation, or update of security keys or credentials (i.e. specific network entities involved and the network protocols used) regardless of whether they are used for confidentiality (privacy), authentication, access control or for integrity validations in order to strictly differentiate between the initialisation phase (i.e., key distribution/exchange phase) of any secure communication and the secure communication itself.

Relationship between large subject matter areas

Key management specially adapted for wireless networks	H04W12/04.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms for key management	H04L9/08

H04L63/061

Insert:

Definition statement

This group covers:

Exchanging the respective security keys directly between two communicating parties such as e.g. in peer-to-peer networks.

References relevant to classification in this group

This group does not cover:

The cryptographic mechanisms or cryptographic arrangements for key agreement	H04L9/0838

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Typical standardised protocols for key exchange are IKE (Internet Key Exchange) or ISAKMP (Internet Security Association and Key Management Protocol).

H04L63/062

Insert:

Definition statement

This group covers:

Distributing the respective security keys from a central trusted party such as a Key Distribution Centre (KDC) to the attached network nodes. A typical (hierarchical) architecture for key distribution is represented by PKI (Public Key Infrastructure).

References relevant to classification in this group

This group does not cover:

The cryptographic mechanisms or cryptographic arrangements for key distribution involving a central third party	H04L9/083

H04L63/065

Insert:

Definition statement

This group covers:

Key exchange or distribution within multicast/broadcast networks typically by using a group key for confidentiality and/or authentication purposes (typical protocol standard: Group Key Management Protocol GKMP).

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for key management involving conference or group key	H04L9/0833

H04L63/067

Insert:

Definition statement

This group covers:

Keys are only used once.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for generation of one-time passwords	H04L9/0863

H04L63/068

Insert:

Definition statement

This group covers:

Periodically changing keys, e.g., based on time stamps.

Relationship between large subject matter areas

The aspects related to password renewal	H04L63/0846

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for controlling usage of secret information	H04L9/088

H04L63/08

Insert:

Definition statement

This group covers:

Verifying the identity of a user, device or application trying to gain access to (resources of) a network or documents describing authentication protocols and specific network architectures therefore.

Relationship between large subject matter areas

Authentication specially adapted for wireless networks	H04W12/06

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms for entity authentication	H04L9/32

Informative references

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

Those documents where the network aspects are not relevant	G06F21/30
Active credit-cards provided with means to personalise their use	G07F7/1008

Special rules of classification within this group

The selection of an authentication mechanism is classified in H04L63/08 in combination with H04L63/205 or H04L69/24.

Using a proxy for authentication is classified here in combination with H04L63/0281.

Authentication using multiple network paths is classified in appropriate H04L63/08 subgroup in combination with H04L63/18.

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Authentication	Identify if the entity is the one he/she claims to be. Remark: authentication and authorisation are sometimes used with the other meaning in patent literature as well as in non patent literature

H04L63/0807

Insert:

Definition statement

This group covers:

Ticket-based authentication mechanisms, e.g. Kerberos, SESAME. Tickets may be transmitted in different ways, e.g. in a cookie.

Relationship between large subject matter areas

When the same ticket enables the authentication to a plurality of network resources, e.g. Single-Sign-On	H04L63/0815

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for entity authentication using tickets or tokens	H04L9/3213

Informative references

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

Digital data processing restricting access to computer systems by authenticating users, devices or programs using a predetermined code using a certificate from a trusted centre or via a trusted hierarchical route	G06F21/335

H04L63/0815

Insert:

Definition statement

This group covers:

Mechanisms where a user/device supplies a single authentication credential and gets access to a plurality of resources in a network.

H04L63/0823

Insert:

Definition statement

This group covers:

Authentication is based on certificates; also issuing or retrieval of certificates.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for entity authentication involving certificates	H04L9/3263

Informative references

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

Computer user authentication using certificates	G06F21/33

Special rules of classification within this group

Documents related to the use of certificates for authorization (e.g. attribute certificates) are classified in combination with H04L63/10.

H04L63/083

Insert:

Definition statement

This group covers:

If string of characters, not only actual words, but also passcodes (like PIN), software tokens or keys, is used for authentication.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for entity authentication using a predetermined code	H04L9/3226

H04L63/0846

Insert:

Definition statement

This group covers:

Time synchronisation exists between e.g. the supplicant and the authenticator or periodically changing passwords or password expiration or password ageing aspects.

H04L63/0853

Insert:

Definition statement

This group covers:

The authentication is performed using additional devices, e.g. smartcards, SIM or similar devices for authentication, an additional communication device (e.g. using a mobile telephone for authenticating a session established through a computer connected to a data network)

Informative references

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

Digital data processing restricting access to computer systems by authenticating users, devices or programs using a predetermined code in combination with an additional device	G06F21/123
Payment schemes, architectures or protocol characterised by the use of a wireless device	G06Q20/32
Active credit cards provided with means to personalise their use, e.g. with PIN-introduction/comparison system	G07F7/1008

Special rules of classification within this group

When the additional device establishes an additional channel for performing the authentication, the document is also classified in H04L63/18

H04L63/0861

Insert:

Definition statement

This group covers:

Authentication in network or networks based on biometric features e.g. fingerprint, retina-scan

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements entity authentication using biological data	H04L9/3231

Informative references

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

User authentication on a computer using biometric features	G06F21/32

H04L63/0869

Insert:

Definition statement

This group covers:

Authentication of both parties communicating over network.

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for mutual authentication	H04L9/3273

Informative references

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

Mutual authentication between programs	G06F21/445

H04L63/0876

Insert:

Definition statement

This group covers:

The authentication is performed based on the identity of the terminal e.g. MAC address or other address or configuration of hardware or software or device fingerprint.

H04L63/0884

Insert:

Definition statement

This group covers:

The authentication is delegated to another entity which acts on behalf of the entity to be authenticated.

H04L63/0892

Insert:

Definition statement

This group covers:

AAA servers or protocols are used to authenticate entities.

H04L63/10

Insert:

Definition statement

This group covers:

Mechanisms to allow or restrict the access to a network or to some network elements or resources, for example by restricting access to a particular group of computers or contents based on their address or based on the identity of the network user (e.g. list of forbidden websites, parental control).

Relationship between large subject matter areas

Access control in wireless networks	H04W12/08

References relevant to classification in this group

This group does not cover:

Restricting network management access	H04L12/2461

Informative references

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

Protection of software on a computer against unauthorized usage (e.g. DRM)	G06F21/10
Protection of data on a computer against unauthorized access or modification	G06F21/121

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Authorisation	Identify which rights are assigned to an entity. Remark: authentication and authorisation are sometimes used with the other meaning in patent literature as well as in non patent literature

H04L63/101

Insert:

Definition statement

This group covers:

Authorization is implemented via access control lists.

H04L63/102

Insert:

Definition statement

This group covers:

Documents are classified here when they focus on the use of entity profiles, e.g. device profiles or user profiles to manage access decisions. Also documents related to identity management are classified here.

H04L63/104

Insert:

Definition statement

This group covers:

Mechanisms for implementing access control to group or groups of entities.

Relationship between large subject matter areas

Role based access control (each entity is associated to a group/role, and each role has a different privilege level)	H04L63/105

H04L63/105

Insert:

Definition statement

This group covers:

Mechanisms for implementing multiple levels of security or different access rights according to entities (e.g. device or user) security clearance, to security profiles, roles or to security perimeters (i.e. different zones of a network need different security clearance/levels; data pump i.e. low level security is able to communicate with higher level and not vice versa)

H04L63/107

Insert:

Definition statement

This group covers:

Security policies being different for a user or an entity dependent on the current location

Informative references

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

Mobile application services making use of the location of users or terminals	H04W4/02

H04L63/12

Insert:

Definition statement

This group covers:

Network architectures and communication protocols mechanisms, e.g. signatures, MIC/MAC codes and others more, for guarantying the integrity of the information exchanged through a packet data network are classified here. Both the aspect of verifying the content and the identity of the source are classified here. Documents emphasizing one of the sub-aspects are classified in the corresponding subclass.

Relationship between large subject matter areas

When specially adapted to wireless networks	H04W12/10

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for data integrity and verification	H04L9/32

Informative references

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

Protecting data on a computer against unauthorised access or modification, protecting integrity	G06F21/64

H04L63/123

Insert:

Definition statement

This group covers:

Network ensures that the content has not been tampered with during transmission through the network.

H04L63/126

Insert:

Definition statement

This group covers:

Verification of the identity of the original source of received data is applied (non-repudiation with proof of origin, non-repudiation with proof of receipt, trust level of identity and/or source).

H04L63/14

Insert:

Definition statement

This group covers:

Detection and protection against network attacks.

Relationship between large subject matter areas

Detection and protection aspects specific of wireless networks (e.g. detection of rogue entities, access points); if appropriate, the corresponding H04L63/14 subgroup is also to assign.	H04W12/12

Informative references

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

Virus detection algorithms within a computer	G06F21/56
Intrusion is detected based on the activity within a computer (e.g. controlling the memory access, watching the execution of the programs, watching traces of failed login attempts, etc.), this is what usually is referred to in the bibliography as Host-based IDS	G06F21/566

H04L63/1408

Insert: New Definition

Definition statement

This group covers:

Detection of attacks involves monitoring the traffic on the network. Detection can be performed by different means; anomaly detection (comparing monitored traffic against normal traffic); misuse detection (detecting specific traces which imply an attack).

Informative references

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

General traffic monitoring aspects	H04L43/00

H04L63/1416

Insert:

Definition statement

This group covers:

Real time detection of attacks or intrusion attempts (e.g. “misuse detection”).

H04L63/1425

Insert:

Definition statement

This group covers:

Traffic logging for security purposes (e.g. detecting normal or anomalous behaviour; comparing behaviour; offline analysis using data mining, network security audit); non-real detection for deferred analysis.

H04L63/1433

Insert:

Definition statement

This group covers:

Active probing of the network looking for vulnerable points, e.g. performing port scans, sending malformed packets and checking if they are detected.

H04L63/1441

Insert:

Definition statement

This group covers:

Detection and mitigation of particular types of attacks.

H04L63/1458

Insert:

Definition statement

This group covers:

Mitigation of denial of service attacks (also referred to as flooding, overload or congestion attacks) are classified here. Some techniques involve identification of the path followed by the attack. Some other techniques include rate limitation (throttling) or QoS (separation in different class of service). Some documents relate to black-hole attacks, wherein a malicious node discards all or part of the traffic (black-hole, gray-hole, worm-hole).

Informative references

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

For QoS may be also relevant	H04L47/10

Ad-hoc environments	H04W84/18

H04L63/1466

Insert:

Definition statement

This group covers:

Protection against active wire tapping in which the attacker attempts to seize control of a communication association, e.g. packet injection or modifying, hijacking sessions, TCP sequence number attacks, piggyback attacks, man-in-the-middle attacks, spoofing etc.

H04L63/1475

Insert:

Definition statement

This group covers:

Passively monitoring an existing session without the session participants noticing; e.g. eavesdropping or listening without modification of the traffic monitored.

H04L63/1483

Insert:

Relationship between large subject matter areas

Detection of rogue access point	H04W12/12

H04L63/16

Insert:

Definition statement

This group covers:

Security solution is specific to a certain layer.

Informative references

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

Particular aspects of OSI layers in general	H04L69/32

Special rules of classification within this group

This entry provides additional information. The documents classified here will also have a subgroup in further appropriate network security subgroup or subgroups.

H04L63/18

Insert:

Definition statement

This group covers:

Network traffic is secured by transmitting information through different paths of networks are classified here.

Two examples are:

- placing an order over the internet and using a telephone to communicate credit card information,
- or using a password received via SMS to obtain access to a remote computer

References relevant to classification in this group

This group does not cover:

Cryptographic mechanisms or cryptographic arrangements for authentication using a plurality of channels	H04L9/3215

H04L63/20

Insert:

Definition statement

This group covers:

Management of network security or network security policies, e.g. managed services, deciding where to put firewalls, which data to encrypt, which authentication method to use, etc.

Informative references

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

Security of network management functions, e.g. restricting network management access	H04L41/28
Negotiation of communication capabilities in general	H04L69/24

Special rules of classification within this group

Packet filtering policies H04L63/0227 and subgroups.

The classification in combination with H04L63/08, H04L63/04, H04L63/10 is given to documents involving the selection of a particular authentication or confidentiality methods or access privileges by negotiation, according to capabilities or policies.

H04L63/205

Insert:

Definition statement

This group covers:

Negotiation or determination between networking entities of the one or more network security algorithms to be used.

References relevant to classification in this group

This group does not cover:

Negotiation of communication capabilities in general	H04L69/24

H04L63/30

Insert:

Definition statement

This group covers:

Lawful interception; monitoring or retaining of communications or communication-related information

Informative references

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

Lawful interception of Plain Old Telephone Systems (POTS)	H04M3/2281

Glossary of terms

In this group, the following terms (or expressions) are used with the meaning indicated:

Handover Interface	Lawful interception handover interface HI1, HI2, and HI3 to hand over warrant, intercept related information and communication content between service provider and lawful authorities

H04L63/302

Insert:

Definition statement

This group covers:

Gathering intelligence information for situation awareness or reconnaissance, tactical control or intelligence concepts.

H04L63/304

Insert:

Informative references

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

Lawful interception of wireless communication	H04W12/02

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
H04L12/467	Special Rules	Classes from the H04L12/4645 subgroups and the class H04L12/467 might be allocated to a single document only if two VLAN operational modes	Groups under H04L12/4645 and the group H04L12/467 might be allocated to a single document only if two VLAN operational modes
H04L41/147	References Relevant	modelling of isolated element's of the network, auditing/low	modelling of isolated elements of the network, auditing
H04L67/2828	Definition Statement	", e.g. (XP000639230)"	Delete

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.

2. A. DEFINITIONS (i.e. new or modified)

H05K1/14

Delete: Current Informative references section

Insert: References relevant and Informative references sections

References relevant to classification in this group

This group does not cover:

Printed elements for providing electric connections to or between printed circuits	H05K1/11

Informative references

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

Connectors for printed circuits	H01R9/09
Two-part coupling devices for connection to or between printed circuits	H01R23/68

2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing**	**New**
H05K13/00	Synonyms and Keywords		Add preamble: *In patent documents the following abbreviations are often used:*

NOTE: The table above may be used for less detailed definition corrections or modifications, e.g. misspelling, minor clarification, deletion of reference. Changes may not affect the subject matter scope of the area.