

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

#### G03 PHOTOGRAPHY; CINEMATOGRAPHY; ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ELECTROGRAPHY; HOLOGRAPHY (NOTE omitted)

#### 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](#))

##### NOTES

1. This subclass covers:
  - the production of permanent directly-visible pictures in conformity with an original picture or document, using an intermediate imagewise distribution of an electric or magnetic quantity, such as a charge pattern, an electric conductivity pattern, or a magnetic pattern;
  - the production of permanent directly-visible pictures using an intermediate imagewise distribution of an electric or magnetic quantity, when the origin and the way of generating said intermediate distribution are not relevant.
2. This subclass does not cover:
  - use of electric signals for the transmission of the picture information from the original to the reproduction, i.e. pictorial communication, which is covered by subclass [H04N](#);
  - production of pictures by heat patterns exclusively, not using an electrostatic or magnetic pattern, which is covered by group [B41M 5/00](#);
  - production of prints by transferring ink from a printing form to a printing surface, without physical contact and using the force of an electrostatic field, which is covered by subclass [B41M](#);
  - selective printing mechanisms characterised by the selective supply of electric current, or the selective application of magnetism or radiation, to a printing material or impression-transfer material, which are covered by groups [B41J 2/385](#), [B41J 2/435](#).

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

5/00	Recording members for original recording by exposure, e.g. to light, to heat, to electrons; Manufacture thereof; Selection of materials therefor (recording surfaces for measuring apparatus <a href="#">G01D 15/34</a> ; photosensitive materials for photographic purposes <a href="#">G03C</a> )	5/026	. . . Layers in which during the irradiation a chemical reaction occurs whereby electrically conductive patterns are formed in the layers, e.g. for chemixerography
5/005	. {Materials for treating the recording members, e.g. for cleaning, reactivating, polishing}	5/028	. . . Layers in which after being exposed to heat patterns electrically conductive patterns are formed in the layers, e.g. for thermoxerography
5/02	. Charge-receiving layers ( <a href="#">G03G 5/153</a> takes precedence)	5/04	. . . Photoconductive layers; Charge-generation layers or charge-transporting layers; Additives therefor; Binders therefor
5/0202	. . {Dielectric layers for electrography}	5/043	. . . . Photoconductive layers characterised by having two or more layers or characterised by their composite structure
5/0205	. . . {Macromolecular components}	5/0433	. . . . {all layers being inorganic}
5/0208	. . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}	5/0436	. . . . {combining organic and inorganic layers}
5/0211	. . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}	5/047	. . . . characterised by the charge-generation layers or charge transport layers ( <a href="#">G03G 5/0433</a> and <a href="#">G03G 5/0436</a> take precedence)
5/0214	. . . {Organic non-macromolecular components}	5/05	. . . Organic bonding materials; Methods for coating a substrate with a photoconductive layer; Inert supplements for use in photoconductive layers
5/0217	. . . {Inorganic components}		
5/022	. . Layers for surface-deformation imaging, e.g. frost imaging		
5/024	. . Photoelectret layers		

- 5/0503 . . . . {Inert supplements}
- 5/0507 . . . . {Inorganic compounds}
- 5/051 . . . . {Organic non-macromolecular compounds}
- 5/0514 . . . . {not comprising cyclic groups}
- 5/0517 . . . . {comprising one or more cyclic groups consisting of carbon-atoms only}
- 5/0521 . . . . {comprising one or more heterocyclic groups}
- 5/0525 . . . . {Coating methods}
- 5/0528 . . . . {Macromolecular bonding materials}

**NOTE**

In groups [G03G 5/0528](#) - [G03G 5/0596](#), in the absence of an indication to the contrary, a polymer is classified in the last appropriate place

- 5/0532 . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 5/0535 . . . . {Polyolefins; Polystyrenes; Waxes}
- 5/0539 . . . . {Halogenated polymers}
- 5/0542 . . . . {Polyvinylalcohol, polyallyl alcohol; Derivatives thereof, e.g. polyvinylesters, polyvinylethers, polyvinylamines}
- 5/0546 . . . . {Polymers comprising at least one carboxyl radical, e.g. polyacrylic acid, polycrotonic acid, polymaleic acid; Derivatives thereof, e.g. their esters, salts, anhydrides, nitriles, amides}
- 5/055 . . . . {Polymers containing hetero rings in the side chain}
- 5/0553 . . . . {Polymers derived from conjugated double bonds containing monomers, e.g. polybutadiene; Rubbers}
- 5/0557 . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 5/056 . . . . {Polyesters}
- 5/0564 . . . . {Polycarbonates}
- 5/0567 . . . . {Other polycondensates comprising oxygen atoms in the main chain; Phenol resins}
- 5/0571 . . . . {Polyamides; Polyimides}
- 5/0575 . . . . {Other polycondensates comprising nitrogen atoms with or without oxygen atoms in the main chain}
- 5/0578 . . . . {Polycondensates comprising silicon atoms in the main chain}
- 5/0582 . . . . {Polycondensates comprising sulfur atoms in the main chain}
- 5/0585 . . . . {Cellulose and derivatives}
- 5/0589 . . . . {Macromolecular compounds characterised by specific side-chain substituents or end groups}
- 5/0592 . . . . {Macromolecular compounds characterised by their structure or by their chemical properties, e.g. block polymers, reticulated polymers, molecular weight, acidity}
- 5/0596 . . . . {Macromolecular compounds characterised by their physical properties}

- 5/06 . . . characterised by the photoconductive material being organic

**NOTE**

In groups [G03G 5/06](#) - [G03G 5/0698](#), in the absence of an indication to the contrary, an invention is classified in the last appropriate place

- 5/0601 . . . . {Acyclic or carbocyclic compounds}
- 5/0603 . . . . {containing halogens}
- 5/0605 . . . . {Carbocyclic compounds}
- 5/0607 . . . . {containing at least one non-six-membered ring}
- 5/0609 . . . . {containing oxygen}
- 5/0611 . . . . {Squaric acid}
- 5/0612 . . . . {containing nitrogen}
- 5/0614 . . . . {Amines}

**WARNING**

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.

- 5/06142 . . . . {arylamines}

**WARNING**

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.

- 5/06144 . . . . {diamine}
- 5/061443 . . . . {benzidine}
- 5/061446 . . . . {terphenyl-diamine}
- 5/06145 . . . . {triamine or greater}
- 5/06147 . . . . {alkenylarylamines}
- 5/061473 . . . . {plural alkenyl groups linked directly to the same aryl group}
- 5/06149 . . . . {enamine}

**WARNING**

Group [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.

- 5/0616 . . . . {Hydrazines; Hydrazones}
- 5/0618 . . . . {containing oxygen and nitrogen}
- 5/062 . . . . {containing non-metal elements other than hydrogen, halogen, oxygen or nitrogen}
- 5/0622 . . . . {Heterocyclic compounds}
- 5/0624 . . . . {containing one hetero ring}
- 5/0625 . . . . {being three- or four-membered}

5/0627	. . . . .	{being five-membered}
5/0629	. . . . .	{containing one hetero atom}
5/0631	. . . . .	{containing two hetero atoms}
5/0633	. . . . .	{containing three hetero atoms}
5/0635	. . . . .	{being six-membered}
5/0637	. . . . .	{containing one hetero atom}
5/0638	. . . . .	{containing two hetero atoms}
5/064	. . . . .	{containing three hetero atoms}
5/0642	. . . . .	{being more than six-membered}
5/0644	. . . . .	{containing two or more hetero rings}
5/0646	. . . . .	{in the same ring system}
5/0648	. . . . .	{containing two relevant rings}
5/065	. . . . .	{containing three relevant rings}
5/0651	. . . . .	{containing four relevant rings}
5/0653	. . . . .	{containing five relevant rings}
5/0655	. . . . .	{containing six relevant rings}
5/0657	. . . . .	{containing seven relevant rings}
5/0659	. . . . .	{containing more than seven relevant rings}
5/0661	. . . . .	{in different ring systems, each system containing at least one hetero ring}
5/0662	. . . . .	{containing metal elements}
<b>NOTE</b>		
Alcoholates, phenates or organic acid salts of alkali or alkaline earth metals are classified as the parent compounds		
5/0664	. . . . .	{Dyes}
5/0666	. . . . .	{containing a methine or polymethine group}
5/0668	. . . . .	{containing only one methine or polymethine group}
5/067	. . . . .	{containing hetero rings}
5/0672	. . . . .	{containing two or more methine or polymethine groups}
5/0674	. . . . .	{containing hetero rings}
5/0675	. . . . .	{Azo dyes}
5/0677	. . . . .	{Monoazo dyes}
5/0679	. . . . .	{Disazo dyes}
5/0681	. . . . .	{containing hetero rings in the part of the molecule between the azo-groups}
5/0683	. . . . .	{containing polymethine or anthraquinone groups}
5/0685	. . . . .	{containing hetero rings in the part of the molecule between the azo-groups}
5/0687	. . . . .	{Trisazo dyes}
5/0688	. . . . .	{containing hetero rings}
5/069	. . . . .	{containing polymethine or anthraquinone groups}
5/0692	. . . . .	{containing hetero rings}
5/0694	. . . . .	{containing more than three azo groups}
5/0696	. . . . .	{Phthalocyanines}
5/0698	. . . . .	{Compounds of unspecified structure characterised by a substituent only}
5/07	. . . . .	Polymeric photoconductive materials

5/071 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds ([G03G 5/078 takes precedence](#))}

**WARNING**

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.

5/072 . . . . . {comprising pending monoamine groups}

**WARNING**

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.

5/073 . . . . . {comprising pending carbazole groups}

**WARNING**

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.

5/0732 . . . . . {comprising pending alkenylarylamines}

**WARNING**

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.

5/074 . . . . . {comprising pending diamine}

**WARNING**

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.

5/0745 . . . . . {comprising pending hydrazone}

#### **WARNING**

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.

5/075 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds ([G03G 5/078](#) takes precedence)}

5/076 . . . . . {having a photoconductive moiety in the polymer backbone}

#### **WARNING**

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.

5/0763 . . . . . {comprising arylamine moiety}

#### **WARNING**

Group [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.

5/0764 . . . . . {triarylamine}

5/0765 . . . . . {alkenylarylamine}

5/0766 . . . . . {benzidine}

5/0767 . . . . . {comprising hydrazone moiety}

#### **WARNING**

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.

5/078 . . . . . {comprising silicon atoms}

5/08 . . . characterised by the photoconductive material being inorganic

5/082 . . . . and not being incorporated in a bonding material, e.g. vacuum deposited

5/08207 . . . . . {Selenium-based}

5/08214 . . . . . {Silicon-based}

5/08221 . . . . . {comprising one or two silicon based layers}

5/08228 . . . . . {at least one with varying composition}

5/08235 . . . . . {comprising three or four silicon-based layers}

5/08242 . . . . . {at least one with varying composition}

5/0825 . . . . . {comprising five or six silicon-based layers}

5/08257 . . . . . {at least one with varying composition}

5/08264 . . . . . {comprising seven or more silicon-based layers}

5/08271 . . . . . {at least one with varying composition}

5/08278 . . . . . {Depositing methods}

5/08285 . . . . . {Carbon-based (in ad mixture with Si [G03G 5/08214](#))}

5/08292 . . . . . {Germanium-based (in ad mixture with Si [G03G 5/08214](#))}

5/085 . . . . and being incorporated in an inorganic bonding material, e.g. glass-like layers

5/087 . . . . and being incorporated in an organic bonding material

5/09 . . . Sensitisors or activators, e.g. dyestuffs ([G03G 5/12](#) takes precedence)

5/10 . Bases for charge-receiving or other layers

5/101 . . {Paper bases ([G03G 5/102](#), [G03G 5/104](#), [G03G 5/105](#) take precedence)}

5/102 . . {consisting of or comprising metals}

5/104 . . {comprising inorganic material other than metals, e.g. salts, oxides, carbon}

5/105 . . {comprising electroconductive macromolecular compounds}

5/107 . . . {the electroconductive macromolecular compounds being cationic}

5/108 . . . {the electroconductive macromolecular compounds being anionic}

5/12 . Recording members for multicolour processes

5/14 . Inert intermediate or cover layers for charge-receiving layers ([G03G 5/04](#) takes precedence)

5/142 . . {Inert intermediate layers}

5/144 . . . {comprising inorganic material}

5/147 . . Cover layers

5/14704 . . . {comprising inorganic material}

5/14708 . . . {comprising organic material}

5/14713 . . . . {Macromolecular material}

#### **NOTE**

In groups [G03G 5/14713](#) - [G03G 5/14795](#), in the absence of an indication to the contrary, a polymer is classified in the last appropriate place

5/14717 . . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}

5/14721 . . . . . {Polyolefins; Polystyrenes; Waxes}

5/14726 . . . . . {Halogenated polymers}

5/1473 . . . . . {Polyvinylalcohol, polyallylalcohol; Derivatives thereof, e.g. polyvinylesters, polyvinylethers, polyvinylamines}

5/14734 . . . . . {Polymers comprising at least one carboxyl radical, e.g. polyacrylic acid, polycrotonic acid, polymaleic acid; Derivatives thereof, e.g. their esters, salts, anhydrides, nitriles, amides}

5/14739	. . . . .	{Polymers containing hereto rings in the side chain}	7/0093	. {Image-receiving members, based on materials other than paper or plastic sheets, e.g. textiles, metals}
5/14743	. . . . .	{Polymers derived from conjugated double bonds containing monomers, e.g. polybutadiene; Rubbers}	<b>8/00</b>	<b>Layers covering the final reproduction, e.g. for protecting, for writing thereon</b>
5/14747	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}	<b>9/00</b>	<b>Developers</b>
5/14752	. . . . .	{Polyesters}	9/06	. the developer being electrolytic
5/14756	. . . . .	{Polycarbonates}	9/08	. with toner particles
5/1476	. . . . .	{Other polycondensates comprising oxygen atoms in the main chain; Phenol resins}	<b>NOTES</b>	
5/14765	. . . . .	{Polyamides; Polyimides}	1. In the subgroups of	
5/14769	. . . . .	{Other polycondensates comprising nitrogen atoms with or without oxygen atoms in the main chain}	{ <a href="#">G03G 9/0802</a> - <a href="#">G03G 9/1355</a> }, the last place	
5/14773	. . . . .	{Polycondensates comprising silicon atoms in the main chain}	priority rule is applied, i.e. at each hierarchical	
5/14778	. . . . .	{Polycondensates comprising sulfur atoms in the main chain}	level, in the absence of an indication to the	
5/14782	. . . . .	{Cellulose and derivatives}	contrary, classification is made in the last	
5/14786	. . . . .	{Macromolecular compounds characterised by specific side-chain substituents or end groups}	appropriate place.	
5/14791	. . . . .	{Macromolecular compounds characterised by their structure, e.g. block polymers, reticulated polymers, or by their chemical properties, e.g. by molecular weight or acidity}	2. {In the subgroups of	
5/14795	. . . . .	{Macromolecular compounds characterised by their physical properties}	<a href="#">G03G 9/0835</a> - <a href="#">G03G 9/0839</a> ,	
5/153	. Charge-receiving layers combined with additional photo- or thermo-sensitive, but not photoconductive, layers, e.g. silver-salt layers		<a href="#">G03G 9/08786</a> - <a href="#">G03G 9/08797</a> ,	
5/16	. Layers for recording by changing the magnetic properties, e.g. for Curie-point-writing		<a href="#">G03G 9/0926</a> - <a href="#">G03G 9/0928</a> and	
<b>7/00</b>	<b>Selection of materials for use in image-receiving members, i.e. for reversal by physical contact; Manufacture thereof (photosensitive materials for photographic purposes <a href="#">G03C</a>)</b>		<a href="#">G03G 9/10</a> - <a href="#">G03G 9/10884</a> the common rule is	
7/0006	. {Cover layers for image-receiving members; Strippable coversheets}		applied.}	
7/0013	. . {Inorganic components thereof}		9/0802	. . {Preparation methods}
7/002	. . {Organic components thereof}		9/0804	. . . {whereby the components are brought together in a liquid dispersing medium}
7/0026	. . . {being macromolecular}		9/0806	. . . . {whereby chemical synthesis of at least one of the toner components takes place}
7/0033	. . . . {Natural products or derivatives thereof, e.g. cellulose, proteins}		9/0808	. . . {by dry mixing the toner components in solid or softened state}
7/004	. . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}		9/081	. . . {by mixing the toner components in a liquefied state; melt kneading; reactive mixing}
7/0046	. . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}		9/0812	. . . {Pretreatment of components}
7/0053	. {Intermediate layers for image-receiving members}		9/0815	. . . {Post-treatment}
7/006	. {Substrates for image-receiving members; Image-receiving members comprising only one layer}		9/0817	. . . {Separation; Classifying}
7/0066	. . {Inorganic components thereof}		9/0819	. . {characterised by the dimensions of the particles}
7/0073	. . {Organic components thereof}		9/0821	. . {characterised by physical parameters ( <a href="#">magnetic parameters <a href="#">G03G 9/083</a></a> )}
7/008	. . . {being macromolecular}		9/0823	. . . {Electric parameters}
7/0086	. {Back layers for image-receiving members; Strippable backsheets}		9/0825	. . {characterised by their structure; characterised by non-homogeneous distribution of components ( <a href="#">microcapsular toners <a href="#">G03G 9/093</a></a> )}
			9/0827	. . {characterised by their shape, e.g. degree of sphericity}
			9/083	. . Magnetic toner particles
			9/0831	. . . {Chemical composition of the magnetic components}
			9/0832	. . . . {Metals}
			9/0833	. . . . {Oxides}
			9/0834	. . . . {Non-magnetic inorganic compounds chemically incorporated in magnetic components}
			9/0835	. . . {Magnetic parameters of the magnetic components}
			9/0836	. . . {Other physical parameters of the magnetic components}
			9/0837	. . . {Structural characteristics of the magnetic components, e.g. shape, crystallographic structure}
			9/0838	. . . {Size of magnetic components}
			9/0839	. . . {Treatment of the magnetic components; Combination of the magnetic components with non-magnetic materials ( <a href="#">G03G 9/0834</a> takes precedence)}



9/087	. . .	Binders for toner particles	9/08788	. . . .	{Block polymers}
9/08702	. . .	{comprising macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds}	9/08791	. . . .	{characterised by the presence of specified groups or side chains}
9/08704	. . . .	{Polyalkenes}	9/08793	. . . .	{Crosslinked polymers}
9/08706	. . . .	{Polymers of alkenyl-aromatic compounds}	9/08795	. . . .	{characterised by their chemical properties, e.g. acidity, molecular weight, sensitivity to reactants}
9/08708	. . . . .	{Copolymers of styrene}	9/08797	. . . .	{characterised by their physical properties, e.g. viscosity, solubility, melting temperature, softening temperature, glass transition temperature}
9/08711	. . . . .	{with esters of acrylic or methacrylic acid}	9/09	. . .	Colouring agents for toner particles
9/08713	. . . . .	{Polyvinylhalogenides}	9/0902	. . .	{Inorganic compounds}
9/08715	. . . . .	{containing chlorine, bromine or iodine}	9/0904	. . . .	{Carbon black}
9/08717	. . . . .	{Polyvinylchloride}	9/0906	. . .	{Organic dyes}
9/0872	. . . . .	{containing fluorine}	9/0908	. . . .	{Anthracene dyes}
9/08722	. . . .	{Polyvinylalcohols; Polyallyl alcohols; Polyvinylethers; Polyvinylaldehydes; Polyvinylketones; Polyvinylketals}	9/091	. . . .	{Azo dyes}
9/08724	. . . .	{Polyvinylesters}	9/0912	. . . .	{Indigoid; Diaryl and Triaryl methane; Oxyketone dyes}
9/08726	. . . .	{Polymers of unsaturated acids or derivatives thereof}	9/0914	. . . .	{Acridine; Azine; Oxazine; Thiazine-; (Xanthene-) dyes}
9/08728	. . . . .	{Polymers of esters}	9/0916	. . . .	{Quinoline; Polymethine dyes}
9/08731	. . . . .	{Polymers of nitriles}	9/0918	. . . .	{Phthalocyanine dyes}
9/08733	. . . . .	{Polymers of unsaturated polycarboxylic acids}	9/092	. . . .	{Quinacridones}
9/08735	. . . .	{Polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins}	9/0922	. . . .	{Formazane dyes; Nitro and Nitroso dyes; Quinone imides; Azomethine dyes}
9/08737	. . . .	{Polymers derived from conjugated dienes}	9/0924	. . . .	{Dyes characterised by specific substituents}
9/0874	. . . .	{Polymers comprising hetero rings in the side chains}	9/0926	. . .	{characterised by physical or chemical properties}
9/08742	. . .	{comprising macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}	9/0928	. . .	{Compounds capable to generate colouring agents by chemical reaction}
9/08744	. . . .	{Polyacetals}	9/093	. . .	Encapsulated toner particles
9/08746	. . . .	{Condensation polymers of aldehydes or ketones}	9/09307	. . .	{specified by the shell material}
9/08748	. . . . .	{Phenoplasts}	9/09314	. . . .	{Macromolecular compounds}
9/08751	. . . . .	{Aminoplasts}	9/09321	. . . . .	{obtained by reactions only involving carbon-to-carbon unsaturated bonds}
9/08753	. . . . .	{Epoxyresins}	9/09328	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
9/08755	. . . . .	{Polyesters}	9/09335	. . . . .	{Non-macromolecular organic compounds}
9/08757	. . . . .	{Polycarbonates}	9/09342	. . . . .	{Inorganic compounds}
9/08759	. . . . .	{Polyethers}	9/0935	. . .	{specified by the core material}
9/08762	. . . .	{Other polymers having oxygen as the only heteroatom in the main chain}	9/09357	. . . .	{Macromolecular compounds}
9/08764	. . . .	{Polyureas; Polyurethanes}	9/09364	. . . . .	{obtained by reactions only involving carbon-to-carbon unsaturated bonds}
9/08766	. . . .	{Polyamides, e.g. polyesteramides}	9/09371	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
9/08768	. . . .	{Other polymers having nitrogen in the main chain, with or without oxygen or carbon only}	9/09378	. . . . .	{Non-macromolecular organic compounds}
9/08771	. . . .	{Polymers having sulfur in the main chain, with or without oxygen, nitrogen or carbon only}	9/09385	. . . . .	{Inorganic compounds}
9/08773	. . . .	{Polymers having silicon in the main chain, with or without sulfur, oxygen, nitrogen or carbon only}	9/09392	. . .	{Preparation thereof}
9/08775	. . .	{Natural macromolecular compounds or derivatives thereof}	9/097	. . .	Plasticisers; Charge controlling agents
9/08777	. . . .	{Cellulose or derivatives thereof}	9/09708	. . .	{Inorganic compounds}
9/08779	. . . .	{Natural rubber}	9/09716	. . . .	{treated with organic compounds}
9/08782	. . . .	{Waxes}	9/09725	. . . .	{Silicon-oxides; Silicates}
9/08784	. . .	{Macromolecular material not specially provided for in a single one of groups <a href="#">G03G 9/08702</a> - <a href="#">G03G 9/08775</a> }	9/09733	. . .	{Organic compounds ( <a href="#">G03G 9/08782</a> takes precedence)}
9/08786	. . . .	{Graft polymers}	9/09741	. . . .	{cationic}
			9/0975	. . . .	{anionic}
			9/09758	. . . .	{comprising a heterocyclic ring}
			9/09766	. . . .	{comprising fluorine}

- 9/09775 . . . . {containing atoms other than carbon, hydrogen or oxygen  
([G03G 9/09741](#) - [G03G 9/09766](#) take precedence)}
- 9/09783 . . . . {Organo-metallic compounds}
- 9/09791 . . . . {Metallic soaps of higher carboxylic acids}
- 9/10 . . characterised by carrier particles
- 9/103 . . . . {Glass particles}
- 9/107 . . . having magnetic components
- 9/1075 . . . . {Structural characteristics of the carrier particles, e.g. shape or crystallographic structure}
- 9/108 . . . . {Ferrite carrier, e.g. magnetite}
- 9/1085 . . . . {with non-ferrous metal oxide, e.g. MgO-Fe<sub>2</sub>O<sub>3</sub>}
- 9/1087 . . . . {Specified elemental magnetic metal or alloy, e.g. alnico comprising iron, nickel, cobalt, and aluminum, or permalloy comprising iron and nickel}
- 9/1088 . . . . {Binder-type carrier}
- 9/10882 . . . . {Binder is obtained by reactions only involving carbon-carbon unsaturated bonds}
- 9/10884 . . . . {Binder is obtained other than by reactions only involving carbon-carbon unsaturated bonds}
- 9/113 . . . having coatings applied thereto
- 9/1131 . . . . {Coating methods; Structure of coatings}
- 9/1132 . . . . {Macromolecular components of coatings}
- 9/1133 . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/1134 . . . . . {containing fluorine atoms}
- 9/1135 . . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/1136 . . . . . {containing silicon atoms}
- 9/1137 . . . . . {being crosslinked}
- 9/1138 . . . . {Non-macromolecular organic components of coatings}
- 9/1139 . . . . {Inorganic components of coatings}
- 9/12 . . in liquid developer mixtures
- 9/122 . . . {characterised by the colouring agents}
- 9/125 . . . characterised by the liquid
- 9/13 . . . characterised by polymer components
- 9/131 . . . . {obtained by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/132 . . . . {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}
- 9/133 . . . . {Graft-or block polymers}
- 9/135 . . . characterised by stabiliser or charge-controlling agents
- 9/1355 . . . . {Ionic, organic compounds}
- 9/16 . Developers not provided for in groups  
[G03G 9/06](#) - [G03G 9/135](#), e.g. solutions, aerosols
- 9/18 . . Differentially wetting liquid developers

# 11/00 Selection of substances for use as fixing agents

## 13/00 Electrographic processes using a charge pattern ([G03G 15/00](#), [G03G 16/00](#), [G03G 17/00](#) take precedence)

### NOTE

Group [G03G 15/00](#) also deals with processes in so far as they are characterised by the use or manipulation of apparatus classifiable *per se* in group [G03G 15/00](#) and therefor takes precedence

- 13/01 . for multicoloured copies ({colour correction on photography [G03B 27/725](#); picture communication systems [H04N 1/46](#))}
- 13/013 . . {characterised by the developing step, e.g. the properties of the colour developers}
- 13/0131 . . . {developing using a step for liquid development, e.g. plural liquid color developers}
- 13/0133 . . . {developing using a step for deposition of subtractive colorant developing compositions, e.g. cyan, magenta and yellow}
- 13/0135 . . . {developing using a step for deposition of five or more developing compositions of different colors, excluding black, e.g. pentachrome printing or hexachrome printing}
- 13/0137 . . . {developing using a step for deposition of security developing composition, e.g. fluorescent colorants, decolorizable colorants or magnetic ink character recognition toners [MICR]}
- 13/0139 . . . {developing using a step for clear toner deposition, e.g. for regulating gloss or supplying protective coatings}
- 13/016 . . {in which the colour powder image is formed directly on the recording material, e.g. DEP methods}
- 13/02 . Sensitising, i.e. laying-down a uniform charge  
([devices for corona discharge per se H01T 19/00](#))
- 13/025 . . {by contact, friction or induction}
- 13/04 . Exposing, i.e. imagewise exposure by optically projecting the original image on a photoconductive recording material
- 13/045 . . Charging or discharging distinct portions of the charge pattern on the recording material, e.g. discharging non-image areas, contrast enhancement ([G03G 13/34](#), [G03G 15/36](#), [G03G 21/06](#) take precedence)
- 13/05 . Imagewise charging, i.e. laying-down a charge in the configuration of an original image using a modulated stream of charged particles, e.g. of corona ions, modulated by a photoconductive control screen bearing a charge pattern or by optically activated charging means ([using charging means controlled by electric image signals B41J](#))
- 13/054 . using X-rays, e.g. electroradiography
- 13/056 . using internal polarisation
- 13/06 . Developing
- 13/08 . . using a solid developer, e.g. powder developer
- 13/09 . . . using magnetic brush
- 13/095 . . . Removing excess solid developer
- 13/10 . . using a liquid developer {, e.g. liquid suspension}
- 13/11 . . . Removing excess liquid developer, e.g. by heat
- 13/14 . Transferring a pattern to a second base
- 13/16 . . of a toner pattern, e.g. a powder pattern
- 13/18 . . of a charge pattern

- 13/20 . Fixing, e.g. by using heat
  - 13/22 . Processes involving a combination of more than one step according to groups [G03G 13/02](#) - [G03G 13/20](#) ([G03G 13/01](#) takes precedence)
  - 13/23 . . specially adapted for copying both sides of an original or for copying on both sides of a recording or image-receiving material
  - 13/24 . . whereby at least two steps are performed simultaneously
  - 13/26 . for the production of printing plates for non-xerographic printing processes
  - 13/28 . . Planographic printing plates
  - 13/283 . . . {obtained by a process including the transfer of a toned image, i.e. indirect process}
  - 13/286 . . . {for dry lithography}
  - 13/30 . . Hectographic masters
  - 13/32 . . Relief printing plates
  - 13/34 . Editing, i.e. producing a composite image by copying one or more original images or parts thereof
  - 15/00 Apparatus for electrographic processes using a charge pattern** ([G03G 16/00](#), [G03G 17/00](#) take precedence ; xerographic printers for data processors per se [G06K 15/14](#))
  - 15/01 . for producing multicoloured copies {(colour correction in photography [G03C](#); colour correction in printing plate production)}
  - 15/0105 . . {Details of unit}
  - 15/011 . . . {for exposing}
  - 15/0115 . . . . {and forming a half-tone image}
  - 15/0121 . . . {for developing}
  - 15/0126 . . . {using a solid developer}
  - 15/0131 . . . {for transferring a pattern to a second base}
  - 15/0136 . . . . {transfer member separable from recording member or vice versa, mode switching}
  - 15/0142 . . {Structure of complete machines}
  - 15/0147 . . . {using a single reusable electrographic recording member}
  - 15/0152 . . . . {onto which the monocolour toner images are superposed before common transfer from the recording member}
  - 15/0157 . . . . . {with special treatment between monocolour image formation}
  - 15/0163 . . . . . {primary transfer to the final recording medium}
  - 15/0168 . . . . . {single rotation of recording member to produce multicoloured copy ([G03G 15/0163](#) takes precedence)}
  - 15/0173 . . . . . {plural rotations of recording member to produce multicoloured copy, e.g. rotating set of developing units ([G03G 15/0163](#) takes precedence)}
  - 15/0178 . . . {using more than one reusable electrographic recording member, e.g. one for every monocolour image}
  - 15/0184 . . . . {at least one recording member having plural associated developing units}
  - 15/0189 . . . . {primary transfer to an intermediate transfer belt ([G03G 15/0184](#) takes precedence)}
  - 15/0194 . . . . {primary transfer to the final recording medium ([G03G 15/0184](#) takes precedence)}
  - 15/02 . for laying down a uniform charge, e.g. for sensitising; Corona discharge devices ([G03G 15/14](#) takes precedence)
  - 15/0208 . . {by contact, friction or induction, e.g. liquid charging apparatus}
  - 15/0216 . . . {by bringing a charging member into contact with the member to be charged, e.g. roller, brush chargers}
  - 15/0225 . . . . {provided with means for cleaning the charging member}
  - 15/0233 . . . . {Structure, details of the charging member, e.g. chemical composition, surface properties}
  - 15/0241 . . . {by bringing charging powder particles into contact with the member to be charged, e.g. by means of a magnetic brush}
  - 15/025 . . . {by bringing a charging member in the vicinity with the member to be charged, e.g. proximity charging, forming microgap}
  - 15/0258 . . {provided with means for the maintenance of the charging apparatus, e.g. cleaning devices, ozone removing devices [G03G 15/0225](#), [G03G 15/0291](#) takes precedence}
  - 15/0266 . . {Arrangements for controlling the amount of charge}
  - 15/0275 . . {Arrangements for controlling the area of the photoconductor to be charged}
  - 15/0283 . . {Arrangements for supplying power to the sensitising device}
  - 15/0291 . . {corona discharge devices, e.g. wires, pointed electrodes, means for cleaning the corona discharge device}
  - 15/04 . for exposing, i.e. imagewise exposure by optically projecting the original image on a photoconductive recording material
- NOTE**
- The original image is obtained by direct optical projection or received from other sources, e.g. by computer modified or generated image data, by scanning , e.g. digital copiers
- 15/04009 . . {by forming an intermediate temporary image projected one or more times}
  - 15/04018 . . {Image composition, e.g. adding or superposing informations on the original image ([composition of facsimile picture signals H04N 1/387](#))}
  - 15/04027 . . {and forming half-tone image}
  - 15/04036 . . {Details of illuminating systems, e.g. lamps, reflectors ([lamp housings for copying cameras, reflex exposure lighting G03B 27/542](#))}
  - 15/04045 . . . {for exposing image information provided otherwise than by directly projecting the original image onto the photoconductive recording material, e.g. digital copiers ([G03G 15/041](#), [G03G 15/043](#) take precedence)}
  - 15/04054 . . . . {by LED arrays}
  - 15/04063 . . . . {by EL-bars}
  - 15/04072 . . . . {by laser}
  - 15/04081 . . . {Exposure from behind the photoconductive surface}
  - 15/0409 . . {Details of projection optics ([for projection printing apparatus G03B 27/522](#))}
  - 15/041 . . with variable magnification



15/0415	. . . {and means for controlling illumination or exposure}	15/0851	. . . . . {the concentration being measured by electrical means}
15/043	. . with means for controlling illumination or exposure ( <a href="#">G03G 15/041 takes precedence</a> )	15/0853	. . . . . {the concentration being measured by magnetic means}
15/0435	. . . {by introducing an optical element in the optical path, e.g. a filter}	15/0855	. . . . . {the concentration being measured by optical means}
15/045	. . with means for charging or discharging distinct portions of the charge pattern on the recording material, e.g. for contrast enhancement or discharging non-image areas ( <a href="#">G03G 15/36</a> , <a href="#">G03G 21/06 take precedence</a> )	15/0856	. . . . . {Detection or control means for the developer level}
15/047	. . . for discharging non-image areas	15/0858	. . . . . {the level being measured by mechanical means}
15/05	. for imagewise charging, e.g. photoconductive control screen, optically activated charging means ( <a href="#">charging means controlled by electric image signals B41J</a> )	15/086	. . . . . {the level being measured by electro-magnetic means}
15/051	. . {by modulating an ion flow through a photoconductive screen onto which a charge image has been formed}	15/0862	. . . . . {the level being measured by optical means}
15/052	. . . {Details and conditioning means of the screen, e.g. cleaning means, ozone removing means}	15/0863	. . . . {provided with identifying means or means for storing process- or use parameters, e.g. an electronic memory}
15/054	. using X-rays, e.g. electroradiography	15/0865	. . . . {Arrangements for supplying new developer}
15/0545	. . {Ionography, i.e. X-rays induced liquid or gas discharge}	15/0867	. . . . . {cylindrical developer cartridges, e.g. toner bottles for the developer replenishing opening}
15/056	. using internal polarisation	15/0868	. . . . . {Toner cartridges fulfilling a continuous function within the electrographic apparatus during the use of the supplied developer material, e.g. toner discharge on demand, storing residual toner, acting as an active closure for the developer replenishing opening}
15/06	. for developing	15/087	. . . . . {Developer cartridges having a longitudinal rotational axis, around which at least one part is rotated when mounting or using the cartridge}
15/065	. . {Arrangements for controlling the potential of the developing electrode}	15/0872	. . . . . {the developer cartridges being generally horizontally mounted parallel to its longitudinal rotational axis}
15/08	. . using a solid developer, e.g. powder developer	15/0874	. . . . . {non-rigid containers, e.g. foldable cartridges, bags}
15/0801	. . . {for cascading}	15/0875	. . . . . {cartridges having a box like shape}
15/0803	. . . {in a powder cloud}	15/0877	. . . . {Arrangements for metering and dispensing developer from a developer cartridge into the development unit}
15/0805	. . . {on a brush ( <a href="#">G03G 15/09 takes precedence</a> )}	15/0879	. . . . . {for dispensing developer from a developer cartridge not directly attached to the development unit}
15/0806	. . . {on a donor element, e.g. belt, roller ( <a href="#">complete developer unit G03G 15/0896</a> )}	15/0881	. . . . . {Sealing of developer cartridges}
15/0808	. . . . {characterised by the developer supplying means, e.g. structure of developer supply roller}	15/0882	. . . . . {by a peelable sealing film ( <a href="#">resealing used developer units before refilling: G03G 15/0894</a> )}
15/081	. . . . {characterised by the developer handling means after the supply and before the regulating, e.g. means for preventing developer blocking}	15/0884	. . . . . {by a sealing film to be ruptured or cut}
15/0812	. . . . {characterised by the developer regulating means, e.g. structure of doctor blade}	15/0886	. . . . . {by mechanical means, e.g. shutter, plug}
15/0813	. . . . {characterised by means in the developing zone having an interaction with the image carrying member, e.g. distance holders}	15/0887	. . . . {Arrangements for conveying and conditioning developer in the developing unit, e.g. agitating, removing impurities or humidity}
15/0815	. . . . {characterised by the developer handling means after the developing zone and before the supply, e.g. developer recovering roller}	15/0889	. . . . . {for agitation or stirring}
15/0817	. . . . {characterised by the lateral sealing at both sides of the donor member with respect to the developer carrying direction}	15/0891	. . . . . {for conveying or circulating developer, e.g. augers}
15/0818	. . . . {characterised by the structure of the donor member, e.g. surface properties}	15/0893	. . . . . {in a closed loop within the sump of the developing device}
15/082	. . . {for immersion}	15/0894	. . . {Reconditioning of the developer unit, i.e. reusing or recycling parts of the unit, e.g. resealing of the unit before refilling with toner}
15/0822	. . . {Arrangements for preparing, mixing, supplying or dispensing developer}		
15/0844	. . . . {Arrangements for purging used developer from the developing unit}		
15/0848	. . . . {Arrangements for testing or measuring developer properties or quality, e.g. charge, size, flowability}		
15/0849	. . . . . {Detection or control means for the developer concentration}		

- 15/0896 . . . {Arrangements or disposition of the complete developer unit or parts thereof not provided for by groups [G03G 15/08](#) - [G03G 15/0894](#)}
- 15/0898 . . . . {for preventing toner scattering during operation, e.g. seals ([sealing the donor member G03G 15/0817](#); [sealing the magnetic brush G03G 15/0942](#))}
- 15/09 . . . using magnetic brush
- 15/0907 . . . . {with bias voltage ([G03G 15/065 takes precedence](#))}
- 15/0914 . . . . {with a one-component toner}
- 15/0921 . . . . {Details concerning the magnetic brush roller structure, e.g. magnet configuration}
- 15/0928 . . . . . {relating to the shell, e.g. structure, composition}
- 15/0935 . . . . . {relating to bearings or driving mechanism}
- 15/0942 . . . . {with means for preventing toner scattering from the magnetic brush, e.g. magnetic seals}
- 15/095 . . . Removing excess solid developer {, e.g. fog preventing}
- 15/10 . . using a liquid developer
- 15/101 . . . {for wetting the recording material}
- 15/102 . . . . {for differentially wetting the recording material ([developers for differentially wetting G03G 9/18](#))}
- 15/104 . . . {Preparing, mixing, transporting or dispensing developer}
- 15/105 . . . . {Detection or control means for the toner concentration}
- 15/107 . . . {Condensing developer fumes ([G03G 15/11 takes precedence](#))}
- 15/108 . . . {with which the recording material is brought in contact, e.g. immersion or surface immersion development}
- 15/11 . . . Removing excess liquid developer, e.g. by heat
- 15/14 . for transferring a pattern to a second base
- 15/16 . . of a toner pattern, e.g. a powder pattern {, e.g. magnetic transfer}
- 15/1605 . . . {using at least one intermediate support ([G03G 15/1625 takes precedence](#))}
- 15/161 . . . . {with means for handling the intermediate support, e.g. heating, cleaning, coating with a transfer agent}
- 15/1615 . . . . {relating to the driving mechanism for the intermediate support, e.g. gears, couplings, belt tensioning}
- 15/162 . . . . {details of the the intermediate support, e.g. chemical composition}
- 15/1625 . . . {on a base other than paper}
- 15/163 . . . {using the force produced by an electrostatic transfer field formed between the second base and the electrographic recording member, e.g. transfer through an air gap}
- 15/1635 . . . . {the field being produced by laying down an electrostatic charge behind the base or the recording member, e.g. by a corona device}
- 15/164 . . . . . {the second base being a continuous paper band, e.g. a CFF}
- 15/1645 . . . . . {Arrangements for controlling the amount of charge}
- 15/165 . . . . . {Arrangements for supporting or transporting the second base in the transfer area, e.g. guides}
- 15/1655 . . . . . {comprising a rotatable holding member to which the second base is attached or attracted, e.g. screen transfer holding drum}
- 15/166 . . . . . . {with means for conditioning the holding member, e.g. cleaning}
- 15/1665 . . . {by introducing the second base in the nip formed by the recording member and at least one transfer member, e.g. in combination with bias or heat}
- 15/167 . . . . {at least one of the recording member or the transfer member being rotatable during the transfer}
- 15/1675 . . . . . {with means for controlling the bias applied in the transfer nip}
- 15/168 . . . . . {with means for conditioning the transfer element, e.g. cleaning}
- 15/1685 . . . . . {Structure, details of the transfer member, e.g. chemical composition}
- 15/169 . . . {with means for preconditioning the toner image before the transfer ([G03G 15/095 and G03G 15/11 take precedence](#))}
- 15/1695 . . . {with means for preconditioning the paper base before the transfer}
- 15/18 . . of a charge pattern
- 15/20 . for fixing, e.g. by using heat
- 15/2003 . . {using heat}
- 15/2007 . . . {using radiant heat, e.g. infra-red lamps, microwave heaters}
- 15/201 . . . . {of high intensity and short duration, i.e. flash fusing}
- 15/2014 . . . {using contact heat}
- 15/2017 . . . . {Structural details of the fixing unit in general, e.g. cooling means, heat shielding means ([G03G 15/2053 takes precedence](#))}
- 15/2021 . . . . . {Plurality of separate fixing and/or cooling areas or units, two step fixing}
- 15/2025 . . . . . {with special means for lubricating and/or cleaning the fixing unit, e.g. applying offset preventing fluid}
- 15/2028 . . . . . {with means for handling the copy material in the fixing nip, e.g. introduction guides, stripping means}
- 15/2032 . . . . . {Retractable heating or pressure unit}
- 15/2035 . . . . . {for maintenance purposes, e.g. for removing a jammed sheet}
- 15/2039 . . . . {with means for controlling the fixing temperature}
- 15/2042 . . . . . {specially for the axial heat partition}
- 15/2046 . . . . . {specially for the influence of heat loss, e.g. due to the contact with the copy material or other roller}
- 15/205 . . . . . {specially for the mode of operation, e.g. standby, warming-up, error ([G03G 15/2046 takes precedence](#))}
- 15/2053 . . . . {Structural details of heat elements, e.g. structure of roller or belt, eddy current, induction heating}
- 15/2057 . . . . . {relating to the chemical composition of the heat element and layers thereof}

- 15/206 . . . . {Structural details or chemical composition of the pressure elements and layers thereof}
- 15/2064 . . . . {combined with pressure}
- 15/2092 . . {using pressure only}
- 15/2096 . . {using a solvent}
- 15/2098 . . {using light, e.g. UV photohardening}
- 15/22 . involving the combination of more than one step according to groups [G03G 13/02](#) - [G03G 13/20](#) ([G03G 15/01](#) takes precedence)
- 15/221 . . {Machines other than electrographic copiers, e.g. electrophotographic cameras, electrostatic typewriters}
- 15/222 . . . {Machines for handling xeroradiographic images, e.g. xeroradiographic processors}
- 15/223 . . . {Machines for handling microimages, e.g. microfilm copiers}
- 15/224 . . . {Machines for forming tactile or three dimensional images by electrographic means, e.g. braille, 3d printing}
- 15/225 . . {using contact-printing}
- 15/226 . . {where the image is formed on a dielectric layer covering the photoconductive layer}
- 15/227 . . . {the length of the inner surface of the dielectric layer being greater than the length of the outer surface of the photoconductive layer}
- 15/228 . . {the process involving the formation of a master, e.g. photocopy-printer machines}
- 15/23 . . specially adapted for copying both sides of an original or for copying on both sides of a recording or image-receiving material
- 15/231 . . . {Arrangements for copying on both sides of a recording or image-receiving material}
- 15/232 . . . . {using a single reusable electrographic recording member}
- 15/234 . . . . . {by inverting and refeeding the image receiving material with an image on one face to the recording member to transfer a second image on its second face, e.g. by using a duplex tray; Details of duplex trays or inverters}
- 15/235 . . . . . {the image receiving member being preconditioned before transferring the second image, e.g. decurled, or the second image being formed with different operating parameters, e.g. a different fixing temperature}
- 15/237 . . . . . {the image receiving member being in form of a continuous web ([G03G 15/235](#) takes precedence)}
- 15/238 . . . . {using more than one reusable electrographic recording member, e.g. single pass duplex copiers}
- 15/24 . . whereby at least two steps are performed simultaneously
- 15/26 . . in which the charge pattern is obtained by projection of the entire image, i.e. whole-frame projection ([G03G 15/04](#) takes precedence)
- 15/263 . . . {using a reusable recording medium in form of a band}
- 15/266 . . . {using a reusable recording medium in form of a plate or a sheet}
- 15/28 . . in which projection is obtained by line scanning ([G03G 15/04](#) takes precedence)
- 15/283 . . . {using a reusable recording medium in form of a band}
- 15/286 . . . {using a reusable recording medium in form of a plate or a sheet}
- 15/30 . . . in which projection is formed on a drum
- 15/302 . . . . {with arrangements for copying different kinds of originals, e.g. sheets, books}
- 15/305 . . . . {with special means to synchronize the scanning optic to the operation of other parts of the machine, e.g. photoreceptor, copy paper}
- 15/307 . . . . {with more than one photoconductor revolution for each copying cycle}
- 15/32 . . in which the charge pattern is formed dotwise, {e.g. by a thermal head} ([G03G 15/04](#), [G03G 15/05](#), [G03G 15/34](#) take precedence)
- 15/321 . . . {by charge transfer onto the recording material in accordance with the image}
- 15/323 . . . . {by modulating charged particles through holes or a slit}
- 15/325 . . . . {using a stylus or a multi-styli array}
- 15/326 . . . {by application of light, e.g. using a LED array}
- 15/328 . . . . {using a CRT}
- 15/34 . . in which the powder image is formed directly on the recording material {, e.g. by using a liquid toner}
- 15/342 . . . {by forming a uniform powder layer and then removing the non-image areas}
- 15/344 . . . {by selectively transferring the powder to the recording medium, e.g. by using a LED array}
- 15/346 . . . . {by modulating the powder through holes or a slit}
- 15/348 . . . . {using a stylus or a multi-styli array}
- 15/36 . Editing, i.e. producing a composite image by copying one or more original images or parts thereof
- 15/50 . {Machine control of apparatus for electrographic processes using a charge pattern, e.g. regulating different parts of the machine, multimode copiers, microprocessor control ([sequencing control G03G 21/14](#))}
- 15/5004 . . {Power supply control, e.g. power-saving mode, automatic power turn-off}
- 15/5008 . . {Driving control for rotary photosensitive medium, e.g. speed control, stop position control}
- 15/5012 . . {Priority interrupt; Job recovery, e.g. after jamming or malfunction}
- 15/5016 . . {User-machine interface; Display panels; Control console}
- 15/502 . . . {relating to the structure of the control menu, e.g. pop-up menus, help screens}
- 15/5025 . . {by measuring the original characteristics, e.g. contrast, density}
- 15/5029 . . {by measuring the copy material characteristics, e.g. weight, thickness}
- 15/5033 . . {by measuring the photoconductor characteristics, e.g. temperature, or the characteristics of an image on the photoconductor}
- 15/5037 . . . {the characteristics being an electrical parameter, e.g. voltage}
- 15/5041 . . . {Detecting a toner image, e.g. density, toner coverage, using a test patch ([G03G 15/553](#) takes precedence)}

- 15/5045 . . . {Detecting the temperature}
- 15/505 . . . {Detecting the speed, e.g. for continuous control of recording starting time}
- 15/5054 . . {by measuring the characteristics of an intermediate image carrying member or the characteristics of an image on an intermediate image carrying member, e.g. intermediate transfer belt or drum, conveyor belt}
- 15/5058 . . . {using a test patch}
- 15/5062 . . {by measuring the characteristics of an image on the copy material}
- 15/5066 . . {by using information from an external support, e.g. magnetic card}
- 15/507 . . . {being interleaved with the original or directly written on the original, e.g. using a control sheet}
- 15/5075 . . {Remote control machines, e.g. by a host}
- 15/5079 . . . {for maintenance}
- 15/5083 . . . {for scheduling}
- 15/5087 . . . {for receiving image data}
- 15/5091 . . . {for user-identification or authorisation}
- 15/5095 . . {Matching the image with the size of the copy material, e.g. by calculating the magnification or selecting the adequate copy material size}
- 15/55 . {Self-diagnostics; Malfunction or lifetime display}
- 15/553 . . {Monitoring or warning means for exhaustion or lifetime end of consumables, e.g. indication of insufficient copy sheet quantity for a job}
- 15/556 . . . {for toner consumption, e.g. pixel counting, toner coverage detection or toner density measurement}
- 15/60 . {Apparatus which relate to the handling of originals (for photographic purposes in general [G03B](#))}
- 15/602 . . {for transporting}
- 15/605 . . {Holders for originals or exposure platens (for photographic purposes in general [G03B](#))}
- 15/607 . . {for detecting size, presence or position of original}
- 15/65 . {Apparatus which relate to the handling of copy material (handling sheets or webs in general [B65H](#); for photographic purposes in general [G03B](#))}
- 15/6502 . . {Supplying of sheet copy material; Cassettes therefor}
- 15/6505 . . . {for copy sheets in ream}
- 15/6508 . . . {Automatic supply devices interacting with the rest of the apparatus, e.g. selection of a specific cassette (matching the image with the size of the copy material [G03G 15/5095](#))}
- 15/6511 . . . {Feeding devices for picking up or separation of copy sheets}
- 15/6514 . . . {Manual supply devices}
- 15/6517 . . {Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders therefor}
- 15/652 . . . {Feeding a copy material originating from a continuous web roll}
- 15/6523 . . . {Cutting}
- 15/6526 . . . {Computer form folded [CFF] continuous web, e.g. having sprocket holes or perforations}
- 15/6529 . . {Transporting ([G03G 15/6555](#) takes precedence)}
- 15/6532 . . {Removing a copy sheet from a xerographic drum, band or plate (removing sheets from printing cylinders [B65H 29/02](#))}
- 15/6535 . . . {using electrostatic means, e.g. a separating corona}
- 15/6538 . . {Devices for collating sheet copy material, e.g. sorters, control, copies in staples form}
- 15/6541 . . . {Binding sets of sheets, e.g. by stapling, glueing}
- 15/6544 . . . . {Details about the binding means or procedure}
- 15/6547 . . . {Shifting sets of sheets in the discharge tray}
- 15/655 . . . {Placing job divider sheet between set of sheets}
- 15/6552 . . {Means for discharging uncollated sheet copy material, e.g. discharging rollers, exit trays}
- 15/6555 . . {Handling of sheet copy material taking place in a specific part of the copy material feeding path}
- 15/6558 . . . {Feeding path after the copy sheet preparation and up to the transfer point, e.g. registering; Deskewing; Correct timing of sheet feeding to the transfer point}
- 15/6561 . . . . {for sheet registration}
- 15/6564 . . . . . {with correct timing of sheet feeding}
- 15/6567 . . . . {for deskewing or aligning}
- 15/657 . . . {Feeding path after the transfer point and up to the fixing point, e.g. guides and feeding means for handling copy material carrying an unfused toner image}
- 15/6573 . . . {Feeding path after the fixing point and up to the discharge tray or the finisher, e.g. special treatment of copy material to compensate for effects from the fixing}
- 15/6576 . . . . {Decurling of sheet material}
- 15/6579 . . . {Refeeding path for composite copying}
- 15/6582 . . {Special processing for irreversibly adding or changing the sheet copy material characteristics or its appearance, e.g. stamping, annotation printing, punching}
- 15/6585 . . . {by using non-standard toners, e.g. transparent toner, gloss adding devices}
- 15/6588 . . {characterised by the copy material, e.g. postcards, large copies, multi-layered materials, coloured sheet material}
- 15/6591 . . . {characterised by the recording material, e.g. plastic material, OHP, ceramics, tiles, textiles (details transferring the toner pattern onto particular materials [G03G 15/1625](#))}
- 15/6594 . . . {characterised by the format or the thickness, e.g. endless forms}
- 15/6597 . . {the imaging being conformed directly on the copy material, e.g. using photosensitive copy material, dielectric copy material for electrostatic printing}
- 15/70 . {Detecting malfunctions relating to paper handling, e.g. jams}
- 15/703 . . {Detecting multiple sheets}
- 15/706 . . {Detecting missed stripping from xerographic drum, band or plate}
- 15/75 . {Details relating to xerographic drum, band or plate, e.g. replacing, testing (electrographic recording members per se [G03G 5/00](#))}
- 15/751 . . {relating to drum ([G03G 15/757](#) takes precedence)}
- 15/752 . . . {with renewable photoconductive layer}
- 15/754 . . {relating to band, e.g. tensioning ([G03G 15/757](#) takes precedence)}



- 15/755 . . . {for maintaining the lateral alignment of the band}
- 15/757 . . {Drive mechanisms for photosensitive medium, e.g. gears}
- 15/758 . . {relating to plate or sheet}
- 15/80 . {Details relating to power supplies, circuits boards, electrical connections}
- 16/00 Electrographic processes using deformation of thermoplastic layers (layers for surface-deformation imaging [G03G 5/022](#)); Apparatus therefor {(shaping of plastic objects with thermoplastic memory effect [B29C 61/00](#); digital stores using thermoplastic elements [G11C 11/46](#); television signal recording using deformable thermoplastic recording medium [H04N 5/82](#))}**
- 17/00 Electrographic processes using patterns other than charge patterns, e.g. an electric conductivity pattern; Processes involving a migration, e.g. photoelectrophoresis, photoelectrosolography; Processes involving a selective transfer, e.g. electrophoto-adhesive processes; Apparatus essentially involving a single such process**
- 17/005 . {Radiation field photography, e.g. Kirlian photography, colour-discharge photography (recording electrical waveforms in general [G01R 13/04](#), e.g. [G01R 13/12](#) - [G01R 13/14](#))}
- 17/02 . with electrolytic development
- 17/04 . using photoelectrophoresis
- 17/06 . . Apparatus therefor
- 17/08 . using an electrophoto-adhesive process, e.g. manifold imaging
- 17/10 . using migration imaging, e.g. photoelectrosolography ([G03G 17/04](#) takes precedence)
- 19/00 Processes using magnetic patterns; Apparatus therefor {, i.e. magnetography}**
- NOTE**
- This group comprises also processes and apparatus wherein magnetography and electrography are combined; magnetographic printing apparatus for data processing machines [G06K 15/14](#); recording members therefor [G03G 5/00](#); magnetic recording members for television [G11B](#); recording of sound [G11B](#); recording of electric measurements [G01R 13/00](#); recording apparatus for measurements in general [G01D](#)
- 19/005 . {where the image is formed by selective demagnetizing, e.g. thermomagnetic recording}
- 21/00 Arrangements not provided for by groups [G03G 13/00](#) - [G03G 19/00](#), e.g. cleaning, elimination of residual charge**
- 21/0005 . {for removing solid developer or debris from the electrographic recording medium}
- 21/0011 . . {using a blade; Details of cleaning blades, e.g. blade shape, layer forming}
- 21/0017 . . . {Details relating to the internal structure or chemical composition of the blades}
- 21/0023 . . . {with electric bias}
- 21/0029 . . . {Details relating to the blade support}
- 21/0035 . . {using a brush; Details of cleaning brushes, e.g. fibre density ([G03G 21/0064](#) takes precedence; magnetic brushes [G03G 21/0047](#))}
- 21/0041 . . {using a band; Details of cleaning bands, e.g. band winding}
- 21/0047 . . {using electrostatic or magnetic means; Details thereof, e.g. magnetic pole arrangement of magnetic devices ([G03G 21/0064](#) takes precedence)}
- 21/0052 . . {using an air flow; Details thereof, e.g. nozzle structure}
- 21/0058 . . {using a roller or a polygonal rotating cleaning member; Details thereof, e.g. surface structure ([G03G 21/0064](#) takes precedence)}
- 21/0064 . . {using the developing unit, e.g. cleanerless or multi-cycle apparatus}
- 21/007 . . {Arrangement or disposition of parts of the cleaning unit}
- 21/0076 . . . {Plural or sequential cleaning devices}
- 21/0082 . . . . {Separate cleaning member for toner and debris}
- 21/0088 . {removing liquid developer}
- 21/0094 . {fatigue treatment of the photoconductor}
- 21/02 . Counting the number of copies; Billing
- 21/04 . Preventing copies being made of an original
- 21/043 . . {by using an original which is not reproducible or only reproducible with a different appearance, e.g. originals with a photochromic layer or a colour background}
- 21/046 . . {by discriminating a special original, e.g. a bank note}
- 21/06 . Eliminating residual charges from a reusable imaging member
- 21/08 . . using optical radiation
- 21/10 . Collecting or recycling waste developer
- 21/105 . . {Arrangements for conveying toner waste}
- 21/12 . . Toner waste containers
- 21/14 . Electronic sequencing control
- 21/145 . . {wherein control pulses are generated by the mechanical movement of parts of the machine, e.g. the photoconductor}
- 21/16 . Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements
- 21/1604 . . {Arrangement or disposition of the entire apparatus}
- 21/1609 . . . {for space saving, e.g. structural arrangements}
- 21/1614 . . . {Measures for handling of apparatus by disabled persons}
- 21/1619 . . . {Frame structures}
- 21/1623 . . . {Means to access the interior of the apparatus}
- 21/1628 . . . . {Clamshell type ([G03G 21/1638](#) takes precedence)}
- 21/1633 . . . . {using doors or covers ([G03G 21/1638](#) takes precedence)}
- 21/1638 . . . . {directed to paper handling or jam treatment}
- 21/1642 . . {for connecting the different parts of the apparatus}
- 21/1647 . . . {Mechanical connection means}
- 21/1652 . . . {Electrical connection means}
- 21/1657 . . . {Wireless connection means, e.g. RFID}
- 21/1661 . . {means for handling parts of the apparatus in the apparatus ([G03G 21/1604](#), [G03G 21/1642](#) take precedence)}



21/1666	. . . {for the exposure unit}	21/1885	. . . . . {position of the memory; memory housings; electrodes}
21/1671	. . . {for the photosensitive element}	21/1889	. . . . . {for auto-setting of process parameters, lifetime, usage}
21/1676	. . . {for the developer unit}	21/1892	. . . . . {for presence detection, authentication}
21/168	. . . {for the transfer unit}	21/1896	. . . . . {mechanical or optical identification means, e.g. protrusions, bar codes}
21/1685	. . . {for the fixing unit}	21/20	. Humidity or temperature control {also ozone evacuation; Internal apparatus environment control}
21/169	. . . {for the cleaning unit}	21/203	. . {Humidity}
21/1695	. . . {for paper transport}	21/206	. . {Conducting air through the machine, e.g. for cooling, filtering, removing gases like ozone}
21/18	. . using a processing cartridge {, whereby the process cartridge comprises at least two image processing means in a single unit}		
21/1803	. . . {Arrangements or disposition of the complete process cartridge or parts thereof}	<b>2215/00</b>	<b>Apparatus for electrophotographic processes</b>
21/1807	. . . . {colour}	2215/00004	. Handling of entire apparatus
21/181	. . . . {Manufacturing or assembling, recycling, reuse, transportation, packaging or storage}	2215/00008	. . Upright positioning for maintenance or storage
21/1814	. . . . {Details of parts of process cartridge, e.g. for charging, transfer, cleaning, developing (G03G 21/1835 takes precedence)}	2215/00012	. . Upright positioning as well as horizontal positioning for image forming
21/1817	. . . . {having a submodular arrangement}	2215/00016	. Special arrangement of entire apparatus
21/1821	. . . . . {means for connecting the different parts of the process cartridge, e.g. attachment, positioning of parts with each other, pressure/distance regulation (G03G 21/1825 takes precedence)}	2215/00021	. . Plural substantially independent image forming units in cooperation, e.g. for duplex, colour or high-speed simplex
21/1825	. . . . . {Pivotable subunit connection}	2215/00025	. Machine control, e.g. regulating different parts of the machine
21/1828	. . . . {Prevention of damage or soiling, e.g. mechanical abrasion (G03G 21/1839 takes precedence)}	2215/00029	. . Image density detection
21/1832	. . . . . {Shielding members, shutter, e.g. light, heat shielding, prevention of toner scattering}	2215/00033	. . . on recording member
21/1835	. . . . {the process cartridge not comprising a photosensitive member}	2215/00037	. . . . Toner image detection
21/1839	. . . {Means for handling the process cartridge in the apparatus body}	2215/00042	. . . . . Optical detection
21/1842	. . . . {for guiding and mounting the process cartridge, positioning, alignment, locks (G03G 21/1864 and G03G 21/1871 take precedence)}	2215/00046	. . . . . Magnetical detection
21/1846	. . . . . {using a handle for carrying or pulling out of the main machine, legs of casings}	2215/0005	. . . . . without production of a specific test patch
21/185	. . . . . {the process cartridge being mounted parallel to the axis of the photosensitive member}	2215/00054	. . . . . Electrostatic image detection
21/1853	. . . . . {the process cartridge being mounted perpendicular to the axis of the photosensitive member}	2215/00059	. . . on intermediate image carrying member, e.g. transfer belt
21/1857	. . . . {for transmitting mechanical drive power to the process cartridge, drive mechanisms, gears, couplings, braking mechanisms}	2215/00063	. . . Colour
21/186	. . . . . {Axial couplings}	2215/00067	. . . on recording medium
21/1864	. . . . . {associated with a positioning function}	2215/00071	. . by measuring the photoconductor or its environmental characteristics
21/1867	. . . . {for electrically connecting the process cartridge to the apparatus, electrical connectors, power supply}	2215/00075	. . . the characteristic being its speed
21/1871	. . . . . {associated with a positioning function}	2215/0008	. . . . for continuous control of recording starting time
21/1875	. . . {provided with identifying means or means for storing process- or use parameters, e.g. lifetime of the cartridge}	2215/00084	. . . the characteristic being the temperature
21/1878	. . . . {Electronically readable memory}	2215/00088	. . by using information from an external support
21/1882	. . . . . {details of the communication with memory, e.g. wireless communication, protocols}	2215/00092	. . . the support being an IC card
		2215/00097	. . . the support being a counter
		2215/00101	. . . the support being a magnetic card
		2215/00105	. . . the support being a payment means, e.g. a coin
		2215/00109	. . Remote control of apparatus, e.g. by a host
		2215/00113	. . . Plurality of apparatus configured in groups each with its own host
		2215/00118	. . using fuzzy logic
		2215/00122	. . using speech synthesis or voice recognition
		2215/00126	. . Multi-job machines
		2215/0013	. . for producing copies with MICR
		2215/00135	. Handling of parts of the apparatus
		2215/00139	. . Belt
		2215/00143	. . . Meandering prevention
		2215/00147	. . . . using tractor sprocket holes
		2215/00151	. . . . using edge limitations
		2215/00156	. . . . by controlling drive mechanism
		2215/0016	. . . . by mark detection, e.g. optical
		2215/00164	. . . . by electronic scan control
		2215/00168	. . . . by friction
		2215/00172	. relative to the original handling

2215/00177	. . .	for scanning	2215/00392	. . . .	Manual input tray
2215/00181	. . .	concerning the original's state of motion	2215/00396	. . .	Pick-up device
2215/00185	. . . .	original at rest	2215/004	. . .	Separation device
2215/00189	. . . .	original moving	2215/00405	. . .	Registration device
2215/00194	. . . .	original either moving or at rest	2215/00409	. . .	Transfer device
2215/00198	. . . . .	where one single scanning surface is used	2215/00413	. . .	Fixing device
2215/00202	. . . . .	where separate scanning surfaces are used	2215/00417	. . .	Post-fixing device
2215/00206	. .	Original medium	2215/00421	. . . .	Discharging tray, e.g. devices stabilising the quality of the copy medium, postfixing-treatment, inverting, sorting
2215/0021	. . .	Plural types handled	2215/00426	. . . .	Post-treatment device adding qualities to the copy medium product ( <a href="#">G03G 2215/00421 takes precedence</a> )
2215/00215	. . . .	Mixed types handled	2215/0043	. . . .	Refeeding path ( <a href="#">G03G 2215/00421 takes precedence</a> )
2215/00219	. . .	Paper	2215/00434	. . . . .	Refeeding tray or cassette
2215/00223	. . . .	Continuous web, i.e. roll	2215/00438	. . . . .	Inverter of refeding path
2215/00227	. . . . .	Fan fold, e.g. CFF, normally perforated	2215/00443	. .	Copy medium
2215/00232	. . . .	Non-standard format	2215/00447	. . .	Plural types handled
2215/00236	. . . . .	Large sized, e.g. technical plans	2215/00451	. . .	Paper
2215/0024	. . . . .	Small sized, e.g. postcards	2215/00455	. . . .	Continuous web, i.e. roll
2215/00244	. . . .	Non-standard property	2215/00459	. . . . .	Fan fold, e.g. CFF, normally perforated
2215/00248	. . . . .	Thick	2215/00464	. . . .	Non-standard format
2215/00253	. . . . .	Thin	2215/00468	. . . . .	Large sized, e.g. technical plans
2215/00257	. . . . .	coloured	2215/00472	. . . . .	Small sized, e.g. postcards
2215/00261	. . .	Plastic	2215/00476	. . . .	Non-standard property
2215/00265	. . . .	Overhead Transparency, i.e. OHP	2215/00481	. . . . .	Thick
2215/0027	. . . .	Transparent film roll	2215/00485	. . . . .	Thin
2215/00274	. . . .	Slide	2215/00489	. . . . .	coloured
2215/00278	. . . .	Microfiche	2215/00493	. . .	Plastic
2215/00282	. . .	Book	2215/00497	. . . .	Overhead Transparency, i.e. OHP
2215/00286	. . .	With punch holes or other non-image related artifacts, e.g. staples	2215/00502	. . . .	Transparent film
2215/00291	. . .	Fragile, e.g. old documents	2215/00506	. . . .	Slide
2215/00295	. . .	Valuable, e.g. cheques, passport	2215/0051	. . . .	Microfiche
2215/00299	. . .	Confidential, e.g. secret documents	2215/00514	. . .	Envelopes
2215/00303	. . .	Control sheet	2215/00518	. . .	Recording medium, e.g. photosensitive
2215/00308	. . .	Object for which a graphic image is not of interest, e.g. medical sample	2215/00523	. . .	Other special types, e.g. tabbed
2215/00312	. . .	Other special types	2215/00527	. . . .	Fabrics, e.g. textiles
2215/00316	. . .	Electronic image supplied to the apparatus	2215/00531	. . .	transported through the apparatus for non-imaging purposes, e.g. cleaning
2215/0032	. .	Original binding	2215/00535	. .	Stable handling of copy medium
2215/00324	. .	Document property detectors	2215/0054	. . .	Detachable element of feed path
2215/00329	. . .	Document size detectors	2215/00544	. . .	Openable part of feed path
2215/00333	. . . .	detecting feeding of documents	2215/00548	. . .	Jam, error detection, e.g. double feeding
2215/00337	. .	Document set detector	2215/00552	. . . .	Purge of recording medium at jam
2215/00341	. .	Jam handling in document feeder	2215/00556	. . .	Control of copy medium feeding
2215/00345	. . .	Copying machine problems	2215/00561	. . . .	Aligning or deskewing
2215/0035	. . .	Document related problems, e.g. double-fed sheets	2215/00565	. . . . .	Mechanical details
2215/00354	. .	Specific document handling machines	2215/00569	. . . .	Calibration, test runs, test prints
2215/00358	. . .	Plural feed trays for document sets, e.g. multi-job	2215/00573	. . . .	Recording medium stripping from image forming member
2215/00362	. relating to the copy medium handling		2215/00578	. . . .	Composite print mode
2215/00367	. .	The feeding path segment where particular handling of the copy medium occurs, segments being adjacent and non-overlapping. Each segment is identified by the most downstream point in the segment, so that for instance the segment labelled "Fixing device" is referring to the path between the "Transfer device" and the "Fixing device"	2215/00582	. . . . .	Plural adjacent images on one side
2215/00371	. . .	General use over the entire feeding path	2215/00586	. . . .	duplex mode
2215/00375	. . .	Package, e.g. a ream	2215/0059	. . . .	Effect of changed recording medium size, e.g. originating from heating
2215/00379	. . .	Copy medium holder	2215/00594	. . . .	Varying registration in order to produce special effect, e.g. binding margin
2215/00383	. . . .	Cassette	2215/00599	. . . .	Timing, synchronisation
2215/00388	. . . . .	rotatable	2215/00603	. . .	Control of other part of the apparatus according to the state of copy medium feeding
			2215/00607	. . .	Debris handling means

2215/00611	. . .	Detector details, e.g. optical detector	2215/00852	. . . .	Temporary binding
2215/00616	. . . .	Optical detector	2215/00856	. . . .	External binding device
2215/0062	. . . . .	infra-red	2215/0086	. . . .	Manual activation of binding
2215/00624	. . . .	Magnetic detector or switch, e.g. reed switch	2215/00864	. . . .	Plural selectable binding modes
2215/00628	. . . .	Mechanical detector or switch	2215/00869	. . .	Cover sheet adding means
2215/00632	. . . .	Electric detector, e.g. of voltage or current	2215/00873	. . .	Tape adding means
2215/00637	. . . .	Acoustic detector	2215/00877	. . .	Folding device
2215/00641	. . . .	Pneumatic detector	2215/00881	. . .	Magnetic information
2215/00645	. . . .	Speedometer	2215/00886	. .	Sorting or discharging
2215/00649	. . .	Electrodes close to the copy feeding path	2215/0089	. . .	Shifting jobs
2215/00654	. . .	Charging device	2215/00894	. . .	Placing job divider sheet
2215/00658	. . .	Brush ( <a href="#">G03G 2215/00654 takes precedence</a> )	2215/00898	. . .	Mechanical separator between jobs
2215/00662	. . .	Decurling device	2215/00902	. . .	Sorting marks of jobs, e.g. on the sheet edges
2215/00666	. . .	Heating or drying device	2215/00907	. . .	Electronically addressable mailing bins
2215/0067	. . .	Damping device	2215/00911	. . .	Detection of copy amount or presence in discharge tray
2215/00675	. . .	Mechanical copy medium guiding means, e.g. mechanical switch	2215/00915	. . . .	Detection of weight of copies
2215/00679	. . .	Conveying means details, e.g. roller	2215/00919	. .	Special copy medium handling apparatus
2215/00683	. . . .	Chemical properties	2215/00924	. . .	two or more parallel feed paths
2215/00687	. . .	Handling details	2215/00928	. . .	Copies and originals use a common part of the copy medium handling apparatus
2215/00691	. . . .	Shredder	2215/00932	. . .	Security copies
2215/00696	. . . .	Turner acting in plane of recording medium, e.g. A4 to A4R change	2215/00936	. . .	Bookbinding
2215/007	. . . .	Inverter not for refeeding purposes	2215/0094	. . .	Copy produced and used as original
2215/00704	. . . .	Curl adding, bending	2215/00945	. . .	Copy material feeding speed varied over the feed path
2215/00708	. . . .	Cleaning of sheet or feeding structures	2215/00949	. . .	Copy material feeding speed switched according to current mode of the apparatus, e.g. colour mode
2215/00713	. . . .	Lock related to feeding device	2215/00953	. .	Electrographic recording members
2215/00717	. . .	Detection of physical properties	2215/00957	. .	Compositions
2215/00721	. . . .	of sheet position	2215/00962	. .	Electrographic apparatus defined by the electrographic recording member
2215/00725	. . . .	of sheet presence in input tray	2215/00966	. . .	Sheet type electrographic recording members from which a toner or charge image is transferred
2215/00729	. . . .	of sheet amount in input tray	2215/0097	. . . .	Sheet cartridge or tray
2215/00734	. . . .	of sheet size	2215/00974	. . .	Electrographic recording member arranged as a carriage to be movable in a direction perpendicular to the recording sheet transport direction
2215/00738	. . . .	of sheet thickness or rigidity	2215/00978	. .	Details relating to power supplies
2215/00742	. . . .	of sheet weight	2215/00983	. .	using batteries
2215/00746	. . . .	of sheet velocity	2215/00987	. .	Remanufacturing, i.e. reusing or recycling parts of the image forming apparatus
2215/00751	. . . .	of sheet type, e.g. OHP	2215/00991	. .	Inserting seal through a gap
2215/00755	. . . .	of sheet toner density	2215/00995	. . .	Insertion tool used
2215/00759	. . . .	of sheet image, e.g. presence, type	2215/01	. .	for producing multicoloured copies
2215/00763	. . . .	of sheet resistivity	2215/0103	. .	Plural electrographic recording members
2215/00767	. . . .	of sheet potential	2215/0106	. . .	At least one recording member having plural associated developing units
2215/00772	. . . .	of temperature influencing copy sheet handling	2215/0109	. . .	Single transfer point used by plural recording members
2215/00776	. . . .	of humidity or moisture influencing copy sheet handling	2215/0112	. . . .	Linearly moving set of recording members
2215/0078	. . . .	of opening of structural part	2215/0116	. . . .	Rotating set of recording members
2215/00784	. . . .	of connection or pressing of structural part	2215/0119	. . .	Linear arrangement adjacent plural transfer points
2215/00789	. .	Adding properties or qualities to the copy medium	2215/0122	. . . .	primary transfer to an intermediate transfer belt
2215/00793	. . .	Stamping device	2215/0125	. . . . .	the linear arrangement being horizontal or slanted
2215/00797	. . .	Printing device, i.e. annotation	2215/0129	. . . . .	horizontal medium transport path at the secondary transfer
2215/00801	. . .	Coating device			
2215/00805	. . .	Gloss adding or lowering device			
2215/0081	. . . .	Gloss level being selectable			
2215/00814	. . .	Cutter			
2215/00818	. . .	Punch device			
2215/00822	. . .	Binder, e.g. glueing device			
2215/00827	. . . .	Stapler			
2215/00831	. . . .	Stitcher			
2215/00835	. . . .	Toner binding			
2215/00839	. . . .	Binding tape			
2215/00843	. . . .	Clip			
2215/00848	. . . .	Details of binding device			

2215/0132	. . . . . vertical medium transport path at the secondary transfer	2215/0431	. . . . Producing a clean non-image area, i.e. avoiding show-around effects
2215/0135	. . . . . the linear arrangement being vertical	2215/0434	. . . . Parameters defining the non-image area to be cleaned
2215/0138	. . . . . primary transfer to a recording medium carried by a transport belt	2215/0436	. . . . . Document properties at the scanning position, e.g. position and density
2215/0141	. . . . . the linear arrangement being horizontal	2215/0439	. . . . . Automatic detection of properties
2215/0145	. . . . . the linear arrangement being vertical	2215/0441	. . . . . Manual input of properties
2215/0148	. . . . . the linear arrangement being slanted	2215/0443	. . . . . Copy medium outline relative to the charge image
2215/0151	. . . characterised by the technical problem	2215/0446	. . . . . Magnification degree
2215/0154	. . . Vibrations and positional disturbances when one member abuts or contacts another member	2215/0448	. . . . . Charge-erasing means for the non-image area
2215/0158	. . . Colour registration	2215/0451	. . . . . Light-emitting array or panel
2215/0161	. . . . Generation of registration marks	2215/0453	. . . . . Light-emitting diodes, i.e. LED-array
2215/0164	. . . Uniformity control of the toner density at separate colour transfers	2215/0456	. . . . . Electroluminescent elements, i.e. EL-array
2215/0167	. . single electrographic recording member	2215/0458	. . . . . Liquid-crystal display elements, i.e. LCD-shutter array
2215/017	. . . single rotation of recording member to produce multicoloured copy	2215/046	. . . . . Charger
2215/0174	. . . plural rotations of recording member to produce multicoloured copy	2215/0463	. . . . . Exposure lamp used for scanning
2215/0177	. . . . Rotating set of developing units	2215/0465	. . . . . Developing conditions changed to produce a clean non-image area
2215/018	. . . . Linearly moving set of developing units, one at a time adjacent the recording member	2215/0468	. . . . Image area information changed (default is the charge image)
2215/0183	. . . . Reciprocal movement of transfer member across transfer point	2215/047	. . . . Image corrections
2215/0187	. . . Multicoloured toner image formed on the recording member	2215/0473	. . . . . due to document imperfections, e.g. punchholes, books
2215/019	. . Structural features of the multicolour image forming apparatus	2215/0475	. . . . . due to cover imperfection, i.e. show-through problem
2215/0193	. . . transfer member separable from recording member	2215/0478	. . . . . due to image carrier variations, e.g. ageing
2215/0196	. . . Recording medium carrying member with speed switching	2215/048	. . . . . Technical-purpose-oriented image area changes
2215/02	. Arrangements for laying down a uniform charge	2215/0482	. . . . . Toner-free areas produced
2215/021	. . by contact, friction or induction	2215/0485	. . . . . Avoiding problems in standard processing steps, such as transfer and fixing
2215/022	. . . using a magnetic brush	2215/0487	. . . . . Adapted to post-processing step, e.g. binding
2215/023	. . . using a laterally vibrating brush	2215/049	. . . . . Hiding of information contained in the image
2215/025	. . . using contact charging means having lateral dimensions related to other apparatus means, e.g. photodrum, developing roller	2215/0492	. . . . . Without changing the charge image
2215/026	. . by coronas	2215/0495	. . Plural charge levels of latent image produced, e.g. trilevel
2215/027	. . . using wires	2215/0497	. . Exposure from behind the image carrying surface
2215/028	. . . using pointed electrodes	2215/06	. Developing structures, details
2215/04	. Arrangements for exposing and producing an image	2215/0602	. . Developer
2215/0402	. . Exposure devices	2215/0604	. . . solid type
2215/0404	. . . Laser	2215/0607	. . . . two-component
2215/0407	. . . Light-emitting array or panel	2215/0609	. . . . . magnetic brush
2215/0409	. . . . Light-emitting diodes, i.e. LED-array	2215/0612	. . . . . cascade
2215/0412	. . . . Electroluminescent elements, i.e. EL-array	2215/0614	. . . . . one-component
2215/0414	. . . . Liquid-crystal display elements, i.e. LCD-shutter array	2215/0617	. . . . . contact development (i.e. the developer layer on the donor member contacts the latent image carrier)
2215/0417	. . . Standard lamp used to produce a reflection or transmission image of an original	2215/0619	. . . . . non-contact (flying development)
2215/0419	. . . Device not using light, e.g. ion-writer	2215/0621	. . . . . powder cloud
2215/0421	. . . Plurality of devices for producing the image (excluding dedicated erasing means)	2215/0624	. . . . . plural systems represented (e.g. in a multicolour device or for optimising photo line development)
2215/0424	. . . Using contents of CCD array to produce the image	2215/0626	. . . liquid type (at developing position)
2215/0426	. . Editing of the image, e.g. adding or deleting <a href="#">(correction, i.e. changing or enhancing the image G03G 2215/0429)</a>	2215/0629	. . . . liquid at room temperature
2215/0429	. . Changing or enhancing the image	2215/0631	. . . . melted, or otherwise made liquid
		2215/0634	. . Developing device

2215/0636	. . .	Specific type of dry developer device	2215/0822	. . . . .	with wall or blade between agitators
2215/0639	. . . .	Without donor member (i.e. developing housing slides on latent image-carrying member)	2215/0825	. . . .	belt
2215/0641	. . . .	Without separate supplying member (i.e. with developing housing sliding on donor member)	2215/0827	. . . .	Augers
2215/0643	. . . .	Electrodes in developing area, e.g. wires, not belonging to the main donor part	2215/083	. . . . .	with two opposed pitches on one shaft
2215/0646	. . . . .	Electrodes only acting from one side of the developing area, e.g. plate electrode	2215/0833	. . . . .	with varying pitch on one shaft
2215/0648	. . . .	Two or more donor members	2215/0836	. . .	Way of functioning of agitator means
2215/0651	. . . .	Electrodes in donor member surface	2215/0838	. . . .	Circulation of developer in a closed loop within the sump of the developing device
2215/0653	. . . . .	Microelectrodes in donor member surface, e.g. floating	2215/0841	. . . .	Presentation of developer to donor member
2215/0656	. . . .	Fixed electrodes behind moving donor member surface	2215/0844	. . . . .	by upward movement of agitator member
2215/0658	. . .	Liquid developer devices	2215/0847	. . . . .	by downward movement of agitator member
2215/066	. .	Toner cartridge or other attachable and detachable container for supplying developer material to replace the used material	2215/085	. . .	Stirring member in developer container
2215/0663	. . .	having a longitudinal rotational axis, around which at least one part is rotated when mounting or using the cartridge	2215/0852	. . . .	reciprocating
2215/0665	. . . .	Generally horizontally mounting of said toner cartridge parallel to its longitudinal rotational axis	2215/0855	. .	Materials and manufacturing of the developing device
2215/0668	. . . . .	Toner discharging opening at one axial end	2215/0858	. . .	Donor member
2215/067	. . . . .	Toner discharging opening covered by arcuate shutter	2215/0861	. . . .	Particular composition or materials
2215/0673	. . . .	Generally vertically mounting of said toner cartridge parallel to its longitudinal rotational axis	2215/0863	. . . .	Manufacturing
2215/0675	. . . .	Generally cylindrical container shape having two ends	2215/0866	. . .	Metering member
2215/0678	. . . .	Bottle shaped container having a bottle neck for toner discharge	2215/0869	. . .	Supplying member
2215/068	. . .	having a box like shape	2215/0872	. . .	Housing of developing device
2215/0682	. . .	Bag-type non-rigid container	2215/0875	. .	Arrangements for shipping or transporting of the developing device to or from the user
2215/0685	. . .	fulfilling a continuous function within the electrographic apparatus during the use of the supplied developer material, e.g. toner discharge on demand, storing residual toner, not acting as a passive closure for the developer replenishing opening	2215/0877	. . .	Sealing of the developing device opening, facing the image-carrying member
2215/0687	. . .	using a peelable sealing film	2215/088	. . . .	Peelable sealing film
2215/069	. . .	using a sealing member to be ruptured or cut	2215/0883	. . . .	Rupturable sealing film, e.g. tearable film
2215/0692	. . .	using a slidable sealing member, e.g. shutter	2215/0886	. . .	Container for holding the whole developing device when outside the machine, e.g. box, sack
2215/0695	. . .	using identification means or means for storing process or use parameters	2215/0888	. .	Arrangements for detecting toner level or concentration in the developing device
2215/0697	. . . .	being an electronically readable memory	2215/0891	. . .	Optical detection
2215/08	. .	Details of powder developing device not concerning the development directly	2215/0894	. . . .	through a light transmissive window in the developer container wall
2215/0802	. .	Arrangements for agitating or circulating developer material	2215/0897	. . . . .	Cleaning of the light transmissive window
2215/0805	. . .	Cleaning blade adjacent to the donor member	2215/16	. .	Transferring device, details
2215/0808	. . .	Donor member rotation direction	2215/1604	. .	Main transfer electrode
2215/0811	. . . .	Upper part of donor member transports used developer back to the sump	2215/1609	. . .	Corotron
2215/0813	. . . .	Lower part of donor member transports used developer back to the sump	2215/1614	. . .	Transfer roll
2215/0816	. . .	Agitator type	2215/1619	. . .	Transfer drum
2215/0819	. . . .	two or more agitators	2215/1623	. . .	Transfer belt
			2215/1628	. . .	Blade
			2215/1633	. . .	Plate
			2215/1638	. . .	Wires
			2215/1642	. . .	Brush
			2215/1647	. .	Cleaning of transfer member
			2215/1652	. . .	of transfer roll
			2215/1657	. . .	of transfer drum
			2215/1661	. . .	of transfer belt
			2215/1666	. .	Preconditioning of copy medium before the transfer point
			2215/1671	. . .	Preheating the copy medium before the transfer point
			2215/1676	. .	Simultaneous toner image transfer and fixing
			2215/168	. . .	at the first transfer point
			2215/1685	. . . .	using heat
			2215/169	. . . .	without heat
			2215/1695	. . .	at the second or higher order transfer point
			2215/20	. .	Details of the fixing device or porcess
			2215/2003	. .	Structural features of the fixing device



2215/2006	. . .	Plurality of separate fixing areas
2215/2009	. . .	Pressure belt
2215/2012	. . . .	having an end
2215/2016	. . .	Heating belt
2215/2019	. . . .	the belt not heating the toner or medium directly, e.g. heating a heating roller
2215/2022	. . . .	the fixing nip having both a stationary and a rotating belt support member opposing a pressure member
2215/2025	. . . .	the fixing nip having a rotating belt support member opposing a pressure member
2215/2029	. . . . .	the belt further entrained around one or more stationary belt support members, the latter not being a cooling device
2215/2032	. . . . .	the belt further entrained around additional rotating belt support members
2215/2035	. . . .	the fixing nip having a stationary belt support member opposing a pressure member
2215/2038	. . . . .	the belt further entrained around one or more rotating belt support members
2215/2041	. . . .	the fixing nip being formed by tensioning the belt over a surface portion of a pressure member
2215/2045	. . .	Variable fixing speed
2215/2048	. . .	Surface layer material
2215/2051	. . . .	Silicone rubber
2215/2054	. . . .	Inorganic filler, e.g. silica powder
2215/2058	. . .	Shape of roller along rotational axis
2215/2061	. . . .	concave
2215/2064	. . . .	convex
2215/2067	. . . .	Shape of roller core
2215/207	. .	Type of toner image to be fixed
2215/2074	. . .	colour
2215/2077	. . . .	Fixing between separate colour toner transfers
2215/208	. . .	black and white
2215/2083	. . .	duplex
2215/2087	. . .	simplex
2215/209	. . .	plural types of toner image handled by the fixing device
2215/2093	. .	Release agent handling devices
2215/2096	. . .	using porous fluoropolymers for wicking the release agent
<b>2217/00</b>		<b>Details of electrographic processes using patterns other than charge patterns</b>
2217/0008	. .	Process where toner image is produced by controlling which part of the toner should move to the image- carrying member
2217/0016	. .	where the toner is conveyed over the electrode array to get a charging and then being moved
2217/0025	. .	where the toner starts moving from behind the electrode array, e.g. a mask of holes
2217/0033	. .	where the toner is held behind a gate electrode array until being released
2217/0041	. .	Process where the image-carrying member is always completely covered by a toner layer
2217/005	. .	where the toner is charged before producing the toner layer on the image-carrying member
2217/0058	. .	where the toner layer is being charged
2217/0066	. .	where no specific pick-up of toner occurs before transfer of the toner image
2217/0075	. .	Process using an image-carrying member having an electrode array on its surface
2217/0083	. .	Process using a fixed electrode array behind a moving recording medium
2217/0091	. .	Process comprising image exposure at the developing area
<b>2221/00</b>		<b>Processes not provided for by group G03G 2215/00, e.g. cleaning or residual charge elimination</b>
2221/0005	. .	Cleaning of residual toner
2221/001	. .	Plural sequential cleaning devices
2221/0015	. .	Width of cleaning device related to other parts of the apparatus, e.g. transfer belt width
2221/0021	. .	applying vibrations to the electrographic recording medium for assisting the cleaning, e.g. ultrasonic vibration
2221/0026	. .	Cleaning of foreign matter, e.g. paper powder, from imaging member
2221/0031	. .	Type of foreign matter
2221/0036	. . .	Oil and other liquid matter
2221/0042	. . .	Paper powder and other dry foreign matter
2221/0047	. .	Type of cleaning device
2221/0052	. . .	Common container for holding cleaned foreign matter and residual toner
2221/0057	. . . .	Separate cleaning members for foreign matter and residual toner
2221/0063	. . .	Cleaning device for foreign matter separate from residual toner cleaning device
2221/0068	. .	Cleaning mechanism
2221/0073	. . .	Electrostatic
2221/0078	. . .	Magnetic
2221/0084	. . .	Liquid
2221/0089	. . .	Mechanical
2221/0094	. . .	Suction
2221/16	. .	Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements and complete machine concepts
2221/1603	. .	for multicoloured copies
2221/1606	. .	for the photosensitive element
2221/1609	. . .	protective arrangements for preventing damage
2221/1612	. . . .	plural shutters for openings of process cartridge
2221/1615	. . .	being a belt
2221/1618	. .	for the cleaning unit
2221/1621	. . .	re-use of cleaned toner
2221/1624	. . .	transporting cleaned toner into separate vessels, e.g. photoreceptors, external containers
2221/1627	. . .	Details concerning the cleaning process
2221/163	. .	for the developer unit
2221/1633	. . .	Details concerning the developing process
2221/1636	. .	for the exposure unit
2221/1639	. .	for the fixing unit
2221/1642	. .	for the transfer unit
2221/1645	. .	for conducting air through the machine, e.g. cooling
2221/1648	. .	using seals, e.g. to prevent scattering of toner ( <a href="#">light shields for the photoreceptor G03G 2221/1609</a> )
2221/1651	. .	for connecting the different parts
2221/1654	. . .	Locks and means for positioning or alignment
2221/1657	. . .	transmitting mechanical drive power
2221/166	. . .	Electrical connectors
2221/1663	. .	having lifetime indicators
2221/1666	. . .	integer lifetimes of each other

- 2221/1669 . . Details about used materials
- 2221/1672 . . Paper handling
- 2221/1675 . . . jam treatment
- 2221/1678 . . Frame structures
- 2221/1681 . . . Portable machines
- 2221/1684 . . . using extractable subframes, e.g. on rails or hinges
- 2221/1687 . . . using opening shell type machines, e.g. pivoting assemblies
- 2221/169 . . . Structural door designs
- 2221/1693 . . for charging
- 2221/1696 . . for auxiliary devices, e.g. add-on modules
- 2221/18 . . Cartridge systems
- 2221/1807 . . . Transport of supply parts, e.g. process cartridges
- 2221/1815 . . . for cleaning or developing but not being a process cartridge
- 2221/1823 . . . Cartridges having electronically readable memory
- 2221/183 . . . Process cartridge
- 2221/1838 . . . . Aut setting of process parameters
- 2221/1846 . . . . using a handle for carrying or pulling out of the main machine
- 2221/1853 . . . . having a submodular arrangement
- 2221/1861 . . . . . Rotational subunit connection
- 2221/1869 . . . . . Cartridge holders, e.g. intermediate frames for placing cartridge parts therein
- 2221/1876 . . . . . for production purposes, e.g. manufacture or mass production
- 2221/1884 . . . . Projections on process cartridge for guiding mounting thereof in main machine
- 2221/1892 . . . . Presence detection