CPC COOPERATIVE PATENT CLASSIFICATION

D TEXTILES; PAPER

TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D01 NATURAL OR MAN-MADE THREADS OR FIBRES; SPINNING

(NOTE omitted)

D01F CHEMICAL FEATURES IN THE MANUFACTURE OF ARTIFICIAL FILAMENTS, THREADS, FIBRES, BRISTLES OR RIBBONS; APPARATUS SPECIALLY ADAPTED FOR THE MANUFACTURE OF CARBON FILAMENTS

1/00 General methods for the manufacture of artificial filaments or the like

1/02 . Addition of substances to the spinning solution or to the melt (addition of substances to viscose D01F 2/08)
1/04 . . Pigments
1/06 . . Dyes
1/07 . . for making fire- or flame-proof filaments
1/08 . . for forming hollow filaments
1/09 . . for making electroconductive or anti-static filaments
1/10 . . Other agents for modifying properties
1/103 . . . {Agents inhibiting growth of microorganisms}
1/106 . . . {Radiation shielding agents, e.g. absorbing, reflecting agents}

2/00 Monocomponent artificial filaments or the like of cellulose or cellulose derivatives; Manufacture thereof

2/02 . from solutions of cellulose in acids, bases or salts
2/04 . . from cuprammonium solutions
2/06 . from viscose
2/08 . . Composition of the spinning solution or the bath
2/10 . . . Addition to the spinning solution or spinning bath of substances which exert their effect equally well in either
2/12 . . . Addition of delustering agents to the spinning solution
2/14 . . . . Addition of pigments
2/16 . . . Addition of dyes to the spinning solution
2/18 . . . Addition to the spinning solution of substances to influence ripening
2/20 . . . for the manufacture of hollow threads
2/22 . . by the dry spinning process
2/24 . from cellulose derivatives
2/26 . . from nitrocellulose
2/28 . . from organic cellulose esters or ethers, e.g. cellulose acetate
2/30 . . . by the dry spinning process

4/00 Monocomponent artificial filaments or the like of proteins; Manufacture thereof

4/02 . from fibroin
4/04 . from casein
4/06 . from globulins, e.g. groundnut protein

6/00 Monocomponent artificial filaments or the like of synthetic polymers; Manufacture thereof

NOTE

In this group, the percentage for determining the major constituent is expressed in mole percent.

6/02 . from homopolymers obtained by reactions only involving carbon-to-carbon unsaturated bonds
6/04 . . from polyolefins
6/06 . . . from polypropylene
6/08 . . from polymers of halogenated hydrocarbons
6/10 . . . from polyvinyl chloride or polyvinylidene chloride
6/12 . . . from polymers of fluorinated hydrocarbons
6/14 . . from polymers of unsaturated alcohols, e.g. polyvinyl alcohol, or of their acetals or ketals
6/16 . . from polymers of unsaturated carboxylic acids or unsaturated organic esters, e.g. polyacrylic esters, polyvinyl acetate
6/18 . . from polymers of unsaturated nitriles, e.g. polyacrylonitrile, polyvinylidene cyanide
6/20 . . from polymers of cyclic compounds with one carbon-to-carbon double bond in the side chain
6/22 . . . from polystyrene
6/24 . . from polymers of aliphatic compounds with more than one carbon-to-carbon double bond
6/26 . . from other polymers
6/28 . from copolymers obtained by reactions only involving carbon-to-carbon unsaturated bonds
6/30 . . comprising olefins as the major constituent
6/32 . . comprising halogenated hydrocarbons as the major constituent
6/34 . . comprising unsaturated alcohols, acetals or ketals as the major constituent
6/36 . . comprising unsaturated carboxylic acids or unsaturated organic esters as the major constituent
6/38 . . comprising unsaturated nitriles as the major constituent
6/40 . . Modacrylic fibres, i.e. containing 35 to 85% acrylonitrile
6/42 . . comprising cyclic compounds containing one carbon-to-carbon double bond in the side chain as major constituent

6/44 . from mixtures of polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds as major constituent with other polymers or low-molecular-weight compounds
6/46 . . of polyolefins
6/48 . . of polymers of halogenated hydrocarbons
6/50 . . of polyalcohols, polyacetals or polyketals
6/52 . . of polymers of unsaturated carboxylic acids or unsaturated esters
6/54 . . of polymers of unsaturated nitriles
6/56 . . of polymers of cyclic compounds with one carbon-to-carbon double bond in the side chain
6/58 . from homopolycondensation products
6/60 . . from polyamides (from polyamino acids or polypeptides D01F 6/68)
6/605 . . . {from aromatic polyamides}
6/62 . . from polyesters
6/625 . . . {derived from hydroxy-carboxylic acids, e.g. lactones}
6/64 . . . from polycarbonates
6/66 . . from polyethers
6/665 . . . {from polyetherketones, e.g. PEEK}
6/68 . . from polyaminoacids or polypeptides
6/70 . . from polyurethanes
6/72 . . from polyureas
6/74 . . from polycondensates of cyclic compounds, e.g. polyimides, polybenzimidazoles
6/76 . . from other polycondensation products
6/765 . . . {from polyarylene sulfides}
6/78 . from copolycondensation products
6/80 . . from copolyamides
6/805 . . . {from aromatic copolyamides}
6/82 . . from polyester amides or polyether amides
6/84 . . from copolyesters
6/86 . . from polyetheresters
6/88 . from mixtures of polycondensation products as major constituent with other polymers or low-molecular-weight compounds
6/90 . . of polyamides
6/905 . . . {of aromatic polyamides}
6/92 . . of polyesters
6/94 . . of other polycondensation products
6/96 . from other synthetic polymers

8/00 Conjugated, i.e. bi- or multicomponent, artificial filaments or the like; Manufacture thereof

8/02 . from cellulose, cellulose derivatives, or proteins
8/04 . from synthetic polymers
8/06 . . with at least one polyolefin as constituent
8/08 . . with at least one polyacrylonitrile as constituent
8/10 . . with at least one other macromolecular compound obtained by reactions only involving carbon-to-carbon unsaturated bonds as constituent
8/12 . . with at least one polyamide as constituent
8/14 . . with at least one polyester as constituent
8/16 . . with at least one other macromolecular compound obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds as constituent
8/18 . from other substances

9/00 Artificial filaments or the like of other substances; Manufacture thereof; Apparatus specially adapted for the manufacture of carbon filaments

9/02 . of reaction products of rubber with acids or acid anhydrides, e.g. sulfur dioxide
9/04 . of alginates
9/08 . of inorganic material (working or processing of metal wire B21F; from softened glass, minerals or slags C03B 37/00)
9/10 . . by decomposition of organic substances (D01F 9/12 takes precedence)
9/12 . . Carbon filaments; Apparatus specially adapted for the manufacture thereof
9/127 . . . by thermal decomposition of hydrocarbon gases or vapours {or other carbon-containing compounds in the form of gas or vapour, e.g. carbon monoxide, alcohols}
9/1271 . . . . {Alkanes or cycloalkanes}
9/1272 . . . . . {Methane}
9/1273 . . . . {Alkenes, alkynes}
9/1274 . . . . . {Butadiene}
9/1275 . . . . . {Acetylene}
9/1276 . . . . {Aromatics, e.g. toluene}
9/1277 . . . . {Other organic compounds}
9/1278 . . . . {Carbon monoxide}
9/133 . . . . Apparatus therefor
9/14 . . . by decomposition of organic filaments
9/145 . . . . from pitch or distillation residues
9/15 . . . . . from coal pitch
9/155 . . . . . from petroleum pitch
9/16 . . . . from products of vegetable origin or derivatives thereof, e.g. from cellulose acetate (D01F 9/18 takes precedence)
9/17 . . . . . from lignin
9/18 . . . . from proteins, e.g. from wool
9/20 . . . . from polyaddition, polycondensation or polymerisation products (D01F 9/145, D01F 9/16, D01F 9/18 take precedence)
9/21 . . . . . from macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
9/22 . . . . . from polyacrylonitriles
9/225 . . . . . {from stabilised polyacrylonitriles}
9/24 . . . . . from macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
9/245 . . . . . {from polyurethanes}
9/26 . . . . . from polyesters
9/28 . . . . . from polyamides
9/30 . . . . . from aromatic polyamides
9/32 . . . . Apparatus therefor
9/322 . . . . . {for manufacturing filaments from pitch}
9/324 . . . . . {for manufacturing filaments from products of vegetable origin}
9/326 . . . . . {for manufacturing filaments from proteins}
9/328 . . . . . {for manufacturing filaments from polyaddition, polycondensation, or polymerisation products}

11/00 Chemical after-treatment of artificial filaments or the like during manufacture

11/02 . of cellulose, cellulose derivatives, or proteins
11/04 . of synthetic polymers
11/06 . . of macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds

11/08 . . of macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
11/10 . of carbon
11/12 . . with inorganic substances {; Intercalation}
11/121 . . . {Halogen, halogenic acids or their salts}
11/122 . . . {Oxygen, oxygen-generating compounds (anode oxidising D01F 11/16)}
11/123 . . . {Oxides}
11/124 . . . {Boron, borides, boron nitrides}
11/125 . . . {Carbon}
11/126 . . . {Carbides (boron-comprising compounds D01F 11/124; nitrogen carbide D01F 11/128)}
11/127 . . . {Metals (metal depositing by electrolysis D01F 11/16; metal alloys with reinforcing carbon fibres C22C 49/14)}
11/128 . . . {Nitrides, nitrogen carbides (nitrogen borides D01F 11/124)}
11/129 . . . {Intercalated carbon- or graphite fibres}
11/14 . . with organic compounds, e.g. macromolecular compounds
11/16 . . by physicochemical methods

13/00 Recovery of starting material, waste material or solvents during the manufacture of artificial filaments or the like

13/02 . of cellulose, cellulose derivatives or proteins {(recovery of sodium sulfate from coagulation baths C01D 5/006)}
13/04 . of synthetic polymers