EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 648

DATE: FEBRUARY 1, 2019

PROJECT MP0414

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

Action	**Subclass**	**Group(s)**
DEFINITIONS:		
Definitions Modified:	C12Q	Subclass
	C12Q	1/00, 1/68, 1/6804, 1/6806, 1/6809, 1/6816,1/6818, 1/682, 1/6823, 1/6825, 1/6827, 1/6832, 1/6834, 1/6837, 1/6841, 1/6844, 1/6848, 1/6851, 1/6855, 1/6858, 1/6869, 1/6876, 1/6883, 1/6886, 1/6897

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

2. A. DEFINITIONS (modified)

Insert: The following changes into the existing Definitions.

C12Q

Definition statement

This place covers:

Replace: The first paragraph

"Processes in which … cholesterol, geomicrobiological testing."

with the following two paragraphs:

Processes in which there is a direct or indirect qualitative or quantitative measurement or test of a material which contains enzymes, nucleic acids or microorganisms .

Processes in which a material containing enzymes, nucleic acids or microorganisms is used to perform a qualitative or quantitative measurement or test, e.g. testing for antimicrobial activity or cholesterol, geomicrobiological testing.

Replace: The current 3rd paragraph

"Compositions or test papers containing…the testing of blood sugar."

with the following paragraph:

Compositions or test papers containing enzymes, nucleic acids or microorganisms which can be used to detect or identify a chemical compound or composition, e.g. paper strips for the testing of blood sugar.

Replace: The current 4th paragraph

"Compositions or test papers distinguished…of microorganisms or enzymes."

with the following paragraph:

> Compositions or test papers distinguished by the use of indicators which can be used to detect or identify the presence of enzymes, nucleic acids or microorganisms.

Relationships with other classification places

Replace: The two instances of the term “groups” in the 2nd paragraph

“In groups C12M-C12Q… in the last appropriate place”

with the term “subclasses”.

Replace: The third paragraph “The codes of group C12R are …processes classified in these groups”

with the following:

> The codes of subclass C12R are only for use as Indexing codes associated with subclasses C12C - C12Q, so as to provide information concerning the microorganisms used in the processes classified in these subclasses.

References:

Limiting references

This place does not cover:

Delete: The following three references from the Limiting references table.

Measuring or testing apparatus with condition measuring or sensing means, e.g. colony counters	C12M 1/34
Apparatus for condition-responsive control processes	C12M 1/36
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

Informative references

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

Delete: The following reference from the Informative references table.

Investigating or analysing biological material	G01N 33/48 - G01N 33/98

Special rules of classification

Delete: All the paragraphs in the Special rules section.

Insert: The following new paragraphs in the Special rules section.

In this subclass, in absence of an indication to the contrary, classification is made in the last appropriate place.

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

In this subclass, viruses, undifferentiated human, animal or plant cells, protozoa, tissues and unicellular algae are considered as microorganisms.

In this subclass, unless specifically provided for, undifferentiated human, animal or plant cells, protozoa, tissues and unicellular algae are classified together with microorganisms. Sub-cellular parts, unless specifically provided for, are classified with the whole cell.

Glossary of terms

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

Replace: The first term in each of the following description rows as a Sentenced case, i.e. capitalize the terms “when” and “comprises”:

Involving	when used in relation to a substance, includes the testing for the substance as well as employing the substance as a determinant or reactant in a test for a different substance.
Nucleic acid	comprises nucleic acids as in vitro compounds as well as sub-cellular parts in vivo like chromosome territories within the nucleus, plasmids, gene sequences, genetic information, mutations, polymorphisms such as SNPs, in silico base sequences, aptamers (ligand binding nucleic acids) and ribozymes (catalytic active RNA molecules).

C12Q 1/00

Definition statement

This place covers:

Delete: The first four paragraphs:

"Processes in which … or cholesterol, geomicrobiological testing."

"In vivo or in vitro … range C12Q 1/68 - C12Q 1/708."

"Compositions or test papers … testing of blood sugar."

"Compositions or test papers distinguished …of microorganisms or enzymes."

Replace: With the following five paragraphs:

Processes in which there is a direct or indirect qualitative or quantitative measurement or test of a material which contains enzymes, nucleic acids or microorganisms.

Processes in which a material containing enzymes, nucleic acids or microorganisms is used to perform a qualitative or quantitative measurement or test, e.g. testing for antimicrobial activity or cholesterol, geomicrobiological testing.

In vivo or in vitro or in silico measuring or testing processes involving nucleic acid e.g. nucleic acid hybridisation including Polymerase Chain Reaction [PCR]. See section range C12Q1/68 - C12Q1/708.

Compositions or test papers containing enzymes, nucleic acids or microorganisms which can be used to detect or identify a chemical compound or composition, e.g. paper strips for the testing of blood sugar.

Compositions or test papers distinguished by the use of indicators which can be used to detect or identify the presence of enzymes, nucleic acids or microorganisms.

DO NOT delete the last two paragraphs, i.e.:

Processes of making such test compositions.

Processes involving enzymes…such measurement, i.e. condition responsive control.

References

Limiting references

This place does not cover:

Delete: The following rows from the Limiting references table.

Apparatus for condition-responsive control processes	C12M 1/36
Testing involving animal cells	G01N 33/5005
Testing involving plant cells	G01N 33/5097
Immunoassay	G01N 33/53
Immunoassay with enzyme label	G01N 33/535
Immunoassay with the carrier being a biological cell or cell fragment	G01N 33/554
Immunoassay for microorganisms	G01N 33/569
Immunoassay for plant cells	G01N 33/56961
Immunoassay for animal cells	G01N 33/56966
Immunoassay for venereal diseases	G01N 33/571
Immunoassay for enzymes and isoenzymes	G01N 33/573
Immunoassay for cancer	G01N 33/574

Informative references

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

Insert: The following four rows into the Informative references table.

Apparatus for condition-responsive control processes	C12M 1/36
Testing involving plant cells	G01N 33/5097
Immunoassay for plant cells	G01N 33/56961
Immunoassay for animal cells	G01N 33/56966

Special rules of classification

Delete: The space between the words “self evident” in the fourth paragraph, and insert a hyphen in its place.

Insert: The term “of” after the term “definitions” in the fifth paragraph as shown below:

“… and the rather broad nature of the definitions of some of the C12Q1/001 - C12Q1/66 sub-groups, …”

Delete: The first paragraph from the Special rules.

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

C12Q 1/68

Definition statement

This place covers:

Delete: The space between the words “can not” to form the word “cannot”.

Relationships with other classification places

Replace: The existing two paragraphs:

> The group C12 Q1/00 relates to enzymes. From C12 Q1/68 onwards, assays and products for analysing or detecting nucleic acids are covered irrespective of whether enzymes or microorganisms are involved. C12 Q1/70 similarly relates to nucleic acid assays and products for analysing or detecting viruses or bacteriophages.
>
> Nucleic acid amplification reactions are classified in C12P 19/34 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 C12 Q1/68.

with the following two paragraphs (note the addition of two commas in the 2nd paragraph):

> Group C12Q 1/00 relates to enzymes. From group C12Q 1/68 onwards, assays and products for analysing or detecting nucleic acids are covered irrespective of whether enzymes or microorganisms are involved. Group C12Q 1/70 similarly relates to nucleic acid assays and products for analysing or detecting viruses or bacteriophages.
>
> Nucleic acid amplification reactions are classified in group C12P 19/34 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 group C12Q 1/68.

References

Limiting references

This place does not cover:

Delete: The following two rows from the Limiting references table.

Apparatuses and devices used for the enzymatic analysis of nucleic acids are not classified in	C12Q 1/68 and groups.
Coultier counters	G01N 1/00 - G01N 1/30, G01N 13/00 - G01N 13/04, G01N 15/00 - G01N 15/1484 - G01N 19/00 - G01N 19/10, G01N 35/00 - G01N 35/1097

Informative references

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

Insert: The following new rows into the Informative references table:

Design and fabrication of microarrays (biochips) wherein the invention resides in the synthesis of polypeptides or polynucleotides; Apparatus and devices for combinatorial chemistry or for making molecular arrays.	B01J 19/0046
Microfuidic systems used for nucleic acid analysis like thermal cyclers (PCR-machines), capillary sequencers	B01L 1/00 - B01L 99/00
Chemical synthesis or modification of nucleosides, nucleotides or oligonucleotides (chemically linked to other compounds, fluorescent labels).	C07H 21/00 - C07H 21/04
Introduction of foreign genetic material using vectors; Vectors; Use of hosts therefor; Regulation of expression	C12N 15/63

Introduction of foreign genetic material using processes not otherwise provided for, e.g. co-transformation	C12N 15/8201 - C12N 15/8214
Sensors and electronic devices involving nucleic acids wherein the electrical detection is important	G01N 27/00, G01N 31/00
Sensors and electronic devices wherein the optical detection is important	G01N 31/00
Bioinformatics	G06F 19/10 - G06F 19/28
Computer systems using nucleic acids	G11C 13/0019
Coulter counters	G01N 35/00 - G01N 35/1097

Delete: The following row from the Informative references table:

DNA/RNA encoding protein; preparation by recombinant DNA technology	C12N 15/111 - C12N 15/907

Replace: The symbols C12N15/1003 - C12N15/1017 in the following row with C12N 15/10.

Extraction and purification of nucleic acids from biological samples, e.g. pure separation or isolation methods; Conditions, buffers or apparatuses therefore	C12N 15/1003 - C12N 15/1017

Replace: The entire text in the following row:

Non-coding nucleic acids modulating the expression of genes (e.g. siRNA, miRNA,..); aptamers	C12N 15/11

with the following text:

DNA or RNA fragments; Modified forms thereof

Replace: The symbols range C12N15/70 - C12N15/73 in the following row with C12N 15/70 - C12N 15/78.

Bacterial vectors	C12N 15/70 - C12N 15/73

Delete: The symbol C12N15/64 in the following row.

Animal vectors and their preparation	C12N 15/85, C12N 15/64

Replace: The symbol G01N 33/50 in the following row with G01N 33/68.

Protein diagnostics and detection	G01N 33/50

Special rules of classification

Delete: The term and punctuation (500) in the 3rd statement following the heading Annex 1.

CPC (500) codes:C12Q2500/00 - C12Q2565/60

Delete: The following row from the table immediately following the statement "Method classes."

C12Q 1/68	involving nucleic acids, general aspects

Delete: The term "500" immediately following the term CPC (there are 3 instances) in paragraphs 1.2 and 1.3.

1.2 Use of CPC500 codes is restricted to the C-set format and only in combination with the method classes (see above). This means that the use of CPC500 codes in C-sets where the base class is a analyte/product class (see above) is not allowed.

1.3 During classification, after allocation of an appropriate base class, such as C12Q 1/6827, a CPC500 indexing code describing the essential technical features of the invention can be added to the base class in a C-set.

Delete: All paragraphs and table following, and including, paragraph "1.8 Examples", to paragraph, but not including, Annex 2:.

Delete: The term and punctuation (600) in the 2nd statement following the heading Annex 2.

CPC (600) codes: C12Q 2600/00 - C12Q 2600/178

Delete: The term "ICO" in paragraphs 1.1.1 and 1.1.3 located under the Annex 2 section.

1.1.1 The use of the C12Q 2600/00 ICO codes is restricted to the nucleic acid product classes in the range C12Q 1/68 - C12Q 1/70:

1.1.3 The use of the C12Q 2600/00 ICO codes is compulsory. They should be given if the claims and/or examples support a functional use as given by any of the C12Q 2600/00 CPC codes shown above.

Delete: The terms "CPC" in paragraph 1.1.2 located under the Annex 2 section (there are 2 instances of the term CPC).

1.1.2 The C12Q 2600/00 CPC codes are given as independent CPC codes and are not used in a C-set

Insert: A period at the end of paragraph 1.1.2

Replace: The paragraph number designation "a)" in the 1st paragraph following the header 1.2 Examples:

with the number designation “1)”.

Replace: The terms “EC class” in the 2nd paragraph following the header 1.2 Examples:

The EC class for this application would be C12Q 1/6883.

with the terms “CPC code”.

Insert: The term “CPC” before the word “code” in the 3rd paragraph following the header 1.2 Examples (as shown below):

The methods for determining these polymorphisms are trivial but adding the CPC code C12Q 2600/156 (polymorphic marker) will aid in retrieving the pertinent information of this application.

Delete: The entire 4th paragraph:

In search, the combination of C12Q 1/6883, C12Q 2600/156, and keywords will directly lead to the most relevant documents.

Insert: A comma after the group symbol C12Q 1/6883 in the header line (as shown below):

C12Q 1/6883, C12Q 2600/156

Replace: The terms “EC class” in the paragraph following the header line C12Q 1/6883, C12Q 2600/156:

The EC class for this application would be C12Q 1/6883.

with the terms “CPC code”.

Insert: The term “CPC” before “code C12Q 2600/158” in the 2nd paragraph following the header line C12Q 1/6883, C12Q 2600/156 (as shown below):

The methods for determining the expression level are trivial but adding the CPC code C12Q 2600/158 (expression marker) will aid in retrieving the pertinent information of this application.

Delete: The entire 3rd paragraph following the header line C12Q 1/6883, C12Q 2600/156.

In search, the combination of C12Q1/6883, C12Q 2600/158, and keywords will directly lead to the most relevant documents.

Insert: A comma after the group symbol C12Q 1/6883 in the header line (as shown below):

C12Q 1/6883, C12Q 2600/158

Replace: The terms “EC class” in the 2nd paragraph following the header line C12Q 1/6883, C12Q 2600/158 (as shown below):

The EC class for this application would be C12Q 1/6886.

with the terms “CPC code”.

Insert: The term “CPC” before “code C12Q 2600/106” in the 4th paragraph following the header line C12Q 1/6883, C12Q 2600/158 (as shown below):

In addition, the application relates to pharmacogenomics. If the application provides support for this claim, the CPC code C12Q 2600/106 is given. If no support is present, only the code for polymorphic marker is given.

Replace: The text "bacteriphage” in the following table row with "bacteriophage”

C12Q 1/70	involving virus or bacteriphage

Replace: The terms “EC class” in the 2nd paragraph following the header 2.2 Examples of use:

> The EC class for this application would be C12Q 1/689 for the bacterial detection probes.

with the terms “CPC group”.

C12Q 1/6804

Definition statement

This place covers:

Replace: The entire existing paragraph
“All applications where… and immunogens. (e.g.. immune PCR)”

with the following new paragraph:

> Applications characterised by immunological compounds which are used in the analysis of nucleic acids. This group also includes applications characterised by nucleic acids which are used for analysing or detecting proteins and immunogens, e.g. immuno PCR).

References

Limiting references

This place does not cover:

Delete: The following row from the Limiting references table.

Antibodies	C07K 16/00

Replace: The entire description/text for reference G01N 33/53 with:

Immunoassay	G01N 33/53

Informative references

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

Delete: The following row from the Informative references table.

Immunoassays	G01N 33/53

Insert: The following row into the Informative references table.

Antibodies	C07K 16/00

Special rules of classification

Replace: The entire 2nd and 3rd paragraphs in the Special rules section:

> Documents in which an immunological reaction … is subsequently detected immunologically.
>
> Also classified in this subgroup are … appropriate subgroup of G01N 33/50 and allocated the G01N 2458/10 symbol.

with the following new paragraphs:

> Documents characterised by an immunological reaction which 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 group are documents characterised by the immunological reaction which 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 G01N 33/50 and allocated the G01N 2458/10 symbol.

C12Q 1/6806

Definition statement

This place covers:

Replace: The statement within the parenthesis

(e.g.. amplification techniques (PCR), hybridisation techniques, sequencing of nucleic acids,...)

with the following new expression (the period should be outside of parenthesis):

(e.g. amplification techniques (PCR), hybridisation techniques, sequencing of nucleic acids).

References

Informative references

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

Insert: The following new rows (*from the Limiting references section*) into a new Informative references section and table.

Extracting or separating nucleic acids from biological samples, e.g. pure separation or isolation methods; Conditions, buffers or apparatuses therefore	C12N 15/1003
Extracting or separating nucleic acids from biological samples by means of a solid support carrier, e.g. particles, polymers	C12N 15/1006
Extracting or separating nucleic acids from biological samples by chromatography, e.g. electrophoresis, ion-exchange, reverse phase	C12N 15/101
Extracting or separating nucleic acids from biological samples by using magnetic beads	C12N 15/1013
Extracting or separating nucleic acids from biological samples by filtration, e.g. using filters, frits, membranes	C12N 15/1017

Limiting references:

This place does not cover:

Delete: All the existing table rows in the Limiting references table.

Insert: The following new row into the Limiting references table.

Nucleic acid analysis using immunogens	C12Q 1/6804

C12Q 1/6809

Definition statement

This place covers:

Replace: The term “document” in the paragraph with the term “documents”.

All document where the invention … use of the products identified.

References

Informative references

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

Insert: The following new row (*from the Limiting references section*) into a new Informative references section and table.

The screening and making of libraries (e.g. cDNA libraries)	C12N 15/1072

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table

C12Q 1/6816

Definition statement

This place covers:

Replace: The existing paragraphs with the following new paragraph.

Applications dealing with the detection of hybridisation assays characterised by the detection means.

Insert: The following new reference into a new Limiting references section and table.

References

Limiting references

This place does not cover:

Nucleic acid analysis using immunogens	C12Q 1/6804

C12Q 1/6818

Definition statement

This place covers:

Replace: The first term “all” in the existing definition paragraph with “All”.

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

Relationships with other classification places

The use of this detection principle in non-hybridisation based techniques such as nucleic acid amplification in group C12Q 1/6844 or sequencing in group C12Q 1/6869 are not covered by C12Q 1/6818 unless the invention resides in an improvement which has general applicability also for hybridisation assays (for instance an improved Taqman probe). In this case, both C12Q 1/6818 and an amplification or sequencing group can be given.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section.

C12Q 1/682

Definition statement

This place covers:

Replace: The first portion of the definition statement

"all applications where the detection signal generated in a hybridisation reaction is amplified"

with the following:

"All applications where the detection signal generated in an hybridisation reaction is amplified"

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

Relationships with other classification places

Amplification of target nucleic acids as such wherein the target amplification results in an increase of signal which is not seen as signal amplification and is not classified in C12Q 1/682.

Electronic signal amplification is not classified in group C12Q 1/682.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section.

C12Q 1/6823

Definition statement

This place covers:

Replace: The first term “all” in the existing definition paragraph with “All”.

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

Relationships with other classification places

The use of this detection principle in non-hybridisation based techniques such as nucleic acid amplification in group C12Q 1/6844 or sequencing in group C12Q 1/6869 are not covered by group C12Q 1/6823 unless the invention resides in an improvement which has general applicability also for hybridisation assays. In this case both C12Q 1/6823 and an amplification or sequencing group can be given.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section.

C12Q 1/6825

Definition statement

This place covers:

Replace: The first term “all” in the existing definition paragraph with “All”.

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

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

Sensors and electronic devices involving nucleic acids wherein the electrical detection is important	G01N 27/00
Sensors wherein the optical detection is important	G01N 21/00

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6827

Definition statement

This place covers:

Replace: The existing definition paragraph with the following:

All methods dealing with the detection of polymorphisms using an hybridisation assay and which cannot be classified in group C12Q 1/683. The detection of methylation and splice variants is seen as polymorphism detection and therefore classified in this group if the detection principle is based on an hybridisation assay.

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

Relationships with other classification places

The detection of polymorphisms using amplification based techniques is classified in group C12Q 1/6858. The use of allele specific primer extension is covered by group C12Q 1/6858 and not C12Q 1/6827.

See Annex 1 under the "Special rules" section of C12Q 1/68.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

Application-oriented references

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

Delete: The entire Application-oriented references section and table.

Informative references

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

Insert: The following new row (*from the Application-oriented references section*) into the Informative references table.

Sequence identification involving differential detection	C12Q 1/6809

Replace: The existing text for the following reference with the following new text.

Allele specific amplification; The detection of polymorphisms using amplification based techniques	C12Q 1/6858

Special rules of classification

Delete: The entire Special rules of classification section.

C12Q 1/6832

Definition statement

This place covers:

Replace: The existing definition paragraph with the following:

All applications dealing with the enhancement of the binding between a target and its probe, e.g. use of special buffer components, temperatures, probe modifications.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

Informative references

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

Insert: The following new row into the Informative references table.

Increasing the specificity or sensitivity of an amplification reaction	C12Q 1/6848

C12Q 1/6834

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Design and fabrication of microarrays (biochips) wherein the invention resides in the synthesis of polypeptides or polynucleotides; Apparatus and devices for combinatorial chemistry or for making molecular arrays.	B01J 19/00
Chemical synthesis or modification of nucleosides, nucleotides or oligonucleotides, chemically linked to other compounds (fluorescent labels)	C07H 21/00 - C07H 21/04

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6837

Definition statement

This place covers:

Replace: The existing definition paragraph with the following:

All nucleic acid analysis methods which depend on the use of probe arrays (biochips, microarray). If the use of the array is in the context of a method which can be classified in another group of the hybridisation based assays, e.g. C12Q 1/6813, the classifier has to decide based on the relevance of the method to classify the application in either one of these groups or even to classify the application in both groups if necessary. However, if the use is for sequencing then the application is only classified in group C12Q 1/6874.

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Design and fabrication of microarrays (biochips) wherein the invention resides in the synthesis of polypeptides or polynucleotides; Apparatus and devices for combinatorial chemistry or for making molecular arrays.	B01J 19/00
Chemical synthesis or modification of nucleosides, nucleotides or oligonucleotides, chemically linked to other compounds (fluorescent labels)	C07H 21/00 - C07H 21/04

Limiting references

This place does not cover:

Delete: The existing two references from the Limiting references table.

Insert: The following new row into the Limiting references table.

Involving nucleic acid arrays, e.g. sequencing by hybridisation [SBH]	C12Q 1/6874

C12Q 1/6841

Definition statement

This place covers:

Replace: The existing definition paragraph with the following:

All applications dealing with methods for the analysis of a nucleic acid in a cell or positionally in a chromosome like Fluorescent In Situ Hybridisation [FISH].

C12Q 1/6844

Definition statement

This place covers:

Replace: The existing definition paragraph with the following:

All amplification methods which do not belong in any of the amplification groups. Generally, amplification techniques which use a mechanism for amplifying nucleic acids and for which no group exists are classified in group C12Q 1/6844. An example of such an amplification technique is strand displacement amplification [SDA].

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Chemical synthesis of oligonucleotides	C07H 21/00
Microfuidic systems used for nucleic acid analysis like thermal cyclers (PCR-machines), capillary sequencers.	B01L 1/00 - B01L 99/00

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6848

Definition statement

This place covers:

Replace: The existing definition paragraph with the following paragraphs:

Methods for preventing contamination in an amplification reaction such as the use of wax barriers, containers, uracil glycosylase, hot start and nested PCR. In addition, all methods relating to increasing the specificity or sensitivity of an amplification reaction are classified in this group.

This group also covers means for reducing false positive or false negative signals in an amplification reaction.

These include the use of modified nucleotides, e.g. in amplification reactions designed for amplifying GC-rich templates, special buffer components, pH, reaction conditions, etc.

If the method is designed for a specific amplification technique like PCR in group C12Q 1/686, then it is both classified in the specific amplification group, i.e. C12Q 1/686, and in C12Q 1/6848.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

Insert: The following new rows into a new Informative references section and table.

Informative references

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

Methods for preventing contamination before an amplification reaction	C12Q 1/6806
Enhancement of hybridisation reactions	C12Q 1/6832

C12Q 1/6851

Definition statement

This place covers:

Replace: The first term “methods” in the existing definition paragraph with “Methods”.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6855

Definition statement

This place covers:

Replace: The first term “methods” in the existing definition paragraph with “Methods”.

C12Q 1/6858

Definition statement

This place covers:

Replace: The first term “all” in the existing definition paragraph with “All”.

References

Insert: The following new rows (*from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Hybridisation based polymorphism detection	C12Q 1/6827
Hybridisation based polymorphism detection involving restriction enzymes	C12Q 1/683
Sequencing	C12Q 1/6869

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6869

Definition statement

This place covers:

Replace: The existing definition paragraph with the following paragraphs:

All nucleic acid sequencing methods which cannot be classified in the subgroups for sequencing using mass spectrometry, i.e. in group C12Q 1/6872 and sequencing using solid surfaces, i.e. in group C12Q 1/6874. This group also covers methods for sequencing using nanopores and other sequencing systems based on physical properties of nucleic acids, e.g. Atomic Force Microscopy [AFM].

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Microfuidic systems used for nucleic acid analysis like thermal cyclers (PCR-machines), capillary sequencers	B01L 1/00 - B01L 99/00
Allele specific primer extension	C12Q 1/6858
Apparatus for sequencing using nanopores or nanochannels	G01N 33/48721

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6876

Definition statement

This place covers:

Replace: The existing definition paragraph with the following paragraph:

All nucleic acid products used in the analysis of nucleic acids (e.g. primers, probes, controls) which cannot be classified in any of the subgroups C12Q 1/6879 - C12Q 1/6895. If an application relates both to methods and nucleic acid products, than these applications are classified in both the appropriate method and product subgroups.

References

Insert: The following new rows (*partially from the Limiting references section*) into a new Informative references section and table.

Informative references

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

Differential detection	C12Q 1/6809
Polymorphism detection by hybridisation	C12Q 1/6827
Allele specific amplification	C12Q 1/6858
Probes and primers for the detection of viruses and bacteriophages	C12Q 1/70
Virus antigen in a vaccine	A61K 39/12
Modified nucleosides, nucleotides	C07H 21/00
Bacterial and fungal antigens	C07K 14/195 - C07K 14/40
Protozoal antigens	C07K 14/44 - C07K 14/455
Antibodies	C07K 16/00
Virus, Bacteriophages	C12N 7/00
DNA or RNA fragments; Modified forms thereof	C12N 15/11

Bacterial vectors	C12N 15/70 - C12N 15/78
Vectors for fungal cells	C12N 15/80 - C12N 15/815
Animal vectors and their preparation	C12N 15/85
Bacterial, fungal and protozoan enzymes	C12N 9/00

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

C12Q 1/6883

Definition statement

This place covers:

Replace: The existing definition paragraph with the following paragraph:

All nucleic acid based diagnostic products. Those include both products for detecting the alterations (polymorphisms including methylation and splice variants) of genetic material and for detecting differential expression of a disease gene. If an application also discloses methods for detecting such polymorphisms or differential expression, the classifier should decide based on the relevance of this method to classify the application also in the appropriate method groups, e.g. C12Q 1/6827, C12Q 1/683, C12Q 1/6858, or C12Q 1/6809.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

Informative references

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

Insert: The following new row into the Informative references table.

Primers and probes for cancer assays	C12Q 1/6886

C12Q 1/6886

Definition statement

This place covers:

Replace: The first term “all” in the existing definition paragraph with “All”.

References

Limiting references

This place does not cover:

Replace: The symbol for reference G01N 33/53 with G01N 33/574:

Cancer diagnostic immunoassays	G01N 33/53

Informative references

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

Delete: The entire Informative references section and table.

C12Q 1/6897

Definition statement

This place covers:

Replace: The existing definition paragraph with the following paragraph:

All methods which use the detection of reporter genes operably linked to promoters for screening and nucleic acid analysis.

References

Limiting references

This place does not cover:

Delete: The entire Limiting references section and table.

Insert: The following new rows into a new Informative references section and table.

Informative references

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

Preparation or screening of expression libraries, e.g. reporter assays	C12N 15/10
If the screening or the analysis focuses on protein interaction, expression or activity	G01N 33/5008