

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 678

DATE: MAY 1, 2019

PROJECT RP0292

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

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>SCHEME:</b>		
Symbols Deleted:	H01J	2235/087, 2235/186
Symbols New:	H01J	35/064, 35/066, 35/1017, 35/1024, 35/104, 35/107, 35/112, 35/116, 35/13, 35/147, 35/153, 35/186
Titles Changed:	H01J	35/00, 35/04, 35/06, 35/08, 35/101, 35/103, 35/105, 35/12, 35/14, 35/16, 35/20
Indents Changed:	H01J	35/103
Warnings New:	H01J	35/06, 35/064, 35/066, 35/08, 35/101, 35/1017, 35/105, 35/106, 35/107, 35/112, 35/116, 35/12, 35/13, 35/14, 35/147, 35/153, 35/18, 35/186
<b>DEFINITIONS:</b>		
Definitions Deleted:	H01J	2235/087, 2235/186
Definitions New:	H01J	35/116, 35/186
Definitions Modified:	H01J	35/00, 35/08, 35/106, 35/18

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

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**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 H01J - ELECTRIC DISCHARGE TUBES OR DISCHARGE LAMPS**

<b>Type*</b>	<b>Symbol</b>	<b>Indent Level Number of dots (e.g. 0, 1, 2)</b>	<b>Title “CPC only” text should normally be enclosed in {curly brackets}**</b>	<b>Transferred to<sup>#</sup></b>
M	H01J 35/00	0	X-ray tubes	
M	H01J 35/04	2	Electrodes {; Mutual position thereof; Constructional adaptations therefor}	
C	H01J 35/06	3	Cathodes	H01J 35/06, H01J 35/064, H01J 35/066
N	H01J 35/064	4	{Details of the emitter, e.g. material or structure (H01J 35/065 takes precedence)}	
U	H01J 35/065	4	{Field emission, photo emission or secondary emission cathodes}	
N	H01J 35/066	4	{Details of electron optical components, e.g. cathode cups}	
C	H01J 35/08	3	Anodes; Anti cathodes	H01J 35/08, H01J 35/112, H01J 35/116
U	H01J 35/10	4	Rotary anodes; Arrangements for rotating anodes; Cooling rotary anodes	
C	H01J 35/101	5	{Arrangements for rotating anodes, e.g. supporting means, means for greasing, means for sealing the axle or means for shielding or protecting the driving}	H01J 35/101, H01J 35/1017, H01J 35/1024, H01J 35/104
N	H01J 35/1017	6	{Bearings for rotating anodes}	
N	H01J 35/1024	7	{Rolling bearings}	
M	H01J 35/103	7	{Magnetic bearings}	
N	H01J 35/104	7	{Fluid bearings}	
C	H01J 35/105	5	{Cooling of rotating anodes, e.g. heat emitting layers or structures}	H01J 35/105, H01J 35/107
C	H01J 35/106	6	{Active cooling, e.g. fluid flow, heat pipes}	H01J 35/106, H01J 35/107
N	H01J 35/107	6	{Cooling of the bearing assemblies}	
U	H01J 35/108	5	{Substrates for and bonding of emissive target, e.g. composite structures}	
N	H01J 35/112	4	{Non-rotating anodes (H01J 35/12 takes precedence)}	
N	H01J 35/116	5	{Transmissive anodes (acting as a window H01J 35/186)}	
C	H01J 35/12	4	Cooling non-rotary anodes	H01J 35/12, H01J 35/13

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<b>Type*</b>	<b>Symbol</b>	<b>Indent Level Number of dots (e.g. 0, 1, 2)</b>	<b>Title</b> <b>“CPC only” text should normally be enclosed in {curly brackets}**</b>	<b>Transferred to#</b>
N	H01J 35/13	5	{ Active cooling, e.g. fluid flow, heat pipes }	
C	H01J 35/14	2	Arrangements for concentrating, focusing, or directing the cathode ray	H01J 35/14, H01J 35/147, H01J 35/153
N	H01J 35/147	3	{ Spot size control }	
N	H01J 35/153	3	{ Spot position control }	
M	H01J 35/16	2	Vessels; Containers; Shields associated therewith	
C	H01J 35/18	3	Windows	H01J 35/18, H01J 35/186
N	H01J 35/186	4	{ used as targets or X-ray converters }	
D	H01J 2235/087	3	Transmission type	<administrative transfer to H01J 35/116>
D	H01J 2235/186	2	used as target or X-ray converter, e.g. transmission type	<administrative transfer to H01J 35/186>
M	H01J 35/20	2	Selection of substances for gas fillings; Means for obtaining or maintaining the desired pressure within the tube, e.g. by gettering	

\*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>.

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- 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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B. New, Modified or Deleted Warning(s)

**SUBCLASS H01J - ELECTRIC DISCHARGE TUBES OR DISCHARGE LAMPS**

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H01J 35/06		Group H01J 35/06 is impacted by reclassification into groups H01J 35/064 and H01J 35/066. Groups H01J 35/06, H01J 35/064 and H01J 35/066 should be considered in order to perform a complete search.
N	H01J 35/064		Group H01J 35/064 is incomplete pending reclassification of documents from group H01J 35/06. Groups H01J 35/06 and H01J 35/064 should be considered in order to perform a complete search.
N	H01J 35/066		Group H01J 35/066 is incomplete pending reclassification of documents from group H01J 35/06. Groups H01J 35/06 and H01J 35/066 should be considered in order to perform a complete search.
N	H01J 35/08		Group H01J 35/08 is impacted by reclassification into groups H01J 35/112 and H01J 35/116. Groups H01J 35/08, H01J 35/112 and H01J 35/116 should be considered in order to perform a complete search.
N	H01J 35/101		Group H01J 35/101 is impacted by reclassification into groups H01J 35/1017, H01J 35/1024 and H01J 35/104. All groups listed in this Warning should be considered in order to perform a complete search.
N	H01J 35/1017		Groups H01J 35/1017, H01J 35/1024 and H01J 35/104 are incomplete pending reclassification of documents from group H01J 35/101. Groups H01J 35/101, H01J 35/1017, H01J 35/1024 and H01J 35/104 should be considered in order to perform a complete search.
N	H01J 35/105		Group H01J 35/105 is impacted by reclassification into group H01J 35/107. Groups H01J 35/105 and H01J 35/107 should be considered in order to perform a complete search.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H01J 35/106		Group H01J 35/106 is impacted by reclassification into group H01J 35/107. Groups H01J 35/106 and H01J 35/107 should be considered in order to perform a complete search.
N	H01J 35/107		Group H01J 35/107 is incomplete pending reclassification of documents from groups H01J 35/105 and H01J 35/106. Groups H01J 35/105, H01J 35/106 and H01J 35/107 should be considered in order to perform a complete search.
N	H01J 35/112		Group H01J 35/112 is incomplete pending reclassification of documents from group H01J 35/08. Groups H01J 35/08 and H01J 35/112 should be considered in order to perform a complete search.
N	H01J 35/116		Group H01J 35/116 is incomplete pending reclassification of documents from group H01J 35/08. Groups H01J 35/08 and H01J 35/116 should be considered in order to perform a complete search.
N	H01J 35/12		Group H01J 35/12 is impacted by reclassification into group H01J 35/13. Groups H01J 35/12 and H01J 35/13 should be considered in order to perform a complete search.
N	H01J 35/13		Group H01J 35/13 is incomplete pending reclassification of documents from group H01J 35/12. Groups H01J 35/12 and H01J 35/13 should be considered in order to perform a complete search.
N	H01J 35/14		Group H01J 35/14 is impacted by reclassification into groups H01J 35/147 and H01J 35/153. Groups H01J 35/14, H01J 35/147 and H01J 35/153 should be considered in order to perform a complete search.
N	H01J 35/147		Group H01J 35/147 is incomplete pending reclassification of documents from group H01J 35/14. Groups H01J 35/14 and H01J 35/147 should be considered in order to perform a complete search.

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<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H01J 35/153		Group H01J 35/153 is incomplete pending reclassification of documents from group H01J 35/14. Groups H01J 35/14 and H01J 35/153 should be considered in order to perform a complete search.
N	H01J 35/18		Group H01J 35/18 is impacted by reclassification into group H01J 35/186. Groups H01J 35/18 and H01J 35/186 should be considered in order to perform a complete search.
N	H01J 35/186		Group H01J 35/186 is incomplete pending reclassification of documents from group H01J 35/18. Groups H01J 35/18 and H01J 35/186 should be considered in order to perform a complete search.

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

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



## 2. A. DEFINITIONS (new)

**Insert:** The following new Definitions.

### **H01J 35/116**

#### **Definition statement**

*This place covers:*

Anodes producing X-rays configured such that the fraction passing through the anode can be used.

#### **References**

##### ***Limiting references***

*This place does not cover:*

Anodes which serve as vacuum window or are integrally attached to the vacuum window	<a href="#">H01J 35/186</a>
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## H01J 35/186

### Definition statement

*This place covers:*

X-ray transparent windows used as target or targets integrally attached to a window and used in transmission mode.

### References

#### Informative references

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

Transmission type target anodes not providing vacuum sealing	<a href="#">H01J 35/116</a>
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## 2. B. DEFINITIONS QUICK FIX

<b><u>Symbol</u></b>	<b><u>Location of change</u></b> (e.g., section title)	<b><u>Existing reference symbol or text</u></b>	<b><u>Action; New symbol; New text</u></b>
H01J 35/00	Limiting references	Other means of producing x-rays, e.g. Synchrotron radiation, inverse Compton scattering etc. <a href="#">H05G2/00</a>  Producing x-rays from a hot plasma by recombinations inside the plasma <a href="#">H05G2/001</a>	<b>Delete:</b> These two references and Limiting references section
H01J 35/00	Informative references		<b>Insert:</b> The following <u>new</u> reference into the Informative references table.  Apparatus or processes specially adapted for producing X-rays, not involving X-ray tubes, e.g. involving generation of a plasma <a href="#">H05G2/00</a>
H01J 35/08	Informative references	Transmission Targets H01J 2235/087	<b>Replace:</b> The reference symbol with <a href="#">H01J 35/116</a>
H01J 35/106	Limiting references	Techniques particularly adapted for cooling of a tube inside closed housing H05G 1/04	<b>Delete:</b> This reference and Limiting references section
H01J 35/106	Application-oriented references (NEW)		<b>Insert:</b> A <u>new</u> Application-oriented references section with the following reference:  <i>Application-oriented references</i> <i>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:</i>  Techniques particularly adapted for cooling of a tube inside closed housing <a href="#">H05G 1/04</a>
H01J 35/18	Definition statement	Structures transparent to X-rays but separating a space of certain properties, e.g. ambient pressure, from a space having different respective properties, e.g. low pressure, including windows acting as target anodes.  Further information:  Windows acting as target anodes are additionally covered by the Indexing Code H01J 2235/186.	<b>Delete:</b> The existing two paragraphs:  Further information:  Windows acting as target anodes are additionally covered by the Indexing Code H01J 2235/186.
H01J 2235/087	Entire definition		<b>Delete</b> the entire definition
H01J 2235/186	Entire definition		<b>Delete</b> the entire definition

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NOTES:

- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

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3. REVISION CONCORDANCE LIST (RCL)

<u>Type*</u>	<u>From CPC Symbol (existing)</u>	<u>To CPC Symbol(s)</u>
C	H01J 35/06	H01J 35/06, H01J 35/064, H01J 35/066
C	H01J 35/08	H01J 35/08, H01J 35/112, H01J 35/116
C	H01J 35/101	H01J 35/101, H01J 35/1017, H01J 35/1024, H01J 35/104
C	H01J 35/105	H01J 35/105, H01J 35/107
C	H01J 35/106	H01J 35/106, H01J 35/107
C	H01J 35/12	H01J 35/12, H01J 35/13
C	H01J 35/14	H01J 35/14, H01J 35/147, H01J 35/153
C	H01J 35/18	H01J 35/18, H01J 35/186
D	H01J 2235/087	<administrative transfer to H01J 35/116>
D	H01J 2235/186	<administrative transfer to H01J 35/186>

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

NOTES:

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

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

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
H01J 35/064	H01J 35/06	NEW
H01J 35/066	H01J 35/06	NEW
H01J 35/1017	H01J 35/10	NEW
H01J 35/1024	H01J 35/10	NEW
H01J 35/104	H01J 35/10	NEW
H01J 35/107	H01J 35/10	NEW
H01J 35/112	H01J 35/08	NEW
H01J 35/116	H01J 35/08	NEW
H01J 35/13	H01J 35/12	NEW
H01J 35/147	H01J 35/14	NEW
H01J 35/153	H01J 35/14	NEW
H01J 35/186	H01J 35/18	NEW
H01J 2235/087		DELETE
H01J 2235/186		DELETE

\*Action column:

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

NOTES:

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