# EUROPEAN PATENT OFFICE U.S. PATENT AND TRADEMARK OFFICE

# CPC NOTICE OF CHANGES 842

DATE: MAY1, 2020

# PROJECT RP0282

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

<u>Action</u>	<u>Subclass</u>	Group(s)
SCHEME:		
Symbols New:	G03G	5/06142
•	G03G	5/06144
	G03G	5/061443
	G03G	5/061446
	G03G	5/06145
	G03G	5/06147
	G03G	5/061473
	G03G	5/06149
	G03G	5/072
	G03G	5/0732
	G03G	5/074
	G03G	5/0745
	G03G	5/0763
	G03G	5/0764
	G03G	5/0765
	G03G	5/0766
	G03G	5/0767
Titles Changed:	G03G	5/073
Indents Changed:	G03G	5/073
Warnings New:	G03G	5/0614
-	G03G	5/06142
	G03G	5/06149
	G03G	5/071
	G03G	5/072
	G03G	5/073
	G03G	5/0732
	G03G	5/074
	G03G	5/0745
	G03G	5/076
	G03G	5/0763
	G03G	5/0767

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DEFINITIONS:		
Definitions Modified:	G03G	5/06
	G03G	5/07

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

**This Notice of Changes includes the following** [Check the ones included]:

I. CLA	ASSIF	TCATION SCHEME CHANGES
	$\boxtimes$	A. New, Modified or Deleted Group(s)
	$\boxtimes$	B. New, Modified or Deleted Warning(s)
		C. New, Modified or Deleted Note(s)
		D. New, Modified or Deleted Guidance Heading(s)
2. DEF	FINIT	IONS
	$\boxtimes$	A. New or Modified Definitions (Full definition template)
		B. Modified or Deleted Definitions (Definitions Quick Fix)
3. 🛛	REV	ISION CONCORDANCE LIST (RCL)
4. 🛛	CHA	ANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
· П	CHA	NGES TO THE CROSS-REFERENCE LIST (CRL)

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# 1. CLASSIFICATION SCHEME CHANGES

# A. New, Modified or Deleted Group(s)

SUBCLASS G03G - ELECTROGRAPHY; ELECTROPHOTOGRAPHY; MAGNETOGRAPHY (information storage based on relative movement between record carrier and transducer G11B; static stores with means for writing-in or reading-out information G11C; recording of television signals H04N 5/76)

Type*	<u>Symbol</u>	Indent Level Number of dots (e.g. 0, 1,	Title  "CPC only" text should normally be enclosed in {curly brackets}**	<u>Transferredto</u> #
		<u>2)</u>		
С	G03G 5/0614		{Amines}	G03G 5/0614, G03G 5/06142, G03G 5/06144, G03G 5/061443, G03G 5/061446, G03G 5/06145, G03G 5/06147, G03G 5/061473, G03G 5/06149
N	G03G 5/06142	7	{arylamine}	
N	G03G 5/06144	8	{diamine}	
N	G03G 5/061443	9	{benzidine}	
N	G03G 5/061446	9	{terphenyl-diamine}	
N	G03G 5/06145	8	{triamine or greater}	
N	G03G 5/06147	8	{alkenylarylamine}	
N	G03G 5/061473	9	{plural alkenyl groups linked directly to the same aryl group}	
N	G03G 5/06149	7	{enamine}	
U	G03G 5/07	4	Polymeric photoconductive materials	
С	G03G 5/071	5	{obtained by reactions only involving carbon-to-carbon unsaturated bonds (G03G 5/078 takes precedence)}	G03G 5/071, G03G 5/072, G03G 5/0732, G03G 5/074, G03G 5/0745
N	G03G 5/072	6	{comprising pending monoamine groups}	
С	G03G 5/073	7	{comprising pending carbazole groups}	G03G 5/072, G03G 5/073
N	G03G 5/0732	7	{comprising pending alkenylarylamine}	
N	G03G 5/074	6	{comprising pending diamine}	

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Type*	<u>Symbol</u>	<u>Indent</u> <u>Level</u>	Title "CPC only" text should normally be	<u>Transferredto#</u>
		Number of dots	enclosed in {curly brackets}**	
		(e.g. 0, 1, 2)		
N	G03G 5/0745	6	{comprising pending hydrazone}	
U	G03G 5/075	5	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds (G03G 5/078 takes precedence)}	
С	G03G 5/076	6	{having a photoconductive moiety in the polymer backbone}	G03G 5/076, G03G 5/0763, G03G 5/0764, G03G 5/0765, G03G 5/0766, G03G 5/0767
N	G03G 5/0763	7	{comprising arylamine moiety}	
N	G03G 5/0764	8	{triarylamine}	
N	G03G 5/0765	8	{alkenylarylamine}	
N	G03G 5/0766	8	{benzidine}	
N	G03G 5/0767	7	{comprising hydrazone moiety}	

\*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 <u>subclasses</u>, 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} <u>are</u> 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 <u>must</u> 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 G03G - ELECTROGRAPHY; ELECTROPHOTOGRAPHY; MAGNETOGRAPHY (information storage based on relative movement between record carrier and transducer G11B; static stores with means for writing-in or reading-out information G11C; recording of television signals H04N 5/76)

<u>Type</u> *	<b>Location</b>	Old Warning	New/Modified Warning
N	G03G 5/0614		Group G03G 5/0614 is impacted by reclassification into groups G03G 5/06142-G03G 5/06149. All groups listed in this Warning should be considered in order to perform a complete search.
N	G03G 5/06142		Groups G03G 5/06142-G03G 5/061473 are incomplete pending reclassification of documents from group G03G 5/0614. Groups G03G 5/0614 and G03G 5/06142-G03G 5/061473 should be considered in order to perform a complete search.
N	G03G 5/06149		Groups G03G 5/06149 is incomplete pending reclassification of documents from group G03G 5/0614. Groups G03G 5/0614 and G03G 5/06149 should be considered in order to perform a complete search.
N	G03G 5/071		Group G03G 5/071 is impacted by reclassification into groups G03G 5/072, G03G 5/0732, G03G 5/074 and G03G 5/0745. All groups listed in this Warning should be considered in order to perform a complete search.
N	G03G 5/072		Group G03G 5/072 is incomplete pending reclassification of documents from groups G03G 5/071 and G03G 5/073. Groups G03G 5/071, G03G 5/073 and G03G 5/072 should be considered in order to perform a complete search.
N	G03G 5/073		Group G03G 5/073 is impacted by reclassification into group G03G 5/072. Groups G03G 5/073 and G03G 5/072 should be considered in order to perform a complete search.
N	G03G 5/0732		Group G03G 5/0732 is incomplete pending reclassification of documents from group G03G 5/071. Groups G03G 5/071 and G03G 5/0732 should be considered in order to perform a complete search.

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N	G03G 5/074	Group G03G 5/074 is incomplete pending reclassification of documents from group G03G 5/071. Groups G03G 5/071 and G03G 5/074 should be considered in order to perform a complete search.
N	G03G 5/0745	Group G03G 5/0745 is incomplete pending reclassification of documents from group G03G 5/071. Groups G03G 5/071 and G03G 5/0745 should be considered in order to perform a complete search.
N	G03G 5/076	Group G03G 5/076 is impacted by reclassification into groups G03G 5/0763, G03G 5/0764, G03G 5/0765, G03G 5/0766 and G03G 5/0767. All groups listed in this Warning should be considered in order to perform a complete search.
N	G03G 5/0763	Groups G03G 5/0763-G03G 5/0766 are incomplete pending reclassification of documents from group G03G 5/076. All groups listed in this Warning should be considered in order to perform a complete search.
N	G03G 5/0767	Group G03G 5/0767 is incomplete pending reclassification of documents from group G03G 5/076. Groups G03G 5/076 and G03G 5/0767 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.

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# 2. A. DEFINITIONS (modified)

# G03G 5/06

#### **Definition statement**

This place covers:

Replace: the existing Definition statement text with the following text.

Organic and organo-metallic non-polymeric photoconductive compounds in a photosensitive layer (double layered photosensitive layer comprising charge transporting layer or charge generating layer or single-layered photosensitive layer including charge generation material and charge transporting material).

Further details of subgroups

G03G5/0601 Acyclic or carbocyclic compounds: any (substituted) non-hetero cyclic compound such as aromatic rings, aliphatic rings.

G03G5/0605 carbocyclic compounds with halogen groups substituted to ring.

G03G5/0609 any carbocyclic with an oxygen-containing functional group, such as keto- ketal- carboxylic acids, aldehydes, alcohols, anhydrides.

G03G5/0611 Squaric acid: also called as quadratic acid, because its four carbon atoms approximately form a square, C4H2O4.

G03G5/0614 containing any non-heterocyclic compound substituted with prim., sec. or tert. amino; e.g. triethanolamine. Heterocyclic amines classify in G03G 5/0622 – G03G5/0661 as appropriate.

G03G 5/06142 containing a compound having an arylamine group, i.e., compounds of the formula R<sub>2</sub>NR" wherein: R" is an aryl group, and R is hydrogen, or a carbon containing group.

G03G 5/06144 containing an arylamine compound having two amino nitrogens, e.g., of the formula R<sub>2</sub>N-R"-NR<sub>2</sub> wherein: R" is an aromatic group and R is hydrogen, or a carbon containing group.

G03G 5/061443 containing the diamine R<sub>2</sub>N-Ph-Ph-NR<sub>2</sub>, wherein: Ph-Ph is biphenylene and R is hydrogen or a carbon containing group.

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G03G 5/061446 containing the diamine R<sub>2</sub>N-Ph-Ph-NR<sub>2</sub>, wherein: Ph-Ph-Ph is terphenylene and R is hydrogen or a carbon containing group.

G03G 5/06145 containing an arylamine compound having three amino nitrogens or greater connected to an aryl group.

G03G 5/06147 containing an arylamine compound having an alkenyl group bonded, directly or indirectly, to amino nitrogen (e.g., compounds having the formula R2N-R"-CR=CR2, wherein: R" is an arylene group and R is hydrogen or a carbon containing group).

G03G 5/061473 containing an arylamine compound having two or more alkenyl group bonded, directly or indirectly, to amino nitrogen (e.g., compounds having the formula R<sub>2</sub>N-R"-CR=CR-CR=CR<sub>2</sub>, wherein: R" is an arylene group and R is hydrogen or a carbon containing group).

G03G 5/06149 containing an amine compound having an alkenyl group bonded, directly or indirectly, to amino nitrogen (e.g., compounds having the formula R<sub>2</sub>N-R"-CR=CR<sub>2</sub>, wherein: R" is an alkylene group and R is hydrogen or an aliphatic carbon containing group).

G03G5/0618 any non-hetero cyclic compound substituted with oxygen and nitrogen; e.g. (di-)cyano-, urea, nitro-, amido-substitution.

G03G5/062 any non-hetero-cyclic compound substituted with non-metallic elements, such as Si (other than H, Hal, O or N).

G03G5/0622 any aromatic ring not covered by G03G5/0624.

G03G5/0624 containing one single hetero ring in the compound.

G03G5/0644 containing two or more hetero rings in the same compound.

G03G5/0646 containing two or more hetero rings in the compound in the same ring system including all cyclic rings - also the carbocyclic elements and the heterocyclic elements of the ring system, e.g. quinacridone. Ring system of at least two hetero-rings, further divided by the number of all rings, including also the non-heterocyclic rings. For example, perylene.

G03G5/0661 containing two or more hetero rings in the compound in different ring systems each system contains at least one hetero ring, e.g. oligomers of quinacridones.

G03G5/0662 any organ metallic non-macromolecular compound that contains metal elements [N. note alcoholates, phenates or organic acid salts of alkali or alkaline earth metals are classified as parent compounds, e.g. organometallic dyes should be classified in G03G5/0664]: e.g. zirconocene.

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G03G5/0664 Dyes, should be regarded in a more general meaning, i.e. a compound in a photoconductive layer that function as a photosensitive material, not only restricted to colouring agents.

G03G5/0666 dyes containing a methine or polymethine group in the compound; in case the polymethine is located between two or three azo groups classification is made in the last appropriate place, document should only be classified in G03G5/0683 or G03G5/069.

G03G5/0668 dyes containing only one methine or polymethine group.

G03G5/067 dyes containing only one methine or polymethine group and one or more hetero ring(s).

G03G5/0672 dyes containing two or more methine or polymethine group.

G03G5/0674 dyes containing two or more methine or polymethine group and one or more hetero ring(s).

G03G5/0675 azo dyes.

G03G5/0677 monoazo dyes.

G03G5/0679 disazo dyes.

G03G5/0681 diazo dyes containing hetero rings between the azo groups.

G03G5/0683 diazo dyes containing polymethine or anthraquinone groups between the azo groups.

G03G5/0685 diazo dyes containing hetero rings between the between the azo groups.

G03G5/0687 trisazo dyes.

G03G5/0688 trisazo dyes containing hetero rings between the azo groups.

G03G5/069 trisazo dyes containing polymethine or anthraquinone groups between the azo groups.

G03G5/0694 azo dyes containing more than 3 azo groups in the compound.

G03G5/0696 phthalocyanine dyes: documents dealing with other dyes which are structurally very similar to phthalocyanine dyes such as naphthocyanines or phorphorines or the like should also be classified in this group.

G03G5/0698 any photosensitive agent in a recording layer of unspecified structure characterised by a substituent, such as a charge carrying agent.

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#### G03G 5/07

#### **Definition statement**

This place covers:

Replace: the existing Definition statement text with the following text.

Any type of macromolecular photoconductive compounds. The polymeric photoconductive compounds are further subdivided according to the method of polymerisation and by the photoconductive group, which can be part of the macromolecular compound's backbone or pendant from the backbone.

# Further details of subgroups

G03G5/071 containing macromolecular photoconductive compounds obtained by polymerisation of compounds having carbon-to-carbon unsaturated bonds (e.g., acrylate, styrene, etc.) and having a photoconductive group.

G03G 5/072 containing a macromolecular photoconductive compounds obtained by polymerization of compounds having carbon-to-carbon unsaturated bonds and having a single amine as a pendant group. The amine group can be part of a repeating unit of the macromolecular compound.

G03G5/073 containing a macromolecular photoconductive compounds obtained by polymerization of compounds having carbon-to-carbon unsaturated bonds and having a carbazole group as a pendant group. The carbazole group can be part of a repeating unit of the macromolecular compound.

G03G 5/0732 containing a macromolecular photoconductive compounds obtained by polymerization of compounds having carbon-to-carbon unsaturated bonds and having an alkenylarylamine group as a pendant group, where the alkenylarylamine is an amine compound having an alkenyl group bonded, directly or indirectly, to amino nitrogen (e.g., compounds having the formula R2N-R"-CR=CR2, wherein: R" is an arylene group and R is hydrogen or an aliphatic carbon-containing group and at least one is a carbon containing radical that links directly or indirectly to the backbone of the macromolecular compound). The alkenylarylamine group can be part of a repeating unit of the macromolecular compound.

G03G 5/074 containing a macromolecular photoconductive compounds obtained by polymerization of compounds having carbon-to-carbon unsaturated bonds and

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having a diamine group as a pendant group. The diamine group can be part of a repeating unit of the macromolecular compound.

G03G 5/0745 containing a macromolecular photoconductive compounds obtained by polymerization of compounds having carbon-to-carbon unsaturated bonds and having a hydrazone group as a pendant group. The hydrazone group can be part of a repeating unit of the macromolecular compound.

G03G5/075 containing macromolecular photoconductive compounds formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds (e.g. a condensation reaction to form a polyester).

G03G5/076 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having a photoconductive moiety as part of the polymer backbone.

G03G 5/0763 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having an arylamine group as part of the polymer backbone.

G03G 5/0764 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having a triarylamine group as part of the polymer backbone.

G03G 5/0765 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having an alkenylarylamine group as part of the polymer backbone.

G03G 5/0766 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having a benzidine group as part of the polymer backbone.

G03G 5/0767 containing a macromolecular compound formed from other than polymerization of compounds having carbon-to-carbon unsaturated bonds and having a hydrazone group as part of the polymer backbone.

G03G5/078 polysilicone photoconductive resin; any type of silicon-containing polymer.

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#### 3. REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
С	G03G 5/0614	G03G 5/0614, G03G 5/06142, G03G 5/06144,
		G03G 5/061443, G03G 5/061446, G03G 5/06145,
		G03G 5/06147, G03G 5/061473, G03G 5/06149
С	G03G 5/071	G03G 5/071, G03G 5/072, G03G 5/0732, G03G
		5/074, G03G 5/0745
С	G03G 5/073	G03G 5/072, G03G 5/073
С	G03G 5/076	G03G 5/076, G03G 5/0763, G03G 5/0764, G03G
		5/0765, G03G 5/0766, G03G 5/0767

<sup>\*</sup> 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 intellect ual 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)

CPC	<u>IPC</u>	Action*
G03G 5/06142	G03G 5/06	New
G03G 5/06144	G03G 5/06	New
G03G 5/061443	G03G 5/06	New
G03G 5/061446	G03G 5/06	New
G03G 5/06145	G03G 5/06	New
G03G 5/06147	G03G 5/06	New
G03G 5/061473	G03G 5/06	New
G03G 5/06149	G03G 5/06	New
G03G 5/072	G03G 5/07	New
G03G 5/0732	G03G 5/07	New
G03G 5/074	G03G 5/07	New
G03G 5/0745	G03G 5/07	New
G03G 5/0763	G03G 5/07	New
G03G 5/0764	G03G 5/07	New
G03G 5/0765	G03G 5/07	New
G03G 5/0766	G03G 5/07	New
G03G 5/0767	G03G 5/07	New

#### \*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 <u>not</u> 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.