

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1243

DATE: JANUARY 1, 2022

PROJECT MP0517

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Titles Changed:	C07K	14/145
	C30B	Subclass
		13/20, 13/28
		29/00
		31/18
		33/00
	G01N	2333/145
	H01S	5/02335
Notes Modified:	C04B	38/00
DEFINITIONS:		
Definitions New:	C30B	13/20, 13/28
		31/18
		33/00
Definitions Modified:	C30B	Subclass
		29/00

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(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)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS C07K- Peptides

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to#</u>
M	C07K 14/145	3	Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokola virus or vesicular stomatitis virus	

SUBCLASS C30B - SINGLE-CRYSTAL-GROWTH (by using ultra-high pressure, e.g. for the formation of diamonds B01J3/06); UNIDIRECTIONAL SOLIDIFICATION OF EUTECTIC MATERIAL OR UNIDIRECTIONAL DEMIXING OF EUTECTOID MATERIAL; REFINING BY ZONE-MELTING OF MATERIAL (zone-refining of metals or alloys C22B); PRODUCTION OF A HOMOGENEOUS POLYCRYSTALLINE MATERIAL WITH DEFINED STRUCTURE (casting of metals, casting of other substances by the same processes or devices B22D; working of plastics B29; modifying the physical structure of metals or alloys C21D, C22F); SINGLE CRYSTALS OR HOMOGENEOUS POLYCRYSTALLINE MATERIAL WITH DEFINED STRUCTURE; AFTER-TREATMENT OF SINGLE CRYSTALS OR A HOMOGENEOUS POLYCRYSTALLINE MATERIAL WITH DEFINED STRUCTURE (for producing semiconductor devices or parts thereof H01L); APPARATUS THEREFOR

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to#</u>
M	C30B	Subclass	SINGLE-CRYSTAL GROWTH (by using ultra-high pressure, e.g. for the formation of diamonds, B01J 3/06); UNIDIRECTIONAL SOLIDIFICATION OF EUTECTIC MATERIAL OR UNIDIRECTIONAL DEMIXING OF EUTECTOID MATERIAL; REFINING BY ZONE-MELTING OF MATERIAL (zone-refining of metals or alloys C22B); PRODUCTION OF A HOMOGENEOUS POLYCRYSTALLINE MATERIAL WITH DEFINED STRUCTURE (casting of metals, casting of other substances by the same processes or devices B22D; working of plastics B29; modifying the physical structure of metals or alloys C21D, C22F); SINGLE CRYSTALS OR HOMOGENEOUS POLYCRYSTALLINE	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to#</u>
			MATERIAL WITH DEFINED STRUCTURE; AFTER-TREATMENT OF SINGLE CRYSTALS OR A HOMOGENEOUS POLYCRYSTALLINE MATERIAL WITH DEFINED STRUCTURE (for producing semiconductor devices or parts thereof H01L); APPARATUS THEREFOR	
M	C30B 13/20	2	by induction, e.g. hot wire technique (C30B 13/18 takes precedence)	
M	C30B 13/28	1	Controlling or regulating	
M	C30B 29/00	0	Single crystals or homogeneous polycrystalline material with defined structure characterised by the material or by their shape	
M	C30B 31/18	2	Controlling or regulating	
M	C30B 33/00	0	After-treatment of single crystals or homogeneous polycrystalline material with defined structure (C30B 31/00 takes precedence)	

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

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to#</u>
M	G01N 2333/145	3	Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokola virus or vesicular stomatitis virus	

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SUBCLASS H01S - DEVICES USING THE PROCESS OF LIGHT AMPLIFICATION BY STIMULATED EMISSION OF RADIATION [LASER] TO AMPLIFY OR GENERATE LIGHT; DEVICES USING STIMULATED EMISSION OF ELECTROMAGNETIC RADIATION IN WAVE RANGES OTHER THAN OPTICAL

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to#</u>
M	H01S 5/02335	4	Up-side up mountings, e.g. epi-side up mountings or junction up mountings	

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

NOTES:

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

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C. New, Modified or Deleted Note(s)

SUBCLASS C04B - LIME, MAGNESIA; SLAG; CEMENTS; COMPOSITIONS THEREOF, e.g. MORTARS, CONCRETE OR LIKE BUILDING MATERIALS; ARTIFICIAL STONE { (roofing granules E04D7/005)}; CERAMICS (devitrified glass-ceramics C03C10/00); REFRACTORIES; TREATMENT OF NATURAL STONE

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
M	C04B 38/00	Porous materials based on fibres, i.e. materials where the porosity is due to the spaces between the fibres, are not classified in this main group, but in one or more of the other relevant main groups of this subclass, e.g. in C04B 30/02	<ol style="list-style-type: none"> 1. Porous mortars, concrete, artificial stone or ceramic ware characterised by the ingredients or compositions are also classified in groups C04B 2/00 - C04B 35/00. 2. {Porous materials based on fibres, i.e. materials where the porosity is due to the spaces between the fibres, are not classified in this main group, but in one or more of the other relevant main groups of this subclass, e.g. in C04B 30/02. }

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

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

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2. A. DEFINITIONS (New)

C30B13/20

References:

Limiting references:

This place does not cover:

The heating element being in contact with, or immersed in, the molten zone	C30B13/18
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Informative references:

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

Induction coils	H05B 6/36
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C30B13/28

References:

Informative references:

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

Controlling or regulating in general	G05
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C30B31/18

References:

Informative references:

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

Controlling or regulating in general	G05
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C30B33/00

References:

Limiting references:

This place does not cover:

Diffusion or doping processes for single crystals or homogeneous polycrystalline material with defined structure; Apparatus therefor	C30B31/00
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Informative references:

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

Grinding, polishing	B24
Mechanical fine working of gems, jewels, crystals	B28D 5/00

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2. A. DEFINITIONS (modified)**C30B****References****Informative references**

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

Working of plastics	B29
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Special rules of classification

Replace: The existing Special rules of classification with the updated text below:

- Reference B29 is non-limiting in the subclass C30B. CPC title will be updated/corrected once this inconsistency is resolved in IPC.
- Patent and non-patent documents describing the growth of single crystals/homogenous polycrystalline material with defined structure are classified according to the method/apparatus used and the chemical and physical nature of the grown crystal.
- Patent documents often list whole series of materials which can be grown as crystals. The classifier should provide the appropriate classification symbol under [C30B 29/00](#) for those materials grown as crystals in the examples and any mentioned in the claims. Where a whole series is mentioned without emphasis on one particular material, for example GaAs, GaInAs, InAs, GaAlAs, GaN, InN, AlN etc., the classifier should try to identify the most appropriate classification(s) covering the families of materials mentioned. In this case [C30B 29/40](#) and [C30B 29/403](#) would be appropriate and sufficient.
- Mere references to "crystals" or "single crystals" in a document in the absence of other details do not lead to a classification in [C30B](#). For example a reference to a "Czochralski grown silicon single crystal" in the description of a substrate used for a semiconductor device is not sufficient for requiring a classification in [C30B](#). If, however, the reference includes further details about the chemical/physical properties of the crystal and these do not seem trivial then the classifier should give the appropriate [C30B](#) classification. Documents referring to the synthesis of chemical compounds which also mention crystallographic results for the solid are not normally classified in [C30B](#) unless there is emphasis on the crystal growing technique.

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- Concerning the circulation of documents to other fields by giving symbols of the other fields, most patents concerning crystal growth mention to different degrees of emphasis the applications where the grown crystal are to be used. Where there is a specific reference to a particular device or application using the crystal then the document should be circulated to that field. For example, a document mentioning the fabrication of a particular type of transistor using the grown crystal, then the document should be circulated to the semiconductor field (H01L).
- Concerning vapour phase epitaxial growth apparatus, the search should always consult the relevant groups in C23C where such apparatuses are also classified. Epitaxial growth is dependent primarily on process parameters and substrate, an apparatus used for "epitaxial growth" in the overwhelming majority of cases the same apparatus can be used for providing non-epitaxial coatings. Documents concerning apparatus features in these processes should also be classified in C23C 14/00 and C23C 16/00.

Glossary of terms

Replace: In the second column, the leading letters in each of the following entries need to be capitalized, so the corrected entries read as follows:

Twin crystal	A crystalline material in which the adjoining crystalline lattices have a mirror-image symmetrical relationship, the interface between the adjoining crystals being termed the twin plane.
Zone melting	Description of a process in which a crystallized body is formed by melting a zone of a starting material with subsequent cooling and crystallisation while either the zone or the starting product is displaced so that all or part of the starting material is converted into the crystallized body.
Grains	Crystalline regions in a solid material, each grain generally being a single crystalline region.
Whiskers/needles	Discrete solid crystalline particles of generally elongated shape. Dimensions are superior to 100 nm and are not considered as nanocrystals (nanowires, nanorods etc.)
Bulk/layer	Bulk crystals have dimensions which are comparable in all three dimensions whereas layers have one dimension (thickness) significantly less than the other two dimensions (surface area). For thick layers the distinction may not be always evident and a certain degree of double classification is unavoidable. Often a

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	bulk layer is grown from a discrete "seed" whereas a layer is grown epitaxially on a substrate.
Nanocrystals	Single crystals having at least one dimension less than 100 nm. The term includes nanowires, nanotubes, nanorods etc.

C30B29/00

References

Informative references

Insert: A new Informative references section and table.

Alloys	C22C
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