EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 522

DATE: MAY 1, 2018

PROJECT MP0348

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

| **Action** | **Subclass** | **Group(s)** |
|---|---|---|
| **Title wording change:** | G21H | SUBCLASS |
| | G21H | 1/04, 1/08, 1/10 |
| | G21H | 3/00, 3/02 |
| | G21H | 5/00, 5/02 |
| | | |
| **New Definitions:** | G21H | 1/04, 1/06, 1/08, 1/10 |
| | G21H | 3/02 |
| | G21H | 5/02 |
| | | |
| **Modified Definitions:** | G21H | SUBCLASS |
| | G21H | 3/00 |
| | G21H | 5/00 |

**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)

CPC NOTICE OF CHANGES 522

DATE: MAY 1, 2018

PROJECT MP0348

1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

**SUBCLASS G21H - OBTAINING ENERGY FROM RADIOACTIVE SOURCES; APPLICATIONS OF RADIATION FROM RADIOACTIVE SOURCES; UTILISING COSMIC RADIATION**

| **Type*** | **Symbol** | **Indent Level Number of dots (e.g. 0, 1, 2)** | **Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**** | **Transferred to#** |
|---|---|---|---|---|
| M | G21H | SUBCLASS | OBTAINING ENERGY FROM RADIOACTIVE SOURCES; APPLICATIONS OF RADIATION FROM RADIOACTIVE SOURCES, NOT OTHERWISE PROVIDED FOR; UTILISING COSMIC RADIATION (measurement of nuclear or X-radiation G01T; fusion reactors G21B; nuclear reactors G21C; lamps in which a gas filling is excited to luminescence by external corpuscular radiation or by radioactive material structurally associated with the lamp H01J 65/04, H01J 65/06) | |
| M | G21H 1/04 | 1 | Cells using secondary emission induced by alpha radiation, beta radiation, or gamma radiation | |
| M | G21H 1/08 | 1 | Cells in which radiation ionises a gas in the presence of a junction of two dissimilar metals, i.e. contact potential difference cells | |
| M | G21H 1/10 | 1 | Cells in which radiation heats a thermoelectric junction or a thermionic converter | |
| M | G21H 3/00 | 0 | Arrangements for direct conversion of radiation energy from radioactive sources into forms of energy other than electric energy, e.g. {into} light {or mechanic energy} | |
| M | G21H 3/02 | 1 | in which material is excited to luminesce by the radiation (lamps in which a gas filling or screen or coating is excited to luminesce by radioactive material structurally associated with the lamp H01J65/00 ) | |
| M | G21H 5/00 | 0 | Applications of radiation from radioactive sources or arrangements therefor, not otherwise provided for | |
| M | G21H 5/02 | 1 | as tracers | |

*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; E= 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:

CPC NOTICE OF CHANGES 522

DATE: MAY 1, 2018

PROJECT MP0348

- **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).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. 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 except "D" which requires only a symbol.
- #"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>" or "<administrative transfer to XX and YY simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be "invention information", unless otherwise indicated, and to 2000 series groups is assumed to be "additional information".

# 2. A. DEFINITIONS (new)

Insert the following new definitions.

## G21H 1/04

### References

#### *Informative references*

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

| | |
|---|---|
| Photoelectric discharge tubes not involving the ionisation of a gas | H01J 40/00 |
| Discharge tubes functioning as thermionic generators | H01J 45/00 |
| Tubes for determining the presence, intensity, density or energy of radiation or particles | H01J 47/00 |

## G21H 1/06

### References

#### *Informative references*

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

| | |
|---|---|
| Devices of the surface barrier or shallow PN junction detector type, e.g. surface barrier alpha-particle detectors | H01L 31/118 |

# G21H 1/08

## References

### *Informative references*

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

| | |
|---|---|
| Electric discharge tubes or discharge lamps | H01J |

# G21H 1/10

## Definition statement

*This place covers:*

Cells in which radiation of disintegration heat heats a thermoelectric junction or a thermionic converter

## References

### *Informative references*

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

| | |
|---|---|
| Devices where heating occurs from fission reactions | G21C 3/04 |
| Discharge tubes functioning as thermionic generators | H01J 45/00 |
| Thermoelectric devices comprising a junction of dissimilar materials | H01L 35/00 |

# G21H 3/02

## References

### Limiting references

*This place does not cover:*

| | |
|---|---|
| lamps in which a gas filling or screen or coating is excited to luminesce by radioactive material structurally associated with the lamp | H01J 65/00 |

## Informative references

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

| | |
|---|---|
| Luminescent substances containing radioactive material | C09K 11/04 |

# G21H 5/02

## References

### *Application oriented references*

| | |
|---|---|
| Medicinal preparations containing radioactive substances | A61K 51/00 |

### *Informative references*

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

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

# 2. A. DEFINITIONS (modified)

## G21H

### Definition statement

*This place covers:*

Insert: After the word “therefor” in the existing third statement below

> Applications of radiation from radioactive sources or arrangements therefor.

the following punctuation and text:

> , not otherwise provided for.

### References

Insert: The following two new rows into the **Limiting references** table.

***Limiting references***

*This place does not cover:*

| | |
|---|---|
| Measurement of nuclear or X-radiation | G01T |
| Lamps in which a gas filling is excited to luminescence by external corpuscular radiation or by radioactive material structurally associated with the lamp | H01J 65/04, H01J 65/06 |

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

| | |
|---|---|
| Techniques for handling particles or electromagnetic radiation not otherwise provided for; irradiation devices, gamma- or X-ray microscopes | G21K |
| Electric discharge tubes or discharge lamps | H01J |
| Apparatus for generating ions to be introduced into non-enclosed gasses, e.g. into the atmosphere | H01T 23/00 |

CPC NOTICE OF CHANGES 522

DATE: MAY 1, 2018

PROJECT MP0348

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

***Informative references***

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

| | |
|---|---|
| Preservation of milk or milk preparations in general, of cream, butter, and cheese | A23C 3/00, A23C 13/08, A23C 15/18, A23C 19/097 |
| Introduction of isotopes of elements into organic compounds | C07B 59/00 |
| Techniques for handling particles or ionising radiation not otherwise provided for | G21K 1/00 - G21K 4/00 |
| Lasers | H01S 3/00 |

Delete: The following row from the **Informative references** table.

| | |
|---|---|
| Measurement of nuclear or X-radiation | G01T |

## G21H 3/00

## References:

Insert: The following new **Informative references** section/table.

***Informative references***

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

| | |
|---|---|
| Lasers | H01S 3/00 |
| Lasers pumped by high energy nuclear particles | H01S 3/0957 |
| Gamma masers | H01S 4/00 |

Delete: The existing **Limiting references** section and table.

# G21H 5/00

## References

Insert: The following new **References out of a residual place** section/table.

### References out of a residual place

*Examples of places in relation to which this place is residual:*

| | |
|---|---|
| Use of radiation to produce mutations in plants | A01H 1/06 |
| Preserving finished bakery products; improving by irradiation | A21D 15/06 |
| Preservation of meat, sausages, fish, eggs, fruit, vegetables or edible seeds by irradiation causing heating effect | A23B 4/01, A23B 5/01, A23B 7/01, A23B 9/04 |
| Preservation of meat, sausages, fish, eggs, fruit, vegetables or edible seeds by irradiation without heating effect | A23B 4/015, A23B 5/015, A23B 7/015, A23B 9/06 |
| Preservation of milk or milk preparations by irradiation | A23C 3/07 |
| Preservation of food or foodstuffs or non-alcoholic beverages by irradiation without heating | A23L 2/50, A23L 3/26 |
| Medicinal preparations obtained by treating materials with wave energy or particle radiation | A61K 41/00 |
| Preparations containing radioactive substances for use in therapy or testing in vivo | A61K 51/00 |
| Methods or apparatus using radiation for disinfecting or sterilising materials or objects other than foodstuffs or contact lenses | A61L 2/08 |
| Radiation therapy; therapy using X-rays, gamma rays or particle-irradiation | A61N 5/00, A61N 5/10 |
| Applying radioactive material to the body | A61M 37/00 |

| | |
|---|---|
| Direct application of radiation to physical, chemical or physico-chemical processes in general | B01J 19/08 |
| Use of radiation for separating dispersed particles from gases or vapour, e.g. air, by electrostatic effect | B03C 3/38 |
| Use of radiation for pre-treatment of surfaces to which liquids or other fluent materials are to be applied, or after-treatment of applied coatings | B05D 3/06 |
| Use of radiation in the working of plastics; after-treatment of articles without altering their shape; apparatus therefor | B29C 71/04 |
| Railway trackside devices actuated by radiation and controlled by interaction with a vehicle or train | B61L 1/10 |
| Railway trackside devices using radiation to control devices on a vehicle or train | B61L 3/06 |
| Polymerisation initiated by wave energy or particle radiation; in addition polymers | C08F 2/46,<br>C08F 2/54,<br>C08G 2/02 |
| Processes for treating or compounding macromolecular substances by wave energy or particle radiation | C08J 3/28 |
| Chemical treatment or coating of shaped articles made of macromolecular substances using wave energy or particle radiation | C08J 7/18 |
| Use of radiation for cracking of hydrocarbon oils | C10G 15/10,<br>C10G 32/04 |
| Use of radiation for reforming naphtha | C10G 35/16 |
| Use of radiation for pasteurisation, sterilisation, preservation, purification, clarification or ageing of alcoholic beverages | C12H 1/06,<br>C12H 1/16 |
| Use of radiation for bleaching fibres, threads, yarns, fabrics, feathers, or made-up fibrous goods, leather or furs | D06L 4/50 |
| Measuring angles, areas, length, thickness or similar dimensions, or irregularities of surfaces or contours, using wave or particle radiation | G01B 15/00 |
| Transducers not specially adapted for a specific variable using wave or particle radiation derived from a radioactive source | G01D 5/50,<br>G01D 5/62 |
| Investigating fluid tightness of structures using radioactive material | G01M 3/20 |
| Investigating or analysing materials by the use of wave or particle radiation | G01N 23/00 |
| Investigating or analysing materials through the ionisation of gases, using wave or particle radiation to ionise a gas | G01N 27/64 |
| Chemical analysis of biological material; immunoassay or bio-specific binding assays involving radioactive-labelled substances | G01N 33/534,<br>G01N 33/60 |
| Geophysics; prospecting or detecting using primary nuclear radiation sources | G01V 5/08 |

| | |
|---|---|
| Fire alarms or alarms responsive to explosion, actuated by the presence of smoke or gas detected by an ionisation chamber | G08B 17/11 |
| Irradiation devices | G21K 5/00 |
| Gamma ray or X-ray microscopes | G21K 7/00 |
| In cathode ray tubes, charge-storage screens exhibiting internal electrical effects caused by particle radiation | H01J 29/44 |
| Semiconductor devices sensitive to electro-magnetic or corpuscular radiation | H01L 31/00 |
| Apparatus for generating ions to be introduced into non-enclosed gasses, e.g. into the atmosphere | H01T 23/00 |
| Lasers using pumping by high energy nuclear particles | H01S 3/0957 |
| Carrying off electrostatic charges by means of ionising radiation | H05F 3/06 |

## *Informative references*

Delete: All the rows in the **Informative references** table.

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

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

| | |
|---|---|
| Dairy products, making thereof | A23C |
| Preservation of milk or milk preparations in general, of cream, butter and cheese | A23C 3/00,<br>A23C 13/08,<br>A23C 15/18,<br>A23C 19/097 |
| Introducing isotopes into organic compounds | C07B 59/00 |
| Organic chemistry, applications of radiation for preparation of organic chemical compounds | C07 |
| Measuring | G01 |