

## Compilation of Changes to the CPC Scheme Between 2017.01 and 2017.02

### Presentation Details

Entries for new symbols and headings:	<i>Black text in italics</i>
Entries for existing symbols and headings:	
—text insertions:	<i>Green text in italics with yellow background</i>
—text deletions:	<del>Red strikethrough text with grey background</del>
Entries for deleted symbols and headings:	<del>Black strikethrough text</del>
<ul style="list-style-type: none"> <li>• In cases when the originating project cannot be found, "N/A" is given for the Project information (e.g. the change could be due to an Editorial Correction).</li> <li>• Projects ending in "-F" indicate finalisation after reclassification was completed.</li> </ul>	

### Project: MP0319 (A24B)

- U A24B 7/00** Cutting tobacco (hand cutting tools [B26B](#); slicing in general [B26D 1/00](#), [B26D 3/00](#))
- M A24B 7/14** • Feeding or ~~regulating~~*control* devices for tobacco-cutting apparatus

### Project: MP0319 (A45D)

- U A45D 1/00** Curling-tongs, i.e. tongs for use when hot; Curling-irons, i.e. irons for use when hot; Accessories therefor
- M A45D 1/28** • with ~~temperature-regulating~~*means for controlling* or indicating ~~means~~*the temperature*
- U A45D 6/00** Details of, or accessories for, hair-curling or hair-waving devices
- M A45D 6/20** • ~~Temperature-regulating devices~~*Devices* for *controlling the temperature of* hair curlers
- U A45D 20/00** Hair drying devices; Accessories therefor ([A45D 2/00](#) takes precedence)
- U A45D 20/22** • Helmets with hot air supply or ventilating means, e.g. electrically heated air current
- M A45D 20/26** • • Guiding the air; ~~Regulating~~*Controlling* the air quantity

### Project: MP0319 (A47L)

- U A47L 9/00** Details or accessories of suction cleaners, e.g. mechanical means for controlling the suction or for effecting pulsating action; Storing devices specially adapted to suction cleaners or parts thereof; Carrying-vehicles specially adapted for suction cleaners
- M A47L 9/28** • Installation of the electric equipment, e.g. adaptation or attachment to the suction cleaner; ~~Regulation of~~*Controlling* suction cleaners by electric means
- M A47L 9/2836** • • {characterised by the parts which are ~~regulated~~*controlled*}

### Project: RP0410 (A61B)

- U A61B 17/00** Surgical instruments, devices or methods, e.g. tourniquets ([A61B 18/00](#) takes precedence; contraceptive devices, pessaries, or applicators therefor [A61F 6/00](#); eye surgery [A61F 9/007](#); ear surgery [A61F 11/00](#))
- U A61B 17/04** • for suturing wounds; Holders or packages for needles or suture materials (suture materials [A61L 17/00](#))
- A61B 17/06** • • Needles *{*; *{*Sutures; Needle-suture combinations*}*; Holders or packages for needles or suture materials (puncturing needles [A61B 17/34](#); ~~nerve needles~~ [A61C 5/02](#); hypodermic needles [A61M 5/32](#) *{*; *{*sewing needles [D05B 85/00](#)*}*)

## Project: RP0410 (A61C)

## M A61C

**DENTISTRY; APPARATUS OR METHODS FOR ORAL OR DENTAL HYGIENE** (non-driven toothbrushes [A46B](#); {tongue scrapers [A61B 17/24](#);} preparations for dentistry [A61K 6/00](#); preparations for cleaning the teeth or mouth [A61K 8/00](#), [A61Q 11/00](#))

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<b>A61C5/09</b>	covered by	<b>A61C 5/08</b>
<b>A61C5/11</b>	covered by	<b>A61C 5/08</b>
<a href="#">A61C 7/24</a>	covered by	<a href="#">A61C 7/20</a>
<a href="#">A61C 7/26</a>	covered by	<a href="#">A61C 7/20</a>
<a href="#">A61C 7/32</a>	covered by	<a href="#">A61C 7/28</a>
<a href="#">A61C 8/02</a>	covered by	<a href="#">A61C 8/0004</a>
<a href="#">A61C 11/04</a>	covered by	<a href="#">A61C 11/00</a>
<a href="#">A61C 13/003</a>	covered by	<a href="#">A61C 13/26</a>
<a href="#">A61C 13/007</a>	covered by	<a href="#">A61C 13/01</a>
<a href="#">A61C 13/03</a>	covered by	<a href="#">A61C 13/01</a>
<a href="#">A61C 13/07</a>	covered by	<a href="#">A61C 13/0025</a>
<a href="#">A61C 13/093</a>	covered by	<a href="#">A61C 13/1006</a>
<a href="#">A61C 13/103</a>	covered by	<a href="#">A61C 13/1009</a>
<a href="#">A61C 13/105</a>	covered by	<a href="#">A61C 13/1009</a>
<a href="#">A61C 13/107</a>	covered by	<a href="#">A61C 13/0001</a>
<a href="#">A61C 13/113</a>	covered by	<a href="#">A61C 13/0001</a>
<a href="#">A61C 13/15</a>	covered by	<a href="#">A61C 19/003</a>
<a href="#">A61C 13/23</a>	covered by	<a href="#">A61C 13/0025</a>
<a href="#">A61C 13/263</a>	covered by	<a href="#">A61C 13/225</a>
<a href="#">A61C 13/271</a>	covered by	<a href="#">A61C 13/26</a>
<a href="#">A61C 13/32</a>	covered by	<a href="#">A61C 13/225</a>
<a href="#">A61C 13/36</a>	covered by	<a href="#">A61C 13/1016</a>
<a href="#">A61C 13/38</a>	covered by	<a href="#">A61C 13/12</a>
<a href="#">A61C 17/024</a>	covered by	<a href="#">A61C 17/02</a>
<a href="#">A61C 17/032</a>	covered by	<a href="#">A61C 17/02</a>
<a href="#">A61C 17/06</a>	covered by	<a href="#">A61C 17/00</a>
<a href="#">A61C 17/08</a>	covered by	<a href="#">A61C 17/00</a>
<a href="#">A61C 17/10</a>	covered by	<a href="#">A61C 17/00</a>
<a href="#">A61C 17/12</a>	covered by	<a href="#">A61C 17/00</a>
<a href="#">A61C 17/18</a>	covered by	<a href="#">A61C 17/16</a>

## C A61C 5/00

**Filling or capping teeth**WARNING

*Group [A61C 5/00](#) is impacted by reclassification into group [A61C 5/30](#). Groups [A61C 5/00](#) and [A61C 5/30](#) should be considered in order to perform a complete search.*

## D A61C 5/002

- {**Facets**}  
<administratively transferred to [A61C 5/20](#)>

## D A61C 5/005

- {**Dental anchoring pins; Mounting tools or dispensers therefor** ([A61C 13/30](#) takes precedence)}  
<administratively transferred to [A61C 5/35](#)>

- C A61C 5/007
- {Dental splints; teeth or jaw immobilisation devices; stabilizing retainers bonded to teeth after orthodontic treatments}
- WARNING**  
*Group A61C 5/007 is impacted by reclassification into group A61C 5/30. Groups A61C 5/007 and A61C 5/30 should be considered in order to perform a complete search.*
- D A61C 5/02
- Implements for surgical treatment of the roots or nerves of the teeth; Nerve needles; Methods or instruments for medication of the roots (substances for chemical treatment A61K 6/00)  
 <administratively transferred to [A61C 5/40](#)>
- D A61C 5/021
- {Not used, see subgroups}  
 <administratively transferred to [A61C 5/40](#)>
- D A61C 5/023
- • {Root canal files; Handgrips or guiding means therefor (A61C 1/082, A61C 5/025, A61C 19/02 take precedence)}  
 <administratively transferred to [A61C 5/42](#)>
- D A61C 5/025
- • {Depth control, e.g. for files; Supports or boxes with depth gauging means; Stop positioners; Instruments adjustably mounted in handle portion}  
 <administratively transferred to [A61C 5/44](#)>
- D A61C 5/026
- • {Nerve extractors, e.g. needles; Removing broken parts of endodontic instruments}  
 <administratively transferred to [A61C 5/46](#)>
- D A61C 5/028
- • {Means preventing loss of endodontic instruments}  
 <administratively transferred to [A61C 5/48](#)>
- D A61C 5/04
- Implements for filling natural teeth; Methods or instruments for medication of tooth nerve channels ({rinsing tooth nerve channels A61C 17/02}; composition of the fillings A61K 6/02)  
 <administratively transferred to [A61C 5/50](#)>
- D A61C 5/045
- {with heating means, e.g. for heating gutta percha or filling}  
 <administratively transferred to [A61C 5/55](#)>
- D A61C 5/06
- Amalgam presses or mixers ({A61C 19/005 takes precedence})  
 <administratively transferred to [A61C 5/60](#)>
- D A61C 5/062
- {Dental composition applicators, e.g. syringes, guns (A61C 9/0026 takes precedence)}  
 <administratively transferred to [A61C 5/62](#)>
- D A61C 5/064
- • {Multi-component applicators}  
 <administratively transferred to [A61C 5/64](#)>
- D A61C 5/066
- {Amalgam capsules}  
 <administratively transferred to [A61C 5/66](#)>
- D A61C 5/068
- {Dental composition mixers, e.g. amalgators, capsule holders}  
 <administratively transferred to [A61C 5/68](#)>
- D A61C 5/08
- Tooth crowns; Making same; Securing crowns in the mouth (dental implants A61C 8/00)  
 <administratively transferred to [A61C 5/70](#)>
- D A61C 5/10
- • Methods or devices for making crowns ({A61C 13/0004 takes precedence})  
 <administratively transferred to [A61C 5/77](#)>
- D A61C 5/12
- Tooth clamps; Dam holders; {Dental aids fixed to the teeth during treatment}  
 <administratively transferred to [A61C 5/80](#)>
- D A61C 5/122
- {Dental dams; Holders or clamps therefor}  
 <administratively transferred to [A61C 5/82](#)>
- D A61C 5/125
- {Dental filling bands, e.g. matrix bands; Manipulating tools therefor}  
 <administratively transferred to [A61C 5/85](#)>

- D A61C 5/127
- {Dental wedges}  
<administratively transferred to [A61C 5/88](#)>
- D A61C 5/14
- Lip or mouth protectors  
<administratively transferred to [A61C 5/90](#)>
- N A61C 5/20
- *Repairing attrition damage, e.g. facets*
- N A61C 5/30
- *Securing inlays, onlays or crowns*
- WARNING  
Group [A61C 5/30](#) is incomplete pending reclassification of documents from groups [A61C 5/00](#), [A61C 5/007](#), [A61C 5/70](#) and [A61C 13/225](#).  
All groups listed in this warning should be considered in order to perform a complete search.
- N A61C 5/35
- *Pins; Mounting tools or dispensers therefor*
- WARNING  
Group [A61C 5/35](#) is incomplete pending reclassification of documents from group [A61C 5/70](#).  
Groups [A61C 5/70](#) and [A61C 5/35](#) should be considered in order to perform a complete search.
- N A61C 5/40
- *Implements for surgical treatment of the roots or nerves of the teeth; Nerve needles; Methods or instruments for medication of the roots*
- N A61C 5/42
- *Files for root canals; Handgrips or guiding means therefor*
- N A61C 5/44
- *Means for controlling working depth, e.g. supports or boxes with depth-gauging means, stop positioners or files with adjustably-mounted handles*
- N A61C 5/46
- *Nerve extractors, e.g. needles; Means for removing broken parts of endodontic instruments*
- N A61C 5/48
- *Means for preventing loss of endodontic instruments during treatment*
- N A61C 5/50
- *Implements for filling root canals; Methods or instruments for medication of tooth nerve channels*
- N A61C 5/55
- *with heating means, e.g. for heating gutta percha*
- N A61C 5/60
- *Devices specially adapted for pressing or mixing capping or filling materials, e.g. amalgam presses*
- WARNING  
Group [A61C 5/60](#) is incomplete pending reclassification of documents from group [A61C 19/005](#).  
Groups [A61C 19/005](#) and [A61C 5/60](#) should be considered in order to perform a complete search.
- N A61C 5/62
- *Applicators, e.g. syringes or guns*
- N A61C 5/64
- *for multi-component compositions*
- N A61C 5/66
- *Capsules for filling material*
- N A61C 5/68
- *Mixing dental material components for immediate application to a site to be restored, e.g. a tooth cavity*
- Q A61C 5/70
- *Tooth crowns; Making thereof*
- WARNING  
Group [A61C 5/70](#) is impacted by reclassification into groups [A61C 5/30](#), [A61C 5/35](#) and [A61C 5/73](#).  
All groups listed in this warning should be considered in order to perform a complete search.

- N A61C 5/73
- Composite crowns
- WARNING  
Group [A61C 5/73](#) is incomplete pending reclassification of documents from group [A61C 5/70](#).  
Groups [A61C 5/70](#) and [A61C 5/73](#) should be considered in order to perform a complete search.
- N A61C 5/77
- Methods or devices for making crowns
- WARNING  
Group [A61C 5/77](#) is incomplete pending reclassification of documents from group [A61C 13/0004](#).  
Groups [A61C 13/0004](#) and [A61C 5/77](#) should be considered in order to perform a complete search.
- N A61C 5/80
- Dental aids fixed to teeth during treatment, e.g. tooth clamps
- N A61C 5/82
- Dams; Holders or clamps therefor
- N A61C 5/85
- Filling bands, e.g. matrix bands; Manipulating tools therefor
- N A61C 5/88
- Wedges
- N A61C 5/90
- Oral protectors for use during treatment, e.g. lip or mouth protectors ([A61C 5/82](#) takes precedence)
- M A61C 13/00
- Dental prostheses; Making same (tooth crowns for capping teeth ~~A61C 5/08~~[A61C 5/70](#); dental implants [A61C 8/00](#))**
- U A61C 13/0003
- {Making bridge-work, inlays, implants or the like}
- C A61C 13/0004
- {Computer-assisted sizing or machining of dental prostheses}
- WARNING  
Group [A61C 13/0004](#) is impacted by reclassification into group [A61C 5/77](#).  
Groups [A61C 13/0004](#) and [A61C 5/77](#) should be considered in order to perform a complete search.
- C A61C 13/225
- Fastening prostheses in the mouth ~~{([A61C 8/0048](#) takes precedence~~[securing tooth crowns in capping teeth \[A61C 5/30\]\(#\)\)}](#)
- WARNING  
Group [A61C 13/225](#) is impacted by reclassification into group [A61C 5/30](#).  
Groups [A61C 13/225](#) and [A61C 5/30](#) should be considered in order to perform a complete search.
- U A61C 19/00
- Dental auxiliary appliances (dental chairs or accessories therefor, working stands whether or not combined with chairs [A61G 15/00](#))**
- C A61C 19/005
- {Devices for the manual mixing of small quantities of materials, e.g. trays for mixing dental porcelain}
- WARNING  
Group [A61C 19/005](#) is impacted by reclassification into group [A61C 5/60](#).  
Groups [A61C 19/005](#) and [A61C 5/60](#) should be considered in order to perform a complete search.
- M A61C 19/02
- Protective casings, e.g. boxes for instruments; ~~Bags~~; [Bags](#)  
{(~~[A61C 5/025](#)~~[A61C 5/44](#) takes precedence)}
- M A61C 19/04
- Measuring instruments specially adapted for dentistry ({~~[A61C 5/025](#)~~[A61C 5/44](#) takes precedence; testing vitality of teeth [A61B 5/0534](#)}; ~~radiation diagnosis [A61B 6/00](#)~~; [radiation diagnosis \[A61B 6/00\]\(#\)](#))

**Project: N/A (A61F)****U A61F 11/00****Methods or devices for treatment of the ears, e.g. surgical; Protective devices for the ears, carried on the body or in the hand; {Non-electric hearing aids}****U A61F 11/06**

• Protective devices for the ears

**A61F 11/14**

- external, e.g. earcaps or earmuffs (headwear, e.g. caps or helmets, with means for protecting the ears [A42B 1/06](#), [A42B 3/16](#), {for hairdresser's rooms [A45D 44/12](#); for sports [A63B 71/10](#); headphones [H04R 1/10](#)})

**NOTE**

{Group [A61F 11/14](#) contains only acoustic protection (other external protectors, see [A61F 11/06](#))}

**Project: N/A (B01D)****B01D**

**SEPARATION (separating solids from solids by wet methods [B03B](#), [B03D](#); by pneumatic jigs or tables [B03B](#); by other dry methods [B07](#); magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high-voltage electric fields [B03C](#); centrifuges, vortex apparatus [B04](#); presses *per se* for squeezing-out liquid from liquid-containing material [B30B 9/02](#); treatment of water [C02F](#), e.g. softening by ion-exchange [C02F 1/42](#); {arrangements of air intake cleaners in gas turbine plants [F02C 7/05](#)}; arrangements or mounting of filters in air-conditioning, air-humidification or ventilation [F24F 13/28](#))**

**NOTES**1. This subclass covers:

- evaporation, distillation, crystallisation, filtration, dust precipitation, gas cleaning, absorption, adsorption;
- similar processes which are not concerned with, or limited to, separation (except in the case of absorption or adsorption).

2. In this subclass the terms or expressions are used with the meaning indicated:

- "filtration" and analogous terms include straining solids from fluids;
- "filter medium" is a porous material or porous arrangement of material used to filter solids from fluids;
- "filtering element" is a section of filter medium in addition to parts to which the medium is demountably or permanently fixed, including other sections of medium, end caps, peripheral frames or edge strips, but excluding housings;
- "filter housing" is the fluid-constraining impervious vessel, whether open or closed, which contains, or is adapted to contain, one or more filtering elements or filter media;
- "filter chamber" is the space within a housing, where filtering elements or filter media are located. Partitions may divide a single housing into a plurality of chambers;
- "filtering apparatus" consists of filtering elements combined with housings, cleaning arrangements, motor or the like parts, which are characteristic of the particular type of apparatus. Ancillary devices such as pumps or valves are considered part of a filtering apparatus when inside the apparatus. Ancillary devices performing similar or different unit operation such as comminutors, mixers or non-filtering separators, whether or not inside the apparatus, are not considered part of a filtering apparatus. The term does



not extend to apparatus, e.g. washing machines, of which the filter forms only a part.

3. For apparatus used in drying or evaporation, [F26](#) takes precedence over [B01D](#).
4. Group [B01D 59/00](#) takes precedence over the other groups of this subclass and over other subclasses in class [B01](#)

#### WARNINGS

1. The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following groups:

<del>B01D 19/0454</del> <b>B01D 19/0454</b>	covered by	<a href="#">B01D 9/00</a>
<a href="#">B01D 15/04</a>	covered by	<a href="#">B01J 39/00</a> - <a href="#">B01J 49/90</a>
<a href="#">B01D 17/022</a>	covered by	<a href="#">B01D 17/0202</a>
<a href="#">B01D 17/025</a>	covered by	<a href="#">B01D 17/0208</a>
<a href="#">B01D 17/028</a>	covered by	<a href="#">B01D 17/0211</a>
<a href="#">B01D 17/032</a>	covered by	<a href="#">B01D 17/0214</a>
<a href="#">B01D 17/035</a>	covered by	<a href="#">B01D 17/0205</a>
<a href="#">B01D 17/038</a>	covered by	<a href="#">B01D 17/0217</a>
<a href="#">B01D 17/05</a>	covered by	<a href="#">B01D 17/047</a>
<a href="#">B01D 17/09</a>	covered by	<a href="#">B01D 17/005</a>
<a href="#">B01D 17/12</a>	covered by	<a href="#">B01D 17/00</a>
<a href="#">B01D 25/133</a>	covered by	<a href="#">B01D 25/285</a>
<a href="#">B01D 25/168</a>	covered by	<a href="#">B01D 25/285</a>
<a href="#">B01D 25/21</a>	covered by	<a href="#">B01D 25/164</a>
<a href="#">B01D 29/075</a>	covered by	<a href="#">B01D 29/62</a> , <a href="#">B01D 29/76</a>
<a href="#">B01D 29/37</a>	covered by	<a href="#">B01D 29/336</a> , <a href="#">B01D 29/356</a>
<a href="#">B01D 33/052</a>	covered by	<a href="#">B01D 33/64</a>
<a href="#">B01D 35/01</a>	covered by	<a href="#">B01D 36/001</a>
<a href="#">B01D 61/26</a>	covered by	<a href="#">A61M 1/1656</a>
<a href="#">B01D 61/34</a>	covered by	<a href="#">A61M 1/16</a>

2. 5. The group [B01D 24/00](#) was introduced in March 1989. This group includes subject matter of [B01D 23/00](#), [B01D 25/06](#), [B01D 25/10](#), [B01D 29/0027](#), [B01D 33/0032](#) and [B01D 33/0054](#).

3. 6. Documents from the backlog of the group [B01D 23/00](#), and the subgroups [B01D 25/06](#), [B01D 25/10](#), [B01D 29/0027](#), [B01D 33/0032](#) and [B01D 33/0054](#) are in the process of being revised and also systematically transferred to [B01D 24/00](#).

4. 7. The groups [B01D 29/01](#) - [B01D 29/43](#) and [B01D 29/50](#) - [B01D 29/965](#) were introduced in March 1989; these subgroups include the subject matter of the subgroups of groups [B01D 29/0002](#), which are from this date no longer use for the classification of new documents.

5. 8. The documents from the backlog of the subgroups of group [B01D 29/0002](#) are in the process of being systematically transferred to the other subgroups of group [B01D 29/00](#).

6. 11. The documents from the backlog of the subgroups of group [B01D 33/0003](#) are in the process of being systematically transferred to the other subgroups of group [B01D 33/00](#).

7. 9. Groups [B01D 25/16](#), [B01D 25/18](#) and [B01D 25/20](#) are no longer used for the classification of new. Patent documents are continuously being reclassified to groups [B01D 29/44](#), [B01D 29/46](#) and [B01D 29/48](#).

8. 10. The groups [B01D 25/04](#), [B01D 25/08](#), [B01D 25/121](#), [B01D 25/122](#), [B01D 25/124](#), [B01D 25/125](#), [B01D 25/14](#), are no longer used for classification of new documents from December 1, 2011 onwards. The backlog of those groups

are being continuously reclassified to groups [B01D 25/00](#), [B01D 29/00](#) and subgroups.

## Project: MP0319 (B01D)

### U B01D 21/00

**Separation of suspended solid particles from liquids by sedimentation** ({separation of ores or the like by sedimentation [B03B 5/48](#) - [B03B 5/60](#)}; differential sedimentation [B03D 3/00](#); {purification of water, waste water, sewage or sludge [C02F](#), e.g.} devices for separating or removing fatty or oily substances or similar floating material from water, waste water or sewage [C02F 1/40](#))

#### WARNING

The following groups are not complete: [B01D 21/0006](#), see also [B01D 21/00](#)  
[B01D 21/0018](#), see also [B01D 21/00](#)  
[B01D 21/0054](#), see also [B01D 21/00](#)  
[B01D 21/0057](#), see also [B01D 21/00](#)  
[B01D 21/003](#), see also [B01D 21/00](#)  
[B01D 21/0036](#), see also [B01D 21/00](#)  
[B01D 21/0087](#), see also [B01D 21/00](#)  
[B01D 21/2416](#), see also [B01D 21/2405](#)  
[B01D 21/2422](#), see also [B01D 21/2405](#)  
[B01D 21/2427](#), see also [B01D 21/24](#)  
[B01D 21/2433](#), see also [B01D 21/24](#)  
[B01D 21/262](#), see also [B01D 21/26](#)  
[B01D 21/265](#), see also [B01D 21/26](#)  
[B01D 21/267](#), see also [B01D 21/26](#)  
[B01D 21/28](#), see also [B01D 21/28](#)  
[B01D 21/302](#), see also [B01D 21/30](#)  
**B01D21/30B**, see also [B01D 21/30](#)

### U B01D 21/30

- Control equipment

#### WARNING

Groups [B01D 21/302](#) - [B01D 21/34](#) are not complete, see also [B01D 21/30](#)

### M B01D 21/34

- ~~Regulation of~~*Controlling the* feed distribution; ~~Regulation of~~*Controlling the* liquid level ~~{~~; {Control of process parameters}

## Project: RP0410 (B01F)

### U B01F 15/00

**Accessories for mixers; {Auxiliary operations or auxiliary devices; Parts or details of general application}**

### U B01F 15/04

- Forming a predetermined ratio of the substances to be mixed (controlling ratio of two or more flows of fluid or fluent material [G05D 11/02](#) {; [G05D 11/00](#) takes precedence})

### U B01F 15/0441

- {by feeding the components in predetermined amounts}

### B01F 15/0454

- {using measuring chambers, e.g. volumetric pumps, for feeding the substances (for amalgam mixers ~~A61C 5/06~~[A61C 5/60](#); specially adapted for mixing plastic material [B29B 7/242](#), [B29B 7/603](#), [B29B 7/7626](#); ~~for amalgam mixers A61C 5/06~~; feeding plastic material in general [B29C 31/06](#), [B29C 31/10](#); for presses [B30B 15/302](#), [B30B 15/304](#); pumps for delivering fixed or variable measured quantities of two or more fluids at the same time [F04B 13/02](#); measuring and separating a predetermined volume of fluid or fluent solid material [G01F 11/00](#))}



**Project: MP0319 (B01J)**

- M B01J 4/00** Feed {or outlet} devices; Feed or outlet ~~regulating~~~~control~~ devices (feed or outlet devices for pressure vessels [B01J 3/02](#) ~~;~~ {feeding of particles into and evacuation of particles out of the reactor [B01J 8/0015](#)})
- M B01J 4/008** ~~· {Feed or outlet regulating or controlling control devices}~~

**Project: MP0319 (B07C)**

- U B07C 1/00** Measures preceding sorting according to destination
- U B07C 1/02** ~~· Forming articles into a stream; Arranging articles in a stream, e.g. spacing, orientating {(transport of sheets [B65H](#))}~~
- M B07C 1/04** ~~· · Forming a stream from a bulk; ~~Regulating~~~~Controlling~~ the stream, e.g. spacing the articles~~

**Project: RP0403 (B32B)**

- U B32B 17/00** Layered products essentially comprising sheet glass, or glass, slag, or like fibres
- U B32B 17/06** ~~· comprising glass as the main or only constituent of a layer, next to another layer of a specific {material (coating on glass [C03C 17/00](#); safety glazings [B32B 17/08](#) or [B32B 17/10](#); fire protective glazing with intumescent layers [B32B 17/069](#))}~~
- U B32B 17/10** ~~· · of synthetic resin {(producing optical elements from plastics [B29D 11/00](#); constructional form of optical elements [G02B](#))}~~

**NOTES**

1. In this group a layer of organic glass is not considered as a glass layer but as a synthetic resin layer];
2. [N: Inventions related to safety glazings (laminated glazings) are classified in all appropriate subgroups [B32B 17/10009](#) - [B32B 17/10807](#), whereby transparent polymeric layers other than the interlayer ( [B32B 17/1055](#) ) are classified using indexing codes

- U B32B 17/10165** ~~· · · {particular functional features of the laminated glazing}~~
- B32B 17/10541** ~~· · · · {~~The~~~~the~~ laminated glazing acting as an illumination device, i.e. comprising a light source or a light guide (~~light guides in general~~ [G02B 6/00](#); ~~lighting devices for vehicle interior~~ [B60Q 3/20](#); structural combinations of lighting devices with other articles [F21V 33/00](#); ~~lighting devices for vehicle interior~~ [B60Q 3/02](#); ~~light guides in general~~ [G02B 6/00](#))}~~

**Project: RP0403 (B60K)**

- U B60K 37/00** Dashboards (as road-vehicle superstructure sub-unit [B62D](#))
- M B60K 37/02** ~~· Arrangement of instruments (~~devices for lighting dashboard~~ [B60Q](#) ~~arrangement of lighting devices for dashboards~~ [B60Q 3/10](#))~~

**Project: RP0403 (B60N)**

- U B60N 3/00** Arrangements or adaptations of other passenger fittings, not otherwise provided for (of radio sets, television sets, telephones, {stowing or holding appliances} , safety belts or the like [B60R](#))
- B60N 3/14** ~~· of electrically-heated lighters {(arrangements of lighting devices for vehicle interiors for lighting passenger or driving compartment [B60Q 3/02](#) [B60Q 3/20](#); ~~igniters using electrically-produced heat~~ [F23Q 7/00](#); ~~igniters using electrically-produced heat~~ [F23Q 7/00](#))}~~

## Project: RP0403 (B60Q)

M B60Q

**VEHICLE ARRANGEMENT OF SIGNALLING OR LIGHTING DEVICES, THE MOUNTING OR SIGNALLING SUPPORTING THEREOF OR CIRCUITS THEREFOR, FOR VEHICLES IN GENERAL** (arrangement of signalling or lighting devices, the mounting or supporting thereof for rail vehicles B61D; for cycles B62J; for ships B63B; for aircrafts B64D; lighting in general; lighting devices *per se* F21, H05B; signalling in general G08; electric switches *per se* H01H)

## NOTES

1. This subclass covers also:
  - electric signalling of lighting circuits so far as specially arranged in vehicles;
  - arrangements or adaptations of lighting switches or signal-initiating means
2. Attention is drawn to the Note following the title of class [B60](#)
3. Attention is drawn to the following places :
 

<a href="#">B60K 28/00</a>	Safety devices, e.g. sleeping driver
<a href="#">B60R 25/00</a>	Anti theft
<a href="#">B62D</a>	Driving assistance
<a href="#">B62D 15/02</a>	Steering aids
<a href="#">B60K 31/0008</a>	Cruise control
<a href="#">F21S 48/00</a>	Lighting devices or systems specially adapted for vehicles
<a href="#">G01S</a>	Infra red night vision
<a href="#">G01S 13/931</a>	Anti Collision
<a href="#">G05D 1/00</a>	Automatic pilot
<a href="#">G06K 9/00</a>	Pattern recognition
<a href="#">G06T 3/00</a>	Image transformation
<a href="#">G06T 5/00</a>	Image enhancement
<a href="#">G06T 7/00</a>	Image analysis
<a href="#">G08B 21/00</a>	Alarms in general
<a href="#">G08G</a>	Traffic control
<a href="#">G08G 1/16</a>	Anti-collision systems
<a href="#">H04N</a>	Television systems

## WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">B60Q 1/128</a>	covered by	<a href="#">B60Q 1/124</a>
<a href="#">B60Q 1/132</a>	covered by	<a href="#">B60Q 1/124</a>
<a href="#">B60Q 1/136</a>	covered by	<a href="#">B60Q 1/124</a>

U B60Q 1/00

**Arrangements or adaptations of optical signalling or lighting devices (for lighting vehicle interior [B60Q 3/00](#); {circuit arrangements for electric light sources in general [H05B 37/00](#)})**

U B60Q 1/26

- the devices being primarily intended to indicate the vehicle, or parts thereof, or to give signals, to other traffic {(such devices mounted on the vehicle rear part [F21S 48/20](#); means for the lighting or illuminating of aerials, e.g. for purpose of warning [H01Q 1/06](#))}

U B60Q 1/2661  
B60Q 1/2665

- {mounted on parts having other functions (on wheels [B60Q 1/323](#))}
- • {on rear-view mirrors (lighting devices for vehicle interior on or for rear-view mirrors [B60Q 3/023](#) [B60Q 3/258](#); ~~adaptations or arrangements of mirrors for use on cycles B62J 29/00~~; rear-view mirror arrangements [B60R 1/02](#); mirror assemblies combined with lamps [B60R 1/1207](#); ~~adaptations or arrangements of mirrors for use on cycles B62J 29/00~~)}

B60Q 1/2669	<ul style="list-style-type: none"> <li>• • {on door or boot handles (lighting devices for vehicle interior on door handles <a href="#">B60Q 3/0233</a> <a href="#">B60Q 3/267</a>; vehicle doors <a href="#">B60J 5/00</a> <del>illuminating devices on or for locks or keys</del> <a href="#">E05B 17/10</a>; <del>illuminating devices on or for locks or keys</del> <a href="#">E05B 17/10</a>; <del>Keyhole</del> <a href="#">keyhole</a> finders <a href="#">E05B 15/08</a>)}</li> </ul>
B60Q 1/268	<ul style="list-style-type: none"> <li>• • {on windscreens or windows (<a href="#">B60Q 1/302</a> takes precedence; <del>windows or windscreens in general</del> <a href="#">B60J 1/00</a>; lighting devices for vehicle interior on or for windows <a href="#">B60Q 3/0213</a> <a href="#">B60Q 3/208</a>; <del>windows or windscreens in general</del> <a href="#">B60J 1/00</a>)}</li> </ul>
<b>C B60Q 3/00</b>	<p><b><del>Arrangements or adaptations</del> <i>Arrangement</i> of lighting devices for vehicle interior</b>  <b><del>interiors; Lighting devices specially adapted for vehicle interiors</del></b></p> <p><u>WARNING</u>  <i>Group B60Q 3/00 is impacted by reclassification into groups <a href="#">B60Q 3/40</a>, <a href="#">B60Q 3/50</a>, <a href="#">B60Q 3/54</a>, <a href="#">B60Q 3/60</a>, and <a href="#">B60Q 3/70</a>. All groups listed in this Warning should be considered in order to perform a complete search.</i></p>
D B60Q 3/001	<ul style="list-style-type: none"> <li>• {manually adjustable, e.g. colours, orientation, intensity (automatically adjusted <a href="#">B60Q 3/0293</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/85</a>&gt;</li> </ul>
D B60Q 3/002	<ul style="list-style-type: none"> <li>• {using light guides}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/62</a>&gt;</li> </ul>
D B60Q 3/004	<ul style="list-style-type: none"> <li>• {inside a single lighting device}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/64</a>&gt;</li> </ul>
D B60Q 3/005	<ul style="list-style-type: none"> <li>• {to distribute light between several lighting devices}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/66</a>&gt;</li> </ul>
D B60Q 3/007	<ul style="list-style-type: none"> <li>• {with means for electrical plugging into vehicle, e.g. in cigarette lighter, in special plug (arrangement of electrically heated lighters <a href="#">B60N 3/14</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/88</a>&gt;</li> </ul>
D B60Q 3/008	<ul style="list-style-type: none"> <li>• {using UV light}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/68</a>&gt;</li> </ul>
D B60Q 3/02	<ul style="list-style-type: none"> <li>• for lighting passenger or driving compartment</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/20</a>&gt;</li> </ul>
D B60Q 3/0203	<ul style="list-style-type: none"> <li>• {Details of mounting onto vehicle interior, e.g. onto ceiling, floor (mounting of lighting devices <a href="#">F21V 21/04</a>, vehicle liners <a href="#">B60R 13/02</a>, connectors <a href="#">H01R 33/00</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/51</a>&gt;</li> </ul>
D B60Q 3/0206	<ul style="list-style-type: none"> <li>• • {Modular mounting systems, e.g. using tracks, rails, multiple plugs (for lighting devices in general <a href="#">F21V 21/005</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/53</a>&gt;</li> </ul>
D B60Q 3/0209	<ul style="list-style-type: none"> <li>• {mounted onto or for lighting specific vehicle fittings}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/20</a>&gt;</li> </ul>
D B60Q 3/0213	<ul style="list-style-type: none"> <li>• • {on or for sun roofs, or windows (windows <u>per se</u> <a href="#">B60J 1/00</a>, sun roofs <u>per se</u> <a href="#">B60J 7/00</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/208</a>&gt;</li> </ul>
D B60Q 3/0216	<ul style="list-style-type: none"> <li>• • {on or for doors or steps (vehicle doors <a href="#">B60J 5/00</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/217</a>&gt;</li> </ul>
D B60Q 3/022	<ul style="list-style-type: none"> <li>• • {on or for small compartments, e.g. glove compartment (stowing small appliances in vehicles <a href="#">B60R 7/00</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/225</a>&gt;</li> </ul>
D B60Q 3/0223	<ul style="list-style-type: none"> <li>• • {on or for seats, arm rests or head rests (vehicle seats <u>per se</u> <a href="#">B60N 2/00</a>)}</li> <li>&lt;administratively transferred to <a href="#">B60Q 3/233</a>&gt;</li> </ul>

- D B60Q 3/0226
  - • • {on or for sun visors (sun visors ~~per se~~ B60J 3/0204)}  
<administratively transferred to [B60Q 3/252](#)>
- D B60Q 3/023
  - • • {on or for rear view mirrors (rear view mirror ~~per se~~ B60R 1/00)}  
<administratively transferred to [B60Q 3/258](#)>
- D B60Q 3/0233
  - • • {on or for door handles or hand grabs (door handles ~~per se~~ B60N 3/02)}  
<administratively transferred to [B60Q 3/267](#)>
- D B60Q 3/0236
  - • • {on or for smoking related tools, e.g. cigarette lighters, ashtrays (cigarette lighters B60N 3/14, ashtrays B60N 3/083)}  
<administratively transferred to [B60Q 3/275](#)>
- D B60Q 3/024
  - • • {on or for steering wheel or gear shift (steering wheels B62D 1/04, gear shifts B60K 20/00)}  
<administratively transferred to [B60Q 3/283](#)>
- D B60Q 3/0243
  - • • {others, e.g. cup holders, ignition locks (lighting for door locks E05B 15/08, E05B 17/10)}  
<administratively transferred to [B60Q 3/20](#)>
- D B60Q 3/0246
  - • {for mass transit vehicles (B60Q 3/0209, B60Q 3/04 take precedence, illumination of sides, boards or panels in general G09F 13/00)}  
<administratively transferred to [B60Q 3/41](#)>
- D B60Q 3/025
  - • • {Overall lighting}  
<administratively transferred to [B60Q 3/43](#)>
- D B60Q 3/0253
  - • • {Specific lighting, e.g. reading lamps}  
<administratively transferred to [B60Q 3/44](#)>
- D B60Q 3/0256
  - • • {Emergency lighting, e.g. escape routes (illumination of emergency signs G09F 13/00)}  
<administratively transferred to [B60Q 3/46](#)>
- D B60Q 3/0259
  - • • {Circuits or control therefore}  
<administratively transferred to [B60Q 3/47](#)>
- D B60Q 3/0263
  - • {Mounted on a shaft (for lighting devices in general F21V 21/26 and F21V 21/32)}  
<administratively transferred to [B60Q 3/56](#)>
- D B60Q 3/0266
  - • {Retractable, concealable lamps}  
<administratively transferred to [B60Q 3/57](#)>
- D B60Q 3/0269
  - • {with provision for being portable (portable lighting devices in general F21L)}  
<administratively transferred to [B60Q 3/59](#)>
- D B60Q 3/0273
  - • {Specifically arranged for convertibles}  
<administratively transferred to [B60Q 3/49](#)>
- D B60Q 3/0276
  - • {additional interior lighting specifically arranged to prevent conductor dazzling, e.g. by constricting the conductor's pupil}  
<administratively transferred to [B60Q 3/72](#)>
- D B60Q 3/0279
  - • {overall lighting alone or in combination with specific lighting, e.g. arrangement of room lamps, combination of room lamps with reading lamps (fastening of components within lighting devices F21V 17/00, F21V 19/00 and F21V 23/00)}  
<administratively transferred to [B60Q 3/74](#)>
- D B60Q 3/0283
  - • • {using lighting panels or mats, e.g. electro-luminescent panels, LED mats (electroluminescent light sources H05B 33/00)}  
<administratively transferred to [B60Q 3/745](#)>
- D B60Q 3/0286
  - • {Specific lighting, e.g. reading lamps, directional or focussed lighting towards small surfaces, e.g. using blends (fastening of components within lighting devices F21V 17/00, F21V 19/00 and F21V 23/00)}  
<administratively transferred to [B60Q 3/76](#)>

- D B60Q 3/0289
    - {Strip lighting, edge marking, e.g. using elongated light sources along or around parts to be illuminated}
    - <administratively transferred to [B60Q 3/78](#)>
  - D B60Q 3/0293
    - {circuits or control for interior lights (circuits for light sources in general H05B 37/00 and H05B 39/00, for electric vehicles B60L 1/14, electronic switching H03K 17/00, remote control H04Q 9/00)}
    - <administratively transferred to [B60Q 3/80](#)>
  - D B60Q 3/0296
    - {Switches specifically designed for interior lights, e.g. switching by tilting the lens (mechanical switches in general H01H, electronic switches in general H03K 17/00, arrangement of instruments in vehicles in general B60K 35/00 and B60K 37/00)}
    - <administratively transferred to [B60Q 3/82](#)>
  - D B60Q 3/04
    - {for dashboard {(lighting of individual instruments G01D, association of lighting devices with LCDs G02F 1/1335)}
    - <administratively transferred to [B60Q 3/10](#)>
  - D B60Q 3/042
    - {lighting onto the surface to be illuminated}
    - <administratively transferred to [B60Q 3/12](#)>
  - D B60Q 3/044
    - {lighting through the surface to be illuminated}
    - <administratively transferred to [B60Q 3/14](#)>
  - D B60Q 3/046
    - {Circuits or control therefore (for electric vehicles B60L 1/14; electronic switching H03K 17/00; remote control H04Q 9/00; circuits for light sources in general H05B 37/00, H05B 39/00)}
    - <administratively transferred to [B60Q 3/16](#)>
  - D B60Q 3/048
    - {for varying the light intensity (controlling the light intensity of displays G09G; circuits for controlling the light intensity emitted by particular light sources H05B)}
    - <administratively transferred to [B60Q 3/18](#)>
  - D B60Q 3/06
    - for lighting compartments other than passenger or driving space, e.g. luggage or engine compartment
    - <administratively transferred to [B60Q 3/30](#)>
  - D B60Q 3/065
    - {with provision for being portable (portable lighting devices in general F21L)}
    - <administratively transferred to [B60Q 3/35](#)>
  - N B60Q 3/10
    - for dashboards
  - N B60Q 3/12
    - lighting onto the surface to be illuminated
  - N B60Q 3/14
    - lighting through the surface to be illuminated
  - N B60Q 3/16
    - Circuits; Control arrangements
  - N B60Q 3/18
    - for varying the light intensity
  - Q B60Q 3/20
    - for lighting specific fittings of passenger or driving compartments; mounted on specific fittings of passenger or driving compartments (lighting for dashboards [B60Q 3/10](#))
- WARNING
- Group [B60Q 3/20](#) is impacted by reclassification into groups [B60Q 3/242](#) and [B60Q 3/292](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- N B60Q 3/208
    - Sun roofs; Windows
  - N B60Q 3/217
    - Doors, e.g. door sills; Steps
  - N B60Q 3/225
    - Small compartments, e.g. glove compartments
  - N B60Q 3/233
    - Seats; Arm rests; Head rests

- N B60Q 3/242
- • Safety belts; Body harnesses
- WARNING  
Group [B60Q 3/242](#) is incomplete pending reclassification of documents from group [B60Q 3/20](#).  
Groups [B60Q 3/20](#) and [B60Q 3/242](#) should be considered in order to perform a complete search.
- N B60Q 3/252
- • Sun visors
- N B60Q 3/258
- • Rear-view mirrors
- N B60Q 3/267
- • Door handles; Hand grips
- N B60Q 3/275
- • Smoking-related fittings, e.g. cigarette lighters or ashtrays
- N B60Q 3/283
- • Steering wheels; Gear levers
- N B60Q 3/292
- • Ignition locks
- WARNING  
Group [B60Q 3/292](#) is incomplete pending reclassification of documents from group [B60Q 3/20](#).  
Groups [B60Q 3/20](#) and [B60Q 3/292](#) should be considered in order to perform a complete search.
- N B60Q 3/30
- for compartments other than passenger or driving compartments, e.g. luggage or engine compartments
- N B60Q 3/35
- • Portable lighting devices
- N B60Q 3/40
- specially adapted for specific vehicle types
- WARNING  
Group [B60Q 3/40](#) is incomplete pending reclassification of documents from group [B60Q 3/00](#).  
Groups [B60Q 3/00](#) and [B60Q 3/40](#) should be considered in order to perform a complete search.
- N B60Q 3/41
- • for mass transit vehicles, e.g. buses
- N B60Q 3/43
- • • General lighting
- N B60Q 3/44
- • • Spotlighting, e.g. reading lamps
- N B60Q 3/46
- • • Emergency lighting, e.g. for escape routes
- N B60Q 3/47
- • • Circuits; Control arrangements
- N B60Q 3/49
- • for vehicles with non-fixed roofs, e.g. convertibles
- N B60Q 3/50
- Mounting arrangements (for compartments other than passenger or driving compartments [B60Q 3/30](#); specially adapted for specific vehicle types [B60Q 3/40](#))
- WARNING  
Group [B60Q 3/50](#) is incomplete pending reclassification of documents from group [B60Q 3/00](#).  
Groups [B60Q 3/00](#) and [B60Q 3/50](#) should be considered in order to perform a complete search.
- N B60Q 3/51
- • for mounting lighting devices onto vehicle interior, e.g. onto ceiling or floor
- N B60Q 3/53
- • • Modular mounting systems, e.g. using tracks, rails or multiple plugs
- N B60Q 3/54
- • Lighting devices embedded in interior trim, e.g. in roof liners
- WARNING  
Group [B60Q 3/54](#) is incomplete pending reclassification of documents from group [B60Q 3/00](#).



Groups [B60Q 3/00](#) and [B60Q 3/54](#) should be considered in order to perform a complete search.

- N B60Q 3/56
  - • Lighting devices mounted on elongate supports, e.g. on flexible arms
- N B60Q 3/57
  - • Retractable or concealable lighting devices
- N B60Q 3/59
  - • Lighting devices mounted in the vehicle interior and adapted for portability
- N B60Q 3/60
  - characterised by optical aspects

WARNING

Group [B60Q 3/60](#) is incomplete pending reclassification of documents from group [B60Q 3/00](#).

Groups [B60Q 3/00](#) and [B60Q 3/60](#) should be considered in order to perform a complete search.

- N B60Q 3/62
  - • using light guides
- N B60Q 3/64
  - • • for a single lighting device
- N B60Q 3/66
  - • • for distributing light among several lighting devices
- N B60Q 3/68
  - • using ultra-violet light
- N B60Q 3/70
  - characterised by the purpose

WARNING

Group [B60Q 3/70](#) is incomplete pending reclassification of documents from group [B60Q 3/00](#).

Groups [B60Q 3/00](#) and [B60Q 3/70](#) should be considered in order to perform a complete search.

- N B60Q 3/72
  - • for preventing the driver from being dazzled
- N B60Q 3/74
  - • for overall compartment lighting; for overall compartment lighting in combination with specific lighting, e.g. room lamps with reading lamps (general lighting mounted on specific fittings [B60Q 3/20](#); general lighting for mass transit vehicles [B60Q 3/43](#))
- N B60Q 3/745
  - • • {using lighting panels or mats, e.g. electro-luminescent panels, LED mats}
- N B60Q 3/76
  - • for spotlighting, e.g. reading lamps (spotlighting on or for specific fittings [B60Q 3/20](#); spotlighting in mass transit vehicles [B60Q 3/44](#))
- N B60Q 3/78
  - • for generating luminous strips, e.g. for marking trim component edges
- N B60Q 3/80
  - Circuits; Control arrangements (for dashboards [B60Q 3/16](#); for mass transit vehicles [B60Q 3/47](#))
- N B60Q 3/82
  - • Switches specially adapted for vehicle interior lighting, e.g. switching by tilting the lens
- N B60Q 3/85
  - • for manual control of the light, e.g. of colour, orientation or intensity
- N B60Q 3/88
  - • Means for plugging to the electrical power supply of the vehicle, e.g. by using cigarette lighter sockets

- M B60Q 7/00 Arrangement or ~~adapataion~~**adaptation** of portable emergency signal devices on ~~{board} vehicles {to be placed on roadways or vehicles, e.g. warning triangles}, {arrangements for enforcing caution on roads, e.g. marker posts, E01F 9/00; signs G09F, e.g. reflecting warning triangles G09F 13/16}~~

Project: RP0403 (B60R)

- U B60R 16/00 Electric or fluid circuits specially adapted for vehicles and not otherwise provided for; Arrangement of elements of electric or fluid circuits specially adapted for vehicles and not otherwise provided for {(devices for protecting vehicle occupants in case of accidents [B60R 21/00](#); safety belts [B60R 22/00](#); central door locking [E05B 49/00](#), [E05B 77/50](#))}

- U B60R 16/02      • electric {constitutive elements}
- U B60R 16/023      • • for transmission of signals between vehicle parts or subsystems
- B60R 16/0231      • • • {Circuits relating to the driving or the functioning of the vehicle (*monitoring tyres B60C 23/00; indicating overspeed B60K 31/00; for dash boards B60K 37/00, B60Q 3/04 B60Q 3/10; for indicating emergencies B60Q 1/52; brake control systems B60T; registering or indicating the working of vehicles G07C 5/00; measuring distance G01C, e.g. combinations of speed and distance G01C 23/00; engine indicators G01L; measuring speed or acceleration G01P; ~~brake control systems B60T; monitoring tyres B60C 23/00; indicating overspeed B60K 31/00~~*)}

**Project: MP0319 (B60R)**

- U B60R 21/00      **Arrangements or fittings on vehicles for protecting or preventing injuries to occupants or pedestrians in case of accidents or other traffic risks (safety belts or body harnesses in vehicles B60R 22/00; devices, apparatus or methods for life-saving in general A62B; safety devices for propulsion unit control specially adapted for, or arranged in, vehicles B60K 28/00; seats constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats, B60N 2/42; energy-absorbing arrangements for hand wheels for steering vehicles B62D 1/11; energy-absorbing arrangements for vehicle steering columns B62D 1/19; harnessing in aircraft B64D 25/00)**
- U B60R 21/02      • Occupant safety arrangements or fittings, {e.g. crash pads (seat belts with crash pads B60R 22/14; removable children's seats having a front guard or barrier B60N 2/2839)}
- U B60R 21/16      • • Inflatable occupant restraints or confinements designed to inflate upon impact or impending impact, e.g. air bags ({protective garments with automatically inflatable shock-absorbing means A41D 13/018; } connection of valves to inflatable elastic bodies B60C 29/00)
- U B60R 21/23      • • • Inflatable members (B60R 21/18 takes precedence; connection to inflation fluid source retainers B60R 21/217)
- U B60R 21/231      • • • • characterised by their shape, construction or spatial configuration  
     WARNING  
     Groups B60R 21/2334 - B60R 21/2346 are not complete, pending a reorganisation; see provisionally also group B60R 21/233
- M B60R 21/2334      • • • • • Expansion *regulating control* features

**Project: RP0410 (B65D)**

- U B65D 81/00      **Containers, packaging elements, or packages, for contents presenting particular transport or storage problems, or adapted to be used for non-packaging purposes after removal of contents**
- B65D 81/32      • for packaging two or more different materials which must be maintained separate prior to use in admixture (containers with removable or destructible partitions B65D 25/08 {; {closures combined with auxiliary containers B65D 51/28; in aerosol containers B65D 83/682; amalgam capsules A61C 5/066 A61C 5/66; containers for pharmaceutical purposes A61J 1/20, A61M 5/19; medical syringes A61M 3/005, resin cartridges for grouting anchoring-bolts in mines E21D 20/026})

**Project: MP0319 (B65D)**

- U B65D 83/00** Containers or packages with special means for dispensing contents (dispensing means incorporated in removable or non-permanently secured container closures [B65D 47/00](#); for shops, stores, offices, bars, or the like [A47F 1/04](#); showcases or cabinets with dispensing arrangements [A47F 3/02](#); {for surgical articles [A61B 50/30](#)} ; magazines for screws or nuts in combination with spanners, wrenches or screw-drivers [B25B 23/06](#); nail dispensers [B25C 3/00](#); for use in connection with the handling of sheets, webs, or filamentary material [B65H](#); coin deliverers [G07D 1/00](#); {coin-free apparatus for dispensing discrete articles [G07F 11/00](#)})
- U B65D 83/14** • for delivery of liquid or semi-liquid contents by internal gaseous pressure, i.e. aerosol containers comprising propellant {for a product delivered by a propellant (spraying devices for the destruction of noxious animals or plants [A01M 7/00](#), for therapeutic purposes [A61M 11/00](#); vessels for containing or storing compressed, liquefied, or solidified gases [F17C](#))}
- M B65D 83/44** • • Valves specially adapted therefor; Regulating devices (filling or ~~charging~~~~discharging~~ means [B65D 83/42](#); {pressure regulators releasing propellant inside the container [B65D 83/663](#)}; ~~pressure-relief devices~~ [B65D 83/70](#)}; ~~pressure relief devices~~ [B65D 83/70](#))

**Project: N/A (C01B)**

- U C01B 33/00** **Silicon; Compounds thereof** ({[C01B 6/00](#)}, [C01B 21/00](#), [C01B 23/00](#) take precedence; persilicates [C01B 15/14](#); carbides [C01B 31/36](#))
- U C01B 33/20** • Silicates (persilicates [C01B 15/14](#); {containing aluminium [C01B 33/26](#)})
- U C01B 33/32** • • Alkali metal silicates ({[C01B 33/24](#)}, [C01B 33/26](#) take precedence)
- C01B 33/325** • • • {After-treatment, e.g. purification or ~~stabilisation~~~~stabilisation~~ of solutions, granulation; Dissolution; Obtaining solid silicate, e.g. from a solution by spray-drying, flashing off water or adding a coagulant}
- NOTE**  
In this group, obtaining solid silicate, e.g. as a hydrate of a crystalline silicate, from a solution or a hydrate melt by heating or cooling with or without seeding, is not considered as after-treatment, but classified in group [C01B 33/32](#)
- U C01B 2203/00** **Integrated processes for the production of hydrogen or synthesis gas (reactors or details thereof [B01J 2208/00](#) - [B01J 2219/00](#))**
- U C01B 2203/04** • containing a purification step for the hydrogen or the synthesis gas
- U C01B 2203/0465** • • Composition of the impurity
- C01B 2203/047** • • • the ~~impurety~~~~impurity~~ being carbon monoxide
- C01B 2203/0475** • • • the ~~impurety~~~~impurity~~ being carbon dioxide
- C01B 2203/048** • • • the ~~impurety~~~~impurity~~ being an organic compound
- C01B 2203/0485** • • • the ~~impurety~~~~impurity~~ being a sulfur compound
- C01B 2203/049** • • • the ~~impurety~~~~impurity~~ being carbon
- C01B 2203/0495** • • • the ~~impurety~~~~impurity~~ being water

**Project: N/A (C01C)**

- U C01C 1/00** **Ammonia; Compounds thereof** {([C01C 3/08](#), [C01C 3/14](#), [C01C 3/16](#), [C01C 3/20](#) take precedence)}
- NOTE  
Complex ammine salts, e.g. [Pd(NH<sub>3</sub>)<sub>4</sub>]Cl<sub>2</sub>, are { also} classified in the relevant groups of subclasses [C01D](#) - [C01G](#), according to the metal
- U C01C 1/02      • Preparation, {purification} or separation of ammonia
- U C01C 1/04      • • Preparation of ammonia by synthesis {in the gas phase}{preparation or purification of gas mixtures for ammonia synthesis {[C01B 3/025](#)}}
- U C01C 1/0405      • • • {from N<sub>2</sub> and H<sub>2</sub> in presence of a catalyst}
- C01C 1/0417      • • • • {characterised by the synthesis reactor, e.g. arrangement of catalyst beds and heat exchangers in the reactor (arrangement of ~~several~~[several](#) reactors [C01C 1/0405](#); fixed-bed reactors in general [B01J 8/02](#))}

**Project: N/A (C01P)**

- U C01P 2006/00** **Physical properties of inorganic compounds**
- NOTES
1. Compounds having molecular sieve properties are classified in [C01B 37/00](#), [C01B 39/00](#).
2. The following codes are only to be used for physical values deviating significantly from the average usual values.
- C01P 2006/88      • Isotope composition differing from the natural ~~occurence~~[occurrence](#)

**Project: N/A (C02F)**

- U C02F 1/00** **Treatment of water, waste water, or sewage** ([C02F 3/00](#) - [C02F 9/00](#) take precedence)
- U C02F 1/46      • by electrochemical methods
- C02F 1/4606      • • {for producing oligodynamic substances to ~~desinfect~~[disinfect](#) the water}
- U C02F 1/461      • • by electrolysis
- U C02F 1/46104      • • • {Devices therefor; Their operating or servicing}
- U C02F 1/46109      • • • • {Electrodes}
- NOTE  
When classifying in group [C02F 1/46109](#), details of devices for electrolysis can be further indexed by using indexing codes chosen from [C02F 2001/46119](#) - [C02F 2001/46166](#)
- C02F 1/46114      • • • • • {Electrodes in particulate form or with conductive and/or non conductive ~~particules~~[particles](#) between them}
- C02F 1/467      • • • by electrochemical ~~desinfection~~[disinfection](#); {by electrooxydation or by electroreduction}

**Project: N/A (C03B)**

- U C03B 9/00** **Blowing glass; Production of hollow glass articles**
- U C03B 9/30      • Details of blowing glass (for blowing with the mouth [C03B 9/02](#)); Use of materials for the moulds
- U C03B 9/38      • • Means for cooling, heating, or insulating glass-blowing machines {or for cooling the glass moulded by the machine}

	C03B 9/3816	<ul style="list-style-type: none"> <li>• • • {Means for general supply, distribution or control of the medium to the mould, e.g. sensors, circuits, <del>distributrion</del><del>distribution</del> networks}</li> </ul>
<b>U</b>	<b>C03B 11/00</b>	<b>Pressing {molten} glass {or performed glass reheated to equivalent low viscosity without blowing (shaping molten glass by a press-blow process <a href="#">C03B 9/00</a>, e.g. <a href="#">C03B 9/193</a>; re-forming shaped glass <a href="#">C03B 23/00</a>; re-heating the performed glass <a href="#">C03B 29/00</a>; transporting the performed or pressed glass during its manufacture <a href="#">C03B 35/00</a>)}</b>
U	C03B 11/06	<ul style="list-style-type: none"> <li>• Construction of plunger or mould</li> </ul>
U	C03B 11/08	<ul style="list-style-type: none"> <li>• • for making solid articles, e.g. lenses</li> </ul>
	C03B 11/082	<ul style="list-style-type: none"> <li>• • • {having profiled, patterned or micro-structured <del>ssurfaces</del><del>surfaces</del>}</li> </ul>
<b>U</b>	<b>C03B 27/00</b>	<b>Tempering {or quenching} glass products</b>
U	C03B 27/04	<ul style="list-style-type: none"> <li>• using gas</li> </ul>
	C03B 27/0417	<ul style="list-style-type: none"> <li>• • {Controlling or <del>regualting</del><del>regulating</del> for flat or bent glass sheets}</li> </ul>
<b>U</b>	<b>C03B 35/00</b>	<b>Transporting of glass products during their manufacture, {e.g. hot glass lenses, prisms}(conveying systems for fragile sheets, e.g. glass <a href="#">B65G 49/06</a>)</b>
U	C03B 35/14	<ul style="list-style-type: none"> <li>• Transporting hot glass sheets {or ribbons, e.g. by heat-resistant conveyor belts or bands}</li> </ul>
	C03B 35/16	<ul style="list-style-type: none"> <li>• • by roller <del>conveyeers</del><del>conveyors</del></li> </ul>
<b>U</b>	<b>C03B 37/00</b>	<b>Manufacture or treatment of flakes, fibres, or filaments from softened glass, minerals, or slags</b>
U	C03B 37/01	<ul style="list-style-type: none"> <li>• Manufacture of glass fibres or filaments</li> </ul>
U	C03B 37/012	<ul style="list-style-type: none"> <li>• • Manufacture of preforms for drawing fibres or filaments</li> </ul>
U	C03B 37/01205	<ul style="list-style-type: none"> <li>• • • {starting from tubes, rods, fibres or filaments (<a href="#">C03B 37/014</a> takes precedence)}</li> </ul>
U	C03B 37/01211	<ul style="list-style-type: none"> <li>• • • • {by inserting one or more rods or tubes into a tube}</li> </ul>
	C03B 37/01217	<ul style="list-style-type: none"> <li>• • • • • {for making preforms of polarisation-<del>maintaning</del><del>maintaining</del> optical fibres (polarisation-maintaining optical fibres per se <a href="#">G02B 6/105</a>)}</li> </ul>
U	C03B 37/02	<ul style="list-style-type: none"> <li>• • by drawing or extruding, {e.g. direct drawing of molten glass from nozzles; Cooling fins therefor (<a href="#">C03B 37/04</a> takes precedence; sizing of the fibres <a href="#">C03C 25/00</a>)}</li> </ul>
U	C03B 37/025	<ul style="list-style-type: none"> <li>• • • from reheated softened tubes, rods, fibres or filaments, {e.g. drawing fibres from preforms (draw-down of tubes, rods or preforms to reduced diameter preforms <a href="#">C03B 37/0124</a>)}</li> </ul>
U	C03B 37/027	<ul style="list-style-type: none"> <li>• • • • Fibres composed of different sorts of glass, {e.g. glass optical fibres} (<a href="#">C03B 37/0253</a>, <a href="#">C03B 37/028</a> take precedence)</li> </ul>
	C03B 37/0279	<ul style="list-style-type: none"> <li>• • • • • {Photonic crystal fibres or <del>microstrructured</del><del>microstructured</del> optical fibres other than holey optical fibres}</li> </ul>
<b>U</b>	<b>C03B 2205/00</b>	<b>Fibre drawing or extruding details</b>
	C03B 2205/32	<ul style="list-style-type: none"> <li>• Simultaneous drawing of multiple preforms to separate <del>mulitiple</del><del>multiple</del> fibres</li> </ul>
<b>U</b>	<b>C03B 2215/00</b>	<b>Press-moulding glass</b>
U	C03B 2215/02	<ul style="list-style-type: none"> <li>• Press-mould materials</li> </ul>
U	C03B 2215/08	<ul style="list-style-type: none"> <li>• • Coated press-mould dies</li> </ul>
U	C03B 2215/14	<ul style="list-style-type: none"> <li>• • • Die top coat materials, e.g. materials for the glass-contacting layers</li> </ul>
U	C03B 2215/16	<ul style="list-style-type: none"> <li>• • • • Metals or alloys, e.g. Ni-P, Ni-B, amorphous metals</li> </ul>
	C03B 2215/17	<ul style="list-style-type: none"> <li>• • • • • comprising one or more of the noble meals, i.e. Ag, Au, platinum <del>grop</del><del>group</del> metals</li> </ul>

**Project: N/A (C03C)****U C03C 2209/00**

C03C 2209/02

**Compositions specially applicable for the manufacture of vitreous glazes**- to produce non-uniformly **couloured** **coloured** glazes**Project: N/A (C04B)****C04B****LIME, MAGNESIA; SLAG; CEMENTS; COMPOSITIONS THEREOF, e.g. MORTARS, CONCRETE OR LIKE BUILDING MATERIALS; ARTIFICIAL STONE {(roofing granules [E04D 7/005](#))}; CERAMICS (devitrified glass-ceramics [C03C 10/00](#)); REFRACTORIES; TREATMENT OF NATURAL STONE**NOTES

1. In this subclass, the following terms or expressions are used with the meanings indicated:

- "fillers" includes pigments, aggregates and fibrous reinforcing materials;
- "active ingredients" includes processing aids or property improvers, e.g. grinding aids used after the burning process or used in the absence of a burning process;
- "mortars", "concrete" and "artificial stone" are to be considered as a single group of materials, and therefore, in the absence of an indication to the contrary, they include mortar, concrete and other cementitious compositions.

2. In groups [C04B 7/00](#) - [C04B 32/00](#), in the absence of an indication to the contrary, classification is made in the last appropriate place.

3. A composition classified in groups [C04B 26/00](#) or [C04B 28/00](#) is also classified in groups [C04B 14/00](#) - [C04B 24/00](#) if a filler or active ingredient is of interest.

4. In groups [C04B 2/00](#) - [C04B 32/00](#) and [C04B 38/00](#) - [C04B 41/00](#) it is desirable to classify the individual constituents of the mixtures, or other aspects relating to the mixtures or constituents, using Combination Sets with symbols chosen from groups [C04B 2/00](#) - [C04B 41/00](#).

5. In groups [C04B 2/00](#) - [C04B 32/00](#) and [C04B 38/00](#) - [C04B 41/00](#) it is desirable to classify the function of the individual constituents of the mixtures, or other aspects relating to the properties or uses of the mixtures or products obtained, using Combination Sets with symbols chosen from groups [C04B 2103/00](#) - [C04B 2111/00](#).

6. Groups [C04B 20/123](#) and [C04B 20/126](#) are used for indexing purposes only of documents classified in [C04B 20/12](#)

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">C04B 5/02</a>	covered by	<a href="#">B01J 2/00</a> , <a href="#">C21B 3/06</a>
<a href="#">C04B 28/20</a> , <a href="#">C04B 28/22</a>	covered by	<a href="#">C04B 28/18</a> , <a href="#">C04B 28/182</a> , <a href="#">C04B 28/184</a> , <a href="#">C04B 28/186</a> , <a href="#">C04B 28/188</a>
<a href="#">C04B 35/035</a>	covered by	<a href="#">C04B 35/26</a> , <a href="#">C04B 35/2608</a> , <a href="#">C04B 35/2616</a> , <a href="#">C04B 35/2625</a> , <a href="#">C04B 35/2633</a> , <a href="#">C04B 35/2641</a> , <a href="#">C04B 35/265</a> , <a href="#">C04B 35/2658</a> , <a href="#">C04B 35/2666</a> , <a href="#">C04B 35/2675</a> , <a href="#">C04B 35/2683</a> , <a href="#">C04B 35/2691</a>



C04B 35/567, C04B 35/569, C04B 35/576, C04B 35/577	covered by	<a href="#">C04B 35/565</a> , <a href="#">C04B 35/571</a> , <a href="#">C04B 35/573</a> , <a href="#">C04B 35/575</a> , <a href="#">C04B 35/5755</a> , <a href="#">C04B 35/806</a>
C04B 35/582	covered by	<a href="#">C04B 35/581</a> , <a href="#">C04B 35/806</a>
C04B 35/5833, C04B 35/5835	covered by	<a href="#">C04B 35/583</a> , <a href="#">C04B 35/806</a>
C04B 35/586, C04B 35/587, C04B 35/594, C04B 35/596	covered by	<a href="#">C04B 35/584</a> , <a href="#">C04B 35/589</a> , <a href="#">C04B 35/591</a> , <a href="#">C04B 35/593</a> , <a href="#">C04B 35/5935</a> , <a href="#">C04B 35/806</a>
C04B 35/599	covered by	<a href="#">C04B 35/597</a>
C04B 35/81	covered by	<a href="#">C04B 35/78</a>
C04B 35/84	covered by	<a href="#">C04B 35/628</a> , <a href="#">C04B 35/78</a>

**U C04B 20/00**

**Use of materials as fillers for mortars, concrete or artificial stone according to more than one of groups [C04B 14/00](#) - [C04B 18/00](#) and characterised by shape or grain distribution; Treatment of materials according to more than one of the groups [C04B 14/00](#) - [C04B 18/00](#) specially adapted to enhance their filling properties in mortars, concrete or artificial stone; Expanding or defibrillating materials**

NOTE

Fillers with a well-defined shape other than granular are considered to be reinforcing elements and thus are classified in [E04C 5/00](#). However, if they are only characterised by their composition, classification is made in [C04B](#) only

**U C04B 20/02**  
**C04B 20/08**

- Treatment
- • ~~Defibrillating~~ *Defibrillating* asbestos {(defibrillating other fibres [C04B 20/026](#))}

**U C04B 35/00**

Shaped ceramic products characterised by their composition {(porous ceramic products [C04B 38/00](#); ceramic articles characterised by particular shape, see the relevant classes, e.g. linings for casting ladles, tundishes, cups or the like [B22D 41/02](#); ceramic substrates for microelectronic semi-conductors [H01L 23/15](#))}; Ceramics compositions (containing free metal bonded to carbides, diamond, oxides, borides, nitrides, silicides, e.g. cermets, or other metal compounds, e.g. oxynitrides or sulfides other than as macroscopic reinforcing agents [C22C](#); {shaping of ceramics [B28B](#)}); Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products {(Chemical preparation of powders of inorganic compounds [C01](#); infiltration of sintered ceramic preforms with molten metal [C04B 41/51](#))}

NOTES

1. In this group, in the absence of an indication to the contrary, compositions are classified according to the constituent present in the highest proportion by weight.
2. In this group, magnesium is considered as an alkaline earth metal.
3. In this group, a composite is considered as a sintered material containing more than one phase, where the secondary phases are not resulting from sintering aids
4. In this group, fine ceramics are considered as products having a polycrystalline, fine-grained microstructure, e.g. of dimensions below 100 micrometers.
5. The production of ceramic powder is classified in this group in so far as it relates to the preparation of powder with specific characteristics.
6. In groups [C04B 35/00](#) - [C04B 35/83](#), from 01-01-2005 onwards, the indexing codes of groups [C04B 2235/00](#) - [C04B 2235/9692](#) are used to identify aspects relating to ceramic starting mixtures and sintered ceramic products

WARNING

Attention is drawn to WARNINGS 3 and 4 after subclass title

- U C04B 35/01      • based on oxide ceramics
- U C04B 35/10      • • based on aluminium oxide
- U C04B 35/111      • • • Fine ceramics
- C04B 35/115      • • • • Translucent or ~~transparent~~[transparent](#) products
- C04B 35/71      • Ceramic products containing macroscopic reinforcing agents ([C04B 35/66](#) takes precedence; {infiltration of a porous ceramic matrix with a material forming a non-ceramic phase [C04B 41/00](#), reaction infiltration with Si in order to form SiC [C04B 35/573](#), in order to form Si<sub>3</sub>N<sub>4</sub> [C04B 35/591](#)})

NOTE

In groups [C04B 35/71](#) - [C04B 35/83](#) the composition of the ceramic products is also ~~classified~~[classified](#) in groups [C04B 35/01](#) - [C04B 35/597](#)

**U C04B 40/00**

Processes, in general, for influencing or modifying the properties of mortars, concrete or artificial stone compositions, e.g. their setting or hardening ability (active ingredients [C04B 22/00](#) - [C04B 24/00](#); hardening of a well-defined composition [C04B 26/00](#) - [C04B 28/00](#); making porous, cellular or lightening [C04B 38/00](#); mechanical aspects [B28](#), e.g. conditioning the materials prior to shaping [B28B 17/02](#))

- U C04B 40/02      • Selection of the hardening environment

NOTE

In this group the following term is used with the meaning indicated:

- "hardening" covers also setting, pre-curing and curing

C04B 40/0295

- {Inhomogeneous curing or hardening, e.g. accelerated curing of surface regions of a concrete article; Influencing the setting or hardening process **otto** generate physical or mechanical effects, e.g. to create cracks}

U C04B 41/00

**After-treatment of mortars, concrete, artificial stone or ceramics; Treatment of natural stone (conditioning of the materials prior to shaping [C04B 40/00](#); applying liquids or other fluent materials to surfaces, in general [B05](#); grinding or polishing [B24](#); apparatus or processes for treating or working shaped articles of clay or other ceramic compositions, slag or mixtures containing cementitious material [B28B 11/00](#); working stone or stone-like materials [B28D](#); glazes, other than cold glazes, [C03C 8/00](#); etching, surface-brightening or pickling compositions [C09K 13/00](#))**

## NOTES

1. In this group, multiple classification is made according to the following rules:
  - when the substrate to be treated is of the artificial stone type, e.g. concrete, classification is made in the range [C04B 41/00](#) - [C04B 41/5392](#) as well as in the range [C04B 41/60](#) - [C04B 41/72](#)
  - when the substrate to be treated is of the ceramic type, classification is made in the range [C04B 41/00](#) - [C04B 41/5392](#) as well as in the range [C04B 41/80](#) - [C04B 41/91](#)
  - when the substrate to be treated is a-specific, classification is made only in the range [C04B 41/00](#) - [C04B 41/5392](#)
2. In groups [C04B 41/0018](#) - [C04B 41/53](#), in the absence of an indication to the contrary, classification is made in the last appropriate place.
3. Treating, e.g. coating or impregnating, a material with the same material or with a substance which ultimately is transformed into the same material is not considered after-treatment for this group but is classified as preparation of the material, e.g. a carbon body impregnated with a carbonisable substance is classified in [C04B 35/52](#).
4. In groups [C04B 41/00](#) - [C04B 41/53](#), it is desirable to add the indexing codes relating to the nature of the substrate being treated. The indexing codes, which are chosen from groups [C04B 26/00](#) - [C04B 38/00](#) should be unlinked.
5. In groups [C04B 41/00](#) - [C04B 41/53](#), it is desirable to add the indexing codes relating to aspects of the coating composition or to the method of application. The indexing codes, which are chosen from groups [C04B 41/00](#) - [C04B 41/5392](#) should be unlinked.
6. Attention is drawn to internal Note (2) following the title of subclass [C04B](#).

U C04B 41/60

- of only artificial stone

U C04B 41/61

- • Coating or impregnation

C04B 41/70

- • • for obtaining at least two superposed coatings having **differentdifferent** compositions

U C04B 41/80

- of only ceramics

U C04B 41/81

- • Coating or impregnation

C04B 41/89

- • • for obtaining at least two superposed coatings having **differentdifferent** compositions

U C04B 2235/00

**Aspects relating to ceramic starting mixtures or sintered ceramic products**

## NOTE

In this group, magnesium is considered as an alkaline earth metal.

- U C04B 2235/02
- Composition of constituents of the starting material or of secondary phases of the final product

**NOTE**

Indexing codes [C04B 2235/02](#) - [C04B 2235/5481](#) are to be used only if the aspect is not trivial or not standard, e.g. if water is used as a mixing medium for a powder, whereas normally an organic mixing medium is used or if not the standard alpha-alumina is used to make an alumina ceramic but gamma-alumina in stead.

- U C04B 2235/50
- Constituents or additives of the starting mixture chosen for their shape or used because of their shape or their physical appearance
- U C04B 2235/52
- Constituents or additives characterised by their shapes
- U C04B 2235/5208
- Fibers
- C04B 2235/526
- characterised by the length of the fibers
- C04B 2235/5264
- characterised by the diameter of the fibers
- U C04B 2235/70
- Aspects relating to sintered or melt-casted ceramic products
- U C04B 2235/96
- Properties of ceramic products, e.g. mechanical properties such as strength, toughness, wear resistance

**NOTE**

Codes [C04B 2235/96](#) - [C04B 2235/9692](#) are to be used only if the property is not identified already by an "invention information" symbol, e.g. by a symbol out of subclass [H01L](#) indicating that the ceramic is dielectric, piezoelectric or magnetic.

- U C04B 2235/9646
- Optical properties
- C04B 2235/9653
- Translucent or transparent ceramics other than alumina

**Project: N/A (C06B)**

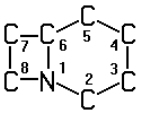
- U C06B 45/00
- Compositions or products which are defined by structure or arrangement of component of product (explosive charges of particular form or shape [F42B 1/00](#), [F42B 3/00](#))**
- U C06B 45/04
- comprising solid particles dispersed in solid solution or matrix {not used for explosives where the matrix consists essentially of nitrated carbohydrates or a low molecular organic explosive}
- U C06B 45/06
- the solid solution or matrix containing an organic component
- C06B 45/08
- the dispersed solid containing an inorganic explosive or an inorganic thermic component

**Project: N/A (C07C)**

- U C07C 5/00
- Preparation of hydrocarbons from hydrocarbons containing the same number of carbon atoms**
- C07C 5/22
- by isomerisation (~~with simultaneous hydrogenation C07C 5/13~~; with simultaneous ~~dehydrogenation~~ ~~hydrogenation~~ [C07C 5/373](#) [C07C 5/13](#); with [simultaneous dehydrogenation C07C 5/373](#))
- U C07C 23/00
- Compounds containing at least one halogen atom bound to a ring other than a six-membered aromatic ring**
- U C07C 23/18
- Polycyclic halogenated hydrocarbons
- U C07C 23/20
- with condensed rings none of which is aromatic
- C07C 23/24
- with a bicyclo ring system containing five carbon atoms
- C07C 23/27
- with a bicyclo ring system ~~containing~~ [containing](#) seven carbon atoms

- U C07C 63/00** **Compounds having carboxyl groups bound to a carbon atom of six-membered aromatic rings**
- U C07C 63/33 • Polycyclic acids
  - U C07C 63/337 • • with carboxyl groups bound to condensed ring systems
  - U C07C 63/34 • • • containing two {condensed} rings
  - C07C 63/38 • • • • ~~containig~~containing two carboxyl groups both bound to carbon atoms of the condensed ring system
- U C07C 309/00** **Sulfonic acids; Halides, esters, or anhydrides thereof**
- U C07C 309/01 • Sulfonic acids
  - U C07C 309/28 • • having sulfo groups bound to carbon atoms of six-membered aromatic rings of a carbon skeleton
  - U C07C 309/41 • • • containing singly-bound oxygen atoms bound to the carbon skeleton
  - C07C 309/43 • • • • having at least one of the sulfo groups bound to a carbon atom ~~of a~~ of a six-membered aromatic ring being part of a condensed ring system
- U C07C 2531/00** **Catalysts comprising hydrides, coordination complexes or organic compounds**
- NOTE
- The indexing codes of group [C07C 2531/00](#) are associated with groups [C07C 1/00](#) - [C07C 6/00](#).
- U C07C 2531/02 • containing organic compounds or metal hydrides
  - C07C 2531/06 • • ~~containig~~containing polymers

**Project: N/A (C07D)**

- U C07D 463/00** **Heterocyclic compounds containing 1-azabicyclo [4.2.0] octane ring systems, i.e. compounds containing a ring system of the formula:**
- 
, e.g. carbacephalosporins; Such ring systems being further
- condensed, e.g. 2,3-condensed with an oxygen-, nitrogen- or sulfur-containing hetero ring**
- WARNING
- The IPC subgroups of [C07D 463/00](#), introduced in the CPC scheme in October 2007, might be temporarily incomplete as a number of documents presently classified in CPC subgroups of [C07D 463/00](#) still needs reclassification to these IPC subgroups
- C07D 463/10 • with a carbon atom having three bonds to hetero atoms with ~~at the~~ at the most one bond to halogen, e.g. an ester or nitrile radical, directly attached in position 2

**Project: N/A (C07J)**

- U C07J 41/00** **Normal steroids containing one or more nitrogen atoms not belonging to a hetero ring**
- C07J 41/0033 • {not covered by [C07J 41/0005](#)}
- NOTE
- In groups [C07J 41/0038](#) - [C07J 41/0094](#) all references to substituents in ~~postion~~position 17-beta of the steroid skeleton include substituents at the 17-

position when there is a double bond to or from position 17, and all references to an amide group include all nitrogen substituted carbonyl groups

## Project: N/A (C07K)

### U C07K 7/00

#### Peptides having 5 to 20 amino acids in a fully defined sequence; Derivatives thereof

##### NOTE

In this subgroup cyclic compounds related to specific compounds which are classified in a specific group, e.g. [C07K 7/062](#), are classified in this specific group only

### U C07K 7/50

- Cyclic peptides containing at least one abnormal peptide link

### U C07K 7/54

- • with at least one abnormal peptide link in the ring

### C07K 7/56

- • • the cyclisation not ~~occurring~~ occurring through 2,4-diamino-butanoic acid

### C07K 7/60

- • • the cyclisation ~~occurring~~ occurring through the 4-amino group of 2,4-diamino-butanoic acid

### U C07K 14/00

#### Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof

### U C07K 14/435

- from animals; from humans

### U C07K 14/46

- • from vertebrates

### U C07K 14/47

- • • from mammals

### U C07K 14/4701

- • • • {not used}

### U C07K 14/4702

- • • • • {Regulators; Modulating activity}

### C07K 14/4703

- • • • • {Inhibitors; ~~Supressors~~ Suppressors}

### C07K 2316/00

#### Immunoglobulins specific ~~features~~ features

### C07K 2317/00

#### Immunoglobulins specific ~~features~~ features

### U C07K 2319/00

#### Fusion polypeptide

### C07K 2319/30

- Non-immunoglobulin-derived peptide or protein having an ~~imunoglobulin~~ immunoglobulin constant or Fc region, or a fragment thereof, attached thereto

## Project: N/A (C08F)

### U C08F 4/00

#### Polymerisation catalysts (catalysts in general [B01J](#))

##### NOTES

1. Group [C08F 4/00](#) and subgroups can be incomplete according to the following classification rules:

- if a catalyst is specifically used for only one type of polymer, it is not classified in [C08F 4/00](#);
- in such a case, the classification symbol of [C08F 4/00](#) providing for the catalyst may be used as a symbol for a C-Set in the groups providing for the polymer, e.g. ( [C08F 12/04](#), [C08F 4/62](#) )
- this method of classification is applied only when a note after the group providing for the polymer explicitly indicates which symbols of [C08F 4/00](#) may be used for forming the C-set.

2. When classifying in group [C08F 4/00](#), the type of catalyst can be further indexed by using indexing codes chosen from [C08F 2410/00](#), [C08F 2420/00](#) or their subgroups



- U C08F 4/42      • Metals; Metal hydrides; Metallo-organic compounds; Use thereof as catalyst precursors
- U C08F 4/44      • • selected from light metals, zinc, cadmium, mercury, copper, silver, gold, boron, gallium, indium, thallium, rare earths or actinides
- U C08F 4/60      • • • together with refractory metals, iron group metals, platinum group metals, manganese, rhenium {technetium} or compounds thereof

NOTES

1. In groups [C08F 4/60](#) - [C08F 4/64](#), the term "component" comprises the transition metal or a compound thereof, pretreated or not { (pretreating per se [C08F 4/61](#), [C08F 4/63](#) and [C08F 4/65](#) ) }

2. Group [C08F 4/60003](#) takes precedence over groups [C08F 4/602](#) - [C08F 4/619](#)

- U C08F 4/62      • • • • Refractory metals or compounds thereof

NOTE

Group [C08F 4/62003](#) takes precedence over groups [C08F 4/622](#) - [C08F 4/639](#)

- U C08F 4/64      • • • • • Titanium, zirconium, hafnium or compounds thereof

NOTE

Group [C08F 4/64003](#) takes precedence over groups [C08F 4/642](#) - [C08F 4/659](#)

- C08F 4/643      • • • • • Component ~~covered~~[covered](#) by group [C08F 4/64](#) with a metal or compound covered by group [C08F 4/44](#) other than an organo-aluminium compound {([C08F 4/64003](#) - [C08F 4/64196](#) take precedence)}

**Project: N/A (C09C)**

- U C09C 1/00      **Treatment of specific inorganic materials other than fibrous fillers (luminescent or tenebrescent materials [C09K](#)); Preparation of carbon black**
- C09C 1/0081      • {Composite particulate pigments or fillers, i.e. containing at least two solid phases, except those consisting of coated ~~particules~~[particles](#) of one compound ([C09C 1/0015](#), [C09C 1/0078](#) take precedence)}

## Project: N/A (C09D)

## C09D

COATING COMPOSITIONS, e.g. PAINTS, VARNISHES OR LACQUERS; FILLING PASTES; CHEMICAL PAINT OR INK REMOVERS; INKS; CORRECTING FLUIDS; WOODSTAINS; PASTES OR SOLIDS FOR COLOURING OR PRINTING; USE OF MATERIALS THEREFOR (cosmetics [A61K](#); processes for applying liquids or other fluent materials to surfaces, in general, [B05D](#); staining wood [B27K 5/02](#); glazes or vitreous enamels [C03C](#); organic macromolecular compounds [C08](#); organic dyes or closely-related compounds for producing dyes, mordants or lakes, *per se*, [C09B](#); treatment of inorganic materials other than fibrous fillers used as pigments or fillers [C09C](#); natural resins, French polish, drying-oils, driers, turpentine, *per se*, [C09F](#); polishing compositions other than French polish, ski waxes [C09G](#); preparation of glue or gelatine [C09H](#), {[C08H 1/06](#)} ; adhesives or use of materials as adhesives [C09J](#); materials for sealing or packing joints or covers [C09K 3/10](#); materials for stopping leaks [C09K 3/12](#); processes for the electrolytic or electrophoretic production of coatings [C25D](#); textile-treating compositions [D06](#); paper-making [D21](#); conductors, insulators [H01B](#))

## NOTES

- In this subclass, the following terms or expressions are used with the meanings indicated:
  - "use of materials for coating compositions" means the use of known or new polymers or products;
  - "rubber" includes:
    - natural or conjugated diene rubbers;
    - rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for coating compositions based on such macromolecular compounds);
  - "based on" is defined by means of Note 3, below;
  - "filling pastes" means materials used to fill up the holes or cavities of a substrate in order to smooth its surface prior to coating.
- In this subclass, coating compositions containing specific macromolecular substances are classified only according to the macromolecular substance, non-macromolecular substances not being taken into account.
 

Example: a coating composition containing polyethene and amino-propyltrimethoxysilane is classified in group [C09D 123/06](#).

However, coating compositions containing combinations of organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond with prepolymers or polymers other than unsaturated polymers of groups [C09D 159/00](#) - [C09D 187/00](#) are classified according to the unsaturated non-macromolecular component in group [C09D 4/00](#).

Example: a coating composition containing polyethene and styrene monomer is classified in group [C09D 4/06](#).

Aspects relating to the physical nature of the coating compositions or to the effects produced, as defined in group [C09D 5/00](#), if clearly and **explicitly** stated, are also classified in this subclass.

Coating compositions characterised by other features, e.g. additives, are classified in group [C09D 7/00](#), unless the macromolecular constituent is specified.
- In this subclass, coating compositions comprising two or more macromolecular constituents are classified according to the macromolecular constituent or constituents present in the highest proportion, i.e. the constituent on which the composition is based. If the composition is based on two or more constituents, present in equal proportions, the composition is classified according to each of these constituents.
 

Examples:

A coating composition containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in group [C09D 123/06](#);

A coating composition containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in groups [C09D 123/06](#) and [C09D 127/06](#).

4. Documents classified up until 04.2012: after the notation of group [C09D 4/06](#), and separated therefrom by a + sign, notations concerning the macromolecular compound may be added. The notations are selected from the main groups [C08F 251/00](#) - [C08F 291/00](#) and from the subgroups of [C08F 290/00](#) - [C08F 290/048](#) and [C08F 290/08](#) - [C08F 290/128](#).

Example: a paint based on a mixture of methylmethacrylate monomer and a polymer of vinylchloride is classified in [C09D 4/06](#) + [C08F 259/04](#).

5. From April 2012 onwards, after the notation [C09D 4/00](#), classification concerning the monomer may be added, in the form of C-sets. The notation is selected from [C08F 210/00](#) - [C08F 246/00](#), [C08G 77/00](#) - [C08G 77/04](#) or [C08G 77/20](#) - [C08G 77/30](#). Ex.: A paint based on a mixture of methylmethacrylate monomer and a polymer of vinylchloride is classified ( [C09D 4/06](#), [C08F 259/04](#) ).

6. Documents classified up until 09-2003: Classification is given in the form of C-Sets. The polymer in majority is given a [C09D 101/00](#) - [C09D 201/10](#) symbol, and the minor components are characterised by Indexing Codes taken from the list below. The Indexing Codes are linked. The polymer in majority is always first in the C-set. List of [C08L](#) codes: [C08L 23/00](#), [C08L 23/26](#), [C08L 25/00](#), [C08L 27/00](#), [C08L 27/04](#), [C08L 27/12](#), [C08L 29/00](#), [C08L 31/00](#), [C08L 33/00](#), [C08L 35/00](#), [C08L 37/00](#), [C08L 51/00](#), [C08L 53/00](#), [C08L 55/02](#), [C08L 61/04](#), [C08L 61/20](#), [C08L 63/00](#), [C08L 67/00](#), [C08L 67/02](#), [C08L 67/025](#), [C08L 67/03](#), [C08L 67/04](#), [C08L 67/06](#), [C08L 67/07](#), [C08L 69/00](#), [C08L 69/005](#), [C08L 71/00](#), [C08L 75/04](#), [C08L 77/00](#), [C08L 77/08](#), [C08L 77/12](#), [C08L 79/08](#), [C08L 79/085](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 85/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/00](#) - [C08L 2666/86](#). Documents from group [C09D 123/00](#) - [C09D 123/36](#), [C09D 145/00](#) - [C09D 145/02](#) and [C09D 149/00](#) have all been reclassified following Note 3 below. An additive is classified in the last appropriate place in the list as selected for each [C09D](#) group.

Examples:

- A coating composition based on a polyamide and a graft polymer is classified in ([C09D 177/00](#), [C08L 2666/24](#)).
- A coating composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to note 4 of [C08K](#), i.e. in [C08K 3/26](#) and [C09D 127/06](#). If this coating composition contains also a polyamide, then the classification will be ([C09D 127/06](#), [C08L 77/00](#), [C08K 3/26](#)).
- A coating composition based on a polysiloxane ([C09D 183/04](#)) and containing a second polysiloxane, a phenol and silica is classified in ([C09D 183/04](#), [C08L 83/04](#), [C08L 2666/34](#), [C08L 2666/54](#)).

7. From 01.09.2003 until April 2012: Classification is given in the form of C-Sets. The polymer in majority is given a [C09D](#) symbol, and the minor components are characterised by Indexing Codes taken from [C08L](#) or [C08K](#) and they are linked or unlinked. The polymer in majority is always first in the C-set. List of indexing codes in the C-Sets: [C08L 1/00](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/02](#) - [C08L 2666/08](#), [C08L 2666/14](#) - [C08L 2666/26](#).

Examples:

- A coating of 60 parts polyvinylchloride ([C09D 127/06](#)) and 40 parts polyamide is classified in ([C09D 127/06](#), [C08L 2666/20](#)), [C08L 77/00](#).
- A coating of 50 parts polyvinylchloride ([C09D 127/06](#)) and 50 parts polyamide ([C09D 177/00](#)) is classified in ([C09D 127/06](#), [C08L 2666/20](#)), and [C08L 77/00](#), as well as ([C09D 177/00](#), [C08L 2666/04](#)) and [C08L 27/06](#).
- A coating composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to [N: Note 4 of [C08K](#), i.e. in [C08K 3/26](#), [C09D 127/06](#). If this composition contains also a polyamide, then the classification will be ([C09D 127/06](#), [C08L 2666/20](#)) and [C08K 3/26](#).

- d. A composition based on a first polysiloxane ([C09D 183/04](#)) and containing a second polysiloxane, a phenol and silica is classified in ([C09D 183/04](#), [C08L 83/00](#), [C08K 5/13](#), [C08K 3/36](#)) and [C08L 2205/02](#).
8. From April 2012 onwards, after the notation of groups [C09D 101/00](#) - [C09D 201/00](#), notations concerning the other constituents of the coating composition may be added, in the form of C-Sets. The further constituent is added with an indexing code. The indexing codes are chosen from [C08L 1/00](#) - [C08L 2555/86](#) or [C08K](#) and they may be linked or unlinked: - [C08L 1/00](#) - [C08L 101/10](#) are linked. - [C08L 2201/00](#) - [C08L 2555/86](#) are unlinked. The polymer in majority is always first in the C-set. Examples:
- A coating composition containing polyethylene and amino-propyltrimethoxysilane is classified in groups [C09D 123/06](#) and [C08K 5/544](#) (unlinked).
  - A coating composition containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in ([C09D 123/06](#), [C08L 27/06](#)).
  - A coating composition containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in ([C09D 123/06](#), [C08L 27/06](#)) and ([C09D 127/06](#), [C08L 23/06](#)).
  - A coating composition containing 90% of polysiloxane ([C09D 183/04](#)) further containing 10% of polyester ([C08L 67/00](#)) and an alcohol is classified in ([C09D 183/04](#), [C08L 67/00](#), [C08K 5/05](#)).

#### WARNING

The following IPC groups are not used in the CPC system. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">C09D 4/02</a>	covered by	<a href="#">C09D 4/00</a> , <a href="#">C08F 220/00</a>
<a href="#">C09D 4/04</a>	covered by	<a href="#">C09D 4/00</a> , <a href="#">C08F 222/00</a>
<a href="#">C09D 5/23</a>	covered by	<a href="#">H01F 41/16</a>
<a href="#">C09D 5/25</a>	covered by	<a href="#">H01B 3/308</a>
<a href="#">C09D 5/33</a>	covered by	<a href="#">C09D 5/004</a>
<a href="#">C09D 5/46</a>	covered by	<a href="#">C09D 5/03</a>
<a href="#">C09D 161/08</a> , <a href="#">C09D 161/10</a>	covered by	<a href="#">C09D 161/06</a>
<a href="#">C09D 163/02</a>	covered by	<a href="#">C09D 163/00</a>
<a href="#">C09D 171/08</a>	covered by	<a href="#">C09D 171/02</a>
<a href="#">C09D 171/10</a>	covered by	<a href="#">C09D 171/12</a>
<a href="#">C09D 183/05</a>	covered by	<a href="#">C09D 183/04</a>
<a href="#">C09D 183/07</a>	covered by	<a href="#">C09D 183/04</a> , <a href="#">C09D 183/06</a>

#### Project: N/A (C09H)

C09H 3/00

Isolation of glue or gelatine from raw materials, e.g. by ~~extrating~~**extracting**, by heating (gelatine for foodstuffs [A23J 1/10](#))

C09H 3/02

• Purification of ~~solutions~~**solutions** of gelatine

## Project: N/A (C09J)

## C09J

**ADHESIVES; NON-MECHANICAL ASPECTS OF ADHESIVE PROCESSES IN GENERAL; ADHESIVE PROCESSES NOT PROVIDED FOR ELSEWHERE; USE OF MATERIALS AS ADHESIVES** (surgical adhesives [A61L 24/00](#); processes for applying liquids or other fluent materials to surfaces in general [B05D](#); adhesives on the basis of non specified organic macromolecular compounds used as bonding agents in layered products [B32B](#); organic labelling fabrics or comparable materials or articles with deformable surface using adhesives and thermo-activatable adhesives respectively [B65C 5/02](#), [B65C 5/04](#); organic macromolecular compounds [C08](#); production of multi-layer textile fabrics [D06M 17/00](#); preparation of glue or gelatine [C09H](#); adhesive labels, tag tickets or similar identification of indication means [G09F 3/10](#))

NOTES

1. In this subclass, the following terms or expressions are used with the meanings indicated:

- "use of materials as adhesives" means the use of known or new polymers or products;
- "rubber" includes:
  - a. natural or conjugated diene rubbers;
  - b. rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for adhesives based on such macromolecular compounds);
- "based on" is defined by means of Note 3, below.

2. In this subclass, adhesives containing specific macromolecular substances are classified only according to the macromolecular substance, non-macromolecular substances not being taken into account.

Example: an adhesive containing polyethene and amino-propyltrimethoxysilane is classified in group [C09J 123/06](#).

However, adhesives containing combinations of organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond with prepolymers or polymers other than unsaturated polymers of groups [C09J 159/00](#) - [C09J 187/00](#) are classified according to the unsaturated non-macromolecular component in group [C09J 4/00](#).

Example: an adhesive containing polyethene and styrene monomer is classified in group [C09J 4/06](#).

Aspects relating to the physical nature of the adhesives or to the effects produced, as defined in group [C09J 9/00](#), if clearly and **explicitly** stated, are also classified in this subclass. Adhesives characterised by other features, e.g. additives, are classified in group [C09J 11/00](#), unless the macromolecular constituent is specified.

3. In this subclass, adhesives comprising two or more macromolecular constituents are classified according to the macromolecular constituent or constituents present in the highest proportion, i.e. the constituent on which the adhesive is based. If the adhesive is based on two or more constituents, present in equal proportions, the adhesive is classified according to each of these constituents.

Examples: An adhesive containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in group [C09J 123/06](#); An adhesive containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in groups [C09J 123/06](#) and [C09J 127/06](#).

4. An adhesive composition containing polyethylene and amino-propyltrimethoxysilane is classified in groups [C09J 123/06](#) and [C08K 5/544](#)

5. Documents classified up until 09-2003: Classification is given in the form of C-Sets. The polymer in majority is given a [C09J 101/00](#) - [C09J 201/10](#) symbol, and the minor components are characterised by Indexing Codes taken from the

list below. The Indexing Codes are linked. The polymer in majority is always first in the C-set.

List of [C08L](#) codes: [C08L 23/00](#), [C08L 23/26](#), [C08L 25/00](#), [C08L 27/00](#), [C08L 27/04](#), [C08L 27/12](#), [C08L 29/00](#), [C08L 31/00](#), [C08L 33/00](#), [C08L 35/00](#), [C08L 37/00](#), [C08L 51/00](#), [C08L 53/00](#), [C08L 55/02](#), [C08L 61/04](#), [C08L 61/20](#), [C08L 63/00](#), [C08L 67/00](#), [C08L 67/02](#), [C08L 67/025](#), [C08L 67/03](#), [C08L 67/04](#), [C08L 67/06](#), [C08L 67/07](#), [C08L 69/00](#), [C08L 69/005](#), [C08L 71/00](#), [C08L 75/04](#), [C08L 77/00](#), [C08L 77/08](#), [C08L 77/12](#), [C08L 79/08](#), [C08L 79/085](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 85/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/00](#) - [C08L 2666/86](#). An additive is classified in the last appropriate place in the list as selected for each [C09J](#) group. Examples:

- a. An adhesive composition based on a polyamide and a graft polymer is classified in ([C09J 177/00](#), [C08L 2666/24](#)).
- b. An adhesive composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to note 4 of [C08K](#), i.e. in [C08K 3/26](#) and [C09J 127/06](#). If this adhesive composition contains also a polyamide, then the classification will be ([C09J 127/06](#), [C08L 77/00](#), [C08K 3/26](#)).
- c. An adhesive composition based on a polysiloxane ([C09J 183/04](#)) and containing a second polysiloxane, a phenol and silica is classified in ([C09J 183/04](#), [C08L 83/04](#), [C08L 2666/34](#), [C08L 2666/54](#)).

6. From April 2012, after the notation [C09J 4/00](#), classification concerning the monomer may be added, in the form of C-sets. The notation is selected from [C08F 210/00](#) - [C08F 246/00](#), [C08G 77/00](#) - [C08G 77/04](#) or [C08G 77/20](#) - [C08G 77/30](#).

Ex. 1: An adhesive based on methylmethacrylate monomer is classified in ([C09J 4/00](#), [C08F 220/00](#)).

Ex. 2: An adhesive based on a dialkoxysilane monomer compound is classified in ([C09J 4/00](#), [C08G 77/04](#)).

7. From 01.09.2003 until April 2012: Classification is given in the form of C-Sets. The polymer in majority is given a [C08L](#) class, and the minor components are characterised by Indexing Codes taken from [C08L](#) or [C08K](#) and they are linked or unlinked. The polymer in majority is always first in the C-set. List of indexing codes in the C-Sets: [C08L 1/00](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/02](#) - [C08L 2666/08](#), [C08L 2666/14](#) - [C08L 2666/26](#).

Examples:

- a. An adhesive blend of 60 parts polyvinylchloride ([C09J 127/06](#)) and 40 parts polyamide is classified in ([C09J 127/06](#), [C08L 2666/20](#)), [C08L 77/00](#).
- b. An adhesive blend of 50 parts polyvinylchloride ([C09J 127/06](#)) and 50 parts polyamide ([C09J 177/00](#)) is classified in ([C09J 127/06](#), [C08L 2666/20](#)), ([C09J 177/00](#), [C08L 2666/04](#)), [C08L 77/00](#) and [C08L 27/06](#).
- c. An adhesive composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to [N: Note 4 of [C08K](#), i.e. in [C08K 3/26](#), [C09J 127/06](#). If this composition contains also a polyamide, then the classification will be ([C09J 127/06](#), [C08L 2666/20](#)) and [C08K 3/26](#).
- d. A composition based on a first polysiloxane ([C09J 183/04](#)) and containing a second polysiloxane, a phenol and silica is classified in ([C09J 183/04](#), [C08L 83/00](#), [C08K 5/13](#), [C08K 3/36](#)) and [C08L 2205/02](#).

8. From April 2012 onwards, after the notation of groups [C09J 101/00](#) - [C09J 201/00](#), notations concerning the other constituents of the adhesive composition may be added, in the form of C-sets. The further constituent is added with an indexing code. The indexing codes are chosen from [C08L 1/00](#) - [C08L 2555/86](#) or [C08K](#) and they may be linked or unlinked: - [C08L 1/00](#) - [C08L 101/16](#) are linked. - [C08L 2201/00](#) - [C08L 2555/86](#) are unlinked. The polymer in majority is always first in the C-set.

Examples:

- a. An adhesive composition containing polyethylene and amino-propyltrimethoxysilane is classified in groups [C09J 123/06](#) and [C08K 5/544](#) (unlinked).



- b. An adhesive containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in group ([C09J 123/06](#), [C08L 27/06](#)).
- c. An adhesive containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in groups ([C09J 123/06](#), [C08L 27/06](#)) and ([C09J 127/06](#), [C08L 23/06](#)).
- d. An adhesive containing 90% of polysiloxane ([C09J 183/04](#)) further containing of polyester ([C08L 67/00](#)) and an alcohol is classified in ([C09J 183/04](#), [C08L 67/00](#), [C08K 5/05](#)).

**WARNING**

The following IPC group is not used in the CPC system: Subject matter covered by these groups is classified in the following CPC group:

[C09J 163/02](#) covered by [C09J 163/00](#)

**Project: N/A (C09K)**

**U C09K 3/00**

**Materials not provided for elsewhere**

**NOTE**

When classifying in groups [C09K 3/10](#) - [C09K 3/1028](#) the properties and uses of the material can be further indexed by using indexing codes chosen from [C09K 2003/1034](#) - [C09K 2003/1096](#) and the chemical nature of the materials can be further indexed by using indexing codes chosen from [C09K 2200/00](#) - [C09K 2200/0697](#)

C09K 3/14

- Anti-slip materials; Abrasives {(products specifically intended for the fabrication of abrasive tools, blocks or papers, or for operations of the kind of sand-blasting and barrelling [B24B 31/14](#), [B24C 1/00](#); polishing compositions containing abrasive or grinding agents [C09G 1/02](#); ~~polishing of semi-conductors H01L~~; [polishing of semi-conductors H01L](#); friction compositions for brakes or clutches [F16D 69/02](#)}}

**NOTE**

In this group, boron and silicon are considered as being metals. Likewise for associations of carbon with metals, e.g. carbides.

**U C09K 11/00**

**Luminescent, e.g. electroluminescent, chemiluminescent materials**

C09K 11/06

- ~~containing~~[containing](#) organic luminescent materials

**NOTE**

When classifying in groups [C09K 11/06](#) and [C09K 11/07](#) the chemical nature of the luminescent material can be further indexed by using indexing codes chosen from [C09K 2211/00](#) - [C09K 2211/188](#)

**U C09K 11/08**

- containing inorganic luminescent materials

**NOTES**

1. In groups [C09K 11/08](#) - [C09K 11/897](#), in the absence of an indication to the contrary, classification of materials is made in the last appropriate place
2. { In this group, magnesium is considered as an alkaline earth metal }

**WARNING**

Groups [C09K 11/0805](#) - [C09K 11/0894](#), with the exception of [C09K 11/0883](#) for classifying nitrides, are no longer used for classification of new documents. The backlog of this group is being continuously reclassified to subgroups [C09K 11/54](#) - [C09K 11/897](#)

C09K 11/55

- • containing beryllium, magnesium, alkali metals or alkaline ~~earth~~[earth](#) metals

**U C09K 11/74**

- • containing arsenic, antimony or bismuth

- U C09K 11/7464
  - • • {Phosphates}
- C09K 11/7471
  - • • • {with alkaline ~~erth~~earth metals}
- U C09K 11/77
  - • containing rare earth metals
- U C09K 11/7783
  - • • {containing two or more rare earth metals one of which being europium}
- U C09K 11/779
  - • • • {Halogenides ([C09K 11/7784](#), [C09K 11/7792](#) - [C09K 11/7798](#) take precedence)}
- C09K 11/7791
  - • • • • {~~with~~with alkali or alkaline earth metals}
- U C09K 2208/00** **Aspects relating to compositions of drilling or well treatment fluids**
  - C09K 2208/12
    - Swell inhibition, i.e. using additives to drilling or well treatment fluids for inhibiting clay or shale swelling or ~~desintegrating~~disintegrating
- U C09K 2211/00** **Chemical nature of organic luminescent or tenebrescent compounds**
  - U C09K 2211/10
    - Non-macromolecular compounds
  - U C09K 2211/1003
    - • Carbocyclic compounds
  - C09K 2211/1007
    - • • Non-condensed ~~systemsm~~systems

**Project: N/A (C10B)**

- U C10B 49/00** **Destructive distillation of solid carbonaceous materials by direct heating with heat-carrying agents including the partial combustion of the solid material to be treated**
- U C10B 49/02
  - with hot gases or vapours, e.g. hot gases obtained by partial combustion of the charge
- U C10B 49/04
  - • while moving the solid material to be treated
- U C10B 49/08
  - • • in dispersed form
- C10B 49/12
  - • • • by mixing ~~tangetially~~tangentially, e.g. in vortex chambers

**Project: N/A (C10K)**

- U C10K 1/00** **Purifying combustible gases containing carbon monoxide (isolation of hydrogen from mixtures containing hydrogen and carbon monoxide [C01B 3/50](#))**
- U C10K 1/08
  - by washing with liquids; Reviving the used wash liquors (gas washers [B01D](#))
- C10K 1/085
  - • {two direct washing treatments, one with an ~~aqueous~~aqueous liquid and one with a non-aqueous liquid}

**Project: N/A (C10M)**

- U C10M 2201/00** **Inorganic compounds or elements as ingredients in lubricant compositions**
- U C10M 2201/08
  - Inorganic acids or salts thereof (of phosphorus [C10M 2201/085](#), of chromium [C10M 2201/086](#), of boron [C10M 2201/087](#); metal carbonates or bicarbonates [C10M 2201/062](#))
- C10M 2201/081
  - • ~~containg~~containing halogen
- U C10M 2207/00** **Organic non-macromolecular hydrocarbon compounds containing hydrogen, carbon and oxygen as ingredients in lubricant compositions**
- NOTE  
In this group compounds, (e.g. phenols, succinic acid) substituted by an alkyl group derived from a polymerised olefin are not considered as macromolecular compounds
- U C10M 2207/10
  - Carboxylic acids; Neutral salts thereof
- U C10M 2207/12
  - • having carboxyl groups bound to acyclic or cycloaliphatic carbon atoms

- C10M 2207/125      • • • having hydrocarbon chains of eight up to ~~twenty-nine~~~~twenty-nine~~ carbon atoms, i.e. fatty acids
- C10M 2207/26      • ~~Overbaed~~~~Overbased~~ carboxylic acid salts
- U C10M 2209/00      Organic macromolecular compounds containing oxygen as ingredients in lubricant compositions (oxidised hydrocarbons [C10M 2205/12](#))**
- U C10M 2209/02      • Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
- C10M 2209/04      • • containing monomers having an ~~unsaturaed~~~~unsaturated~~ radical bound to an alcohol or ester thereof; bound to an aldehyde, ketonic, ether, ketal or acetal radical
- C10M 2209/06      • • containing monomers having an ~~unsaturaed~~~~unsaturated~~ radical bound to an acyloxy radical of saturated carboxylic or carbonic acid
- C10M 2209/08      • • containing monomers having an unsaturated ~~rdical~~~~radical~~ bound to a carboxyl radical, e.g. acrylate type
- U C10M 2215/00      Organic non-macromolecular compounds containing nitrogen as ingredients in lubricant compositions**
- C10M 2215/02      • Amines, e.g. polyalkylene polyamines; Quaternary amines (polyalkylene polyamines ~~with~~~~with~~ eleven or more monomer units [C10M 2217/046](#))
- U C10M 2229/00      Organic macromolecular compounds containing atoms of elements not provided for in groups [C10M 2205/00](#), [C10M 2209/00](#), [C10M 2213/00](#), [C10M 2217/00](#), [C10M 2221/00](#) or [C10M 2225/00](#) as ingredients in lubricant compositions**
- U C10M 2229/04      • Siloxanes with specific structure
- C10M 2229/042      • • containing ~~alromatic~~~~aromatic~~ substituents

**Project: N/A (C11D)**

- U C11D 3/00      Other compounding ingredients of detergent compositions covered in group [C11D 1/00](#)**
- NOTE  
Documents classified in group [C11D 3/0005](#) are also classified in other groups of subclass [C11D](#) according to the chemical nature of the compounds as such
- U C11D 3/39      • Organic or inorganic per-compounds
- U C11D 3/3902      • • {combined with specific additives}
- C11D 3/3937      • • • {~~Stablising~~~~Stabilising~~ agents}

**Project: N/A (C12N)**

- U C12N 5/00      Undifferentiated human, animal or plant cells, e.g. cell lines; Tissues; Cultivation or maintenance thereof; Culture media therefor; (plant reproduction by tissue culture techniques [A01H 4/00](#))**

NOTE

In this group, the following words are used with the meanings indicated:

- a "totipotent" cell can differentiate into all somatic lineages (ectoderm, mesoderm, endoderm), the germ line and extra-embryonic tissues such as the placenta;
- a "pluripotent" cell is a somatic stem cell which can differentiate into cells of at least two of the three somatic lineages (ectoderm, mesoderm, endoderm);
- a "multipotent" cell is restricted to one lineage;
- "progenitor" and "precursor" cells are further restricted within the lineage. If not explicitly foreseen, totipotent cells are classified with pluripotent cells.

Multipotent cells should not be classified with pluripotent cells. Unless provided for otherwise, committed progenitors are classified with their progeny.

C12N 5/06

- {Animal cells or tissues; Human cells or tissues (preservation of living cells or tissues [A01N 1/02](#)); Not used, see subgroups}

#### NOTE

In this group, the following words are used with the meanings indicated:

- a "totipotent" cell can differentiate into all somatic lineages (ectoderm, mesoderm, endoderm), the germ line and extra-embryonic tissues such as the placenta;
- a "pluripotent" cell is a somatic stem cell which can differentiate into cells of at least two of the three somatic lineages (ectoderm, mesoderm, endoderm);
- a "multipotent" cell is restricted to one lineage.

"Progenitor" and "precursor" cells are further restricted within the lineage. If not ~~explicitly~~[explicitly](#) foreseen, totipotent cells are classified with pluripotent cells. Multipotent cells should not be classified with pluripotent cells

U C12N 5/0602

- {Vertebrate cells}

#### NOTE

Three-dimensional culture, tissue culture or organ culture are classified with the corresponding cells, if not specially provided for

C12N 5/0634

- • {Cells from the blood or the immune system}

#### NOTE

~~Committed~~[Committed](#) progenitors are classified with their progeny

C12N 5/0647

- • • {Haematopoietic stem cells; ~~Uncommitted~~[Uncommitted](#) or multipotent progenitors}

U C12N 15/00

**Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or genetically engineered micro-organisms, per se [C12N 1/00](#), [C12N 5/00](#), [C12N 7/00](#); new plants per se [A01H](#); plant reproduction by tissue culture techniques [A01H 4/00](#); new animals per se [A01K 67/00](#); use of medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases, gene therapy [A61K 48/00](#))**

U C12N 15/09

- Recombinant DNA-technology

U C12N 15/87

- • Introduction of foreign genetic material using processes not otherwise provided for, e.g. co-transformation

U C12N 15/873

- • • Techniques for producing new embryos, e.g. nuclear transfer, manipulation of totipotent cells or production of chimeric embryos

C12N 15/877

- • • • Techniques for producing new mammalian cloned ~~embryos~~[embryos](#)

U C12N 2710/00

**dsDNA Viruses (not used)**

U C12N 2710/00011

- dsDNA Viruses

U C12N 2710/16011

- • Herpesviridae

U C12N 2710/16211

- • • Lymphocryptovirus, e.g. human herpesvirus 4, Epstein-Barr Virus

C12N 2710/16221

- • • • Viruses as such, e.g. new isolates, mutants or their genomic ~~sequences~~[sequences](#)

Project: N/A (C12Q)

U C12Q 2565/00

**Nucleic acid analysis characterised by mode or means of detection**

- U C12Q 2565/50      • Detection characterised by immobilisation to a surface
- C12Q 2565/519      • • ~~characterised~~*characterised* by the capture moiety being a single stranded oligonucleotide

**Project: N/A (C21D)**

- U C21D 2241/00      **Treatments in a special environment**
- C21D 2241/03      • in zero gravity (e.g. in ~~space~~*space*)

**Project: N/A (C22C)**

- U C22C 5/00      **Alloys based on noble metals**
- U C22C 5/06      • Alloys based on silver
- C22C 5/08      • • with ~~copper~~*copper* as the next major constituent

**Project: N/A (C23C)**

- U C23C 14/00      **Coating by vacuum evaporation, by sputtering or by ion implantation of the coating forming material (discharge tubes with provision for introducing objects or material to be exposed to the discharge [H01J 37/00](#))**
- U C23C 14/22      • characterised by the process of coating
- C23C 14/223      • • {~~specialy~~*specialy* adapted for coating particles}

**Project: N/A (C25B)**

- U C25B 1/00      **Electrolytic production of inorganic compounds or non-metals**
- U C25B 1/24      • of halogens or compounds thereof
- C25B 1/245      • • {Fluorine; Compounds ~~therof~~*thereof*}

**Project: N/A (C25D)**

- U C25D 3/00      **Electroplating: Baths therefor**
- U C25D 3/02      • from solutions ([C25D 5/34](#) - [C25D 5/46](#) take precedence)
- U C25D 3/56      • • of alloys
- C25D 3/60      • • • containing more than 50% by weight of ~~of~~-tin {; SnP}

**Project: N/A (C30B)**

C30B 23/00      **Single-crystal growth by condensing evaporated or sublimed material**

NOTE

~~Groups C30B 23/002 - C30B 23/005 take precedence over groups C30B 23/007 - C30B 23/08~~

*Groups [C30B 23/002](#) - [C30B 23/005](#) take precedence over groups [C30B 23/007](#) - [C30B 23/08](#)*

WARNING

Group [C30B 23/002](#) - [C30B 23/005](#) are not complete, see also [C30B 23/02](#)

**Project: MP0322 (C30B)**

- U C30B 29/00      **Single crystals or homogeneous polycrystalline material with defined structure characterised by the material or by their shape (alloys [C22C](#))**

NOTE

In groups [C30B 29/02](#) - [C30B 29/58](#), in the absence of an indication to the contrary, a material is classified in the last appropriate place.

- U C30B 29/60 · characterised by shape
- M C30B 29/64 · · Flat crystals, e.g. plates, strips, ~~disks~~ or *discs*
- WARNING  
This group is not complete pending reclassification; see also [C30B 29/60](#) and subgroups

**Project: N/A (C30B)**

- U C30B 35/00 **Apparatus in general, specially adapted for the growth, production or after-treatment of single crystals or a homogeneous polycrystalline material with defined structure**
- C30B 35/007 · {Apparatus for preparing, pre-treating the source material ~~tie to~~ be used for crystal growth}
- WARNING  
This group is not complete pending reclassification; see also groups pertaining to the different crystal growth methods, particularly the main groups of subclass [C30B](#)

**Project: N/A (C40B)**

- U C40B 40/00 **Libraries per se, e.g. arrays, mixtures**
- C40B 40/02 · Libraries ~~contained in~~ *contained in* or displayed by micro-organisms, e.g. bacteria or animal cells; Libraries contained in or displayed by vectors, e.g. plasmids; Libraries containing only micro-organisms or vectors

**Project: MP0319 (D01D)**

- U D01D 1/00 **Treatment of filament-forming or like material (working of plastics or substances in a plastic state, in general [B29](#))**
- U D01D 1/06 · Feeding liquid to the spinning head (constructions of pumps [F04](#))
- M D01D 1/09 · · ~~Pressure~~ *Control of pressure*, temperature or feeding rate ~~regulation~~

**Project: MP0319 (D01G)**

- U D01G 23/00 **Feeding fibres to machines; Conveying fibres between machines ([D01G 21/00](#) takes precedence; intermediate feeds in carding machines [D01G 15/40](#))**
- U D01G 23/02 · Hoppers; Delivery shoots
- M D01G 23/04 · · with means for ~~regulating rate of~~ *controlling the* feed

**Project: RP0415 (E05B)**

- M E05B 65/00 **Locks {or fastenings} for special use ~~{{for dishwashers A47L 15/4259; hatch fastenings B63B 19/24; for container closures B65D 55/02; for elevator doors B66B 13/16; for lids or covers of refuse receptacles B65F 1/1615; for laundry washing machines D06F 37/42, D06F 39/14; for two wings E05C 7/00; safety devices F16P 3/08; for furnaces F24C 15/022; coin freed locks G07F 17/12, G07F 17/14; switches operated by key or combination H01H 27/00}}~~**
- M E05B 65/02 · for thin, hollow, or thin-metal wings ~~{, e.g. lockers}~~
- M E05B 65/06 · for swing doors {or windows, i.e. opening inwards ~~or~~ *and* outwards}
- M E05B 65/08 · for sliding wings ~~{{for vehicles E05B 83/04, E05B 83/40; holding sliding wings open E05C 17/60}}~~
- C E05B 65/44 · for furniture ~~or drawers~~ *(for drawers E05B 65/46)*



- E E05B 65/46
  - ~~Special locks~~ for drawers, ~~e.g. for a plurality of drawers~~ ~~{(for electronic unit cases H05K 7/1401)}~~
- M E05B 65/461
  - ~~•~~ {for cash drawers}
- M E05B 65/462
  - ~~•~~ {for ~~a plurality of~~ **two or more** drawers}
- M E05B 65/463
  - ~~•~~ • {Drawer interlock or anti-tilt mechanisms, i.e. when one drawer is open, ~~a number, e.g. all, at least one~~ of the remaining drawers ~~are~~ **is** locked}
- M E05B 65/464
  - ~~•~~ • • {comprising ~~a plurality of~~ **two or more** lock ~~element~~ **elements** aligned in end-to-end abutting relation}
- M E05B 65/465
  - ~~•~~ • • {with rotary locking bars}
- M E05B 65/466
  - ~~•~~ • • {with tensionable ~~or~~ flexible elements, e.g. cables, bands, chains or ropes}
- M E05B 65/467
  - ~~•~~ • {Locking bars secured in front of the drawers}
- M E05B 65/468
  - ~~•~~ • {using rotary ~~lock~~ **locking** bars ([E05B 65/465](#), [E05B 65/467](#) take precedence)}
- M E05B 2065/469
  - ~~•~~ {for drawers which can be opened from both sides}

## Project: N/A (E21C)

## E21C

## MINING OR QUARRYING

## NOTES

1. This subclass covers methods or apparatus specific to mining or quarrying
2. This subclass does not cover, even though they may be disclosed only for mining or quarrying, drill bits, bore reamers, core taking devices, drilling pipes or rods, handling, racking or connecting arrangements for drilling pipes or rods, counterboring or enlarging drilled holes, flame drilling, or other drilling apparatus, which are covered by subclass [E21B](#)

## WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

<a href="#">E21B 3/02</a>	covered by	<a href="#">E21B 3/02</a>
<a href="#">E21B 3/035</a>	covered by	<a href="#">E21B 3/035</a>
<a href="#">E21B 3/025</a>	covered by	<a href="#">E21B 3/025</a>
<a href="#">E21B 3/03</a>	covered by	<a href="#">E21B 3/03</a>
<a href="#">E21B 6/00</a>	covered by	<a href="#">E21B 6/00</a>
<b>E21C3/08</b>	covered by	<a href="#">B25D 9/06</a> , <b>B25D15/00</b>
<b>E21C3/10</b>	covered by	<b>B25D15/02</b>
<b>E21C3/12</b>	covered by	<a href="#">B25D 11/00</a>
<b>E21C3/14</b>	covered by	<a href="#">B25D 11/00</a>
<b>E21C3/20</b>	covered by	<a href="#">B25D 9/12</a>
<b>E21C3/22</b>	covered by	<a href="#">B25D 9/125</a>
<del>B25D 11/005</del> <b>B25D11/005</b>	covered by	<a href="#">B25D 9/265</a>
<b>E21C3/34</b>	covered by	<a href="#">B25D 17/08</a>
<a href="#">E21B 19/081</a>	covered by	<a href="#">E21B 19/081</a>
<a href="#">E21B 19/083</a>	covered by	<a href="#">E21B 19/083</a>
<a href="#">E21B 19/084</a>	covered by	<a href="#">E21B 19/084</a>
<a href="#">E21B 19/089</a>	covered by	<a href="#">E21B 19/089</a>
<a href="#">E21B 44/08</a>	covered by	<a href="#">E21B 44/08</a>
<a href="#">E21B 44/00</a>	covered by	<a href="#">E21B 44/00</a>
<a href="#">E21B 21/14</a>	covered by	<a href="#">E21B 21/14</a>
<a href="#">E21B 7/02</a>	covered by	<a href="#">E21B 7/02</a>
<a href="#">E21C 37/24</a>	covered by	<a href="#">B25D</a>

E21C 37/26	covered by	<a href="#">B25D</a>
E21C 41/18	covered by	<a href="#">E21C 41/16</a>
E21C 41/20	covered by	<a href="#">E21C 41/16</a>
E21C 41/22	covered by	<a href="#">E21C 41/16</a>
E21C 41/24	covered by	<a href="#">E21C 41/16</a>
E21C 41/28	covered by	<a href="#">E21C 41/26</a>
E21C 41/30	covered by	<a href="#">E21C 41/26</a>
E21C 45/02	covered by	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
E21C 45/04	covered by	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
E21C 45/06	covered by	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
E21C 45/08	covered by	<a href="#">E21C 25/60</a> , <a href="#">E21C 45/00</a>
E21C 50/00	covered by	<a href="#">E02F 3/88</a>
E21C 50/02	covered by	<a href="#">E02F 3/88</a>

### Project: MP0319 (F01C)

- U F01C 20/00** Control of, monitoring of, or safety arrangements for, machines or engines
- M F01C 20/24** • characterised by using valves ~~regulating~~ *for controlling* pressure or flow rate, e.g. discharge valves; ~~unloading valves~~ ([F01C 20/10](#) takes precedence)

### Project: MP0319 (F01K)

- U F01K 1/00** Steam accumulators (use of accumulators in steam engine plants [F01K 3/00](#))
- M F01K 1/12** • Multiple accumulators; Charging, discharging or ~~regulating peculiar thereto~~ *control specially adapted therefor*
- M F01K 1/16** • Other safety or ~~regulating control~~ means
- U F01K 3/00** Plants characterised by the use of steam or heat accumulators, or intermediate steam heaters, therein (regenerating exhaust steam [F01K 19/00](#))
- M F01K 3/02** • Use of accumulators and specific engine types; ~~Regulating Control~~ thereof
- M F01K 7/00** ~~Plants~~ *Steam engine plants* characterised by the use of specific types of engine ([F01K 3/02](#) takes precedence); Plants or engines characterised by their ~~e~~ use of special steam systems, cycles; or processes (~~reciprocating piston engines using uniflow principle F01B 17/04~~ *reciprocating-piston engines using uniflow principle F01B 17/04*); ~~Regulating Control~~ means ~~peculiar to specially adapted for~~ such systems, cycles; or processes; Use of withdrawn or exhaust steam for feed-water heating
- U F01K 7/02** • the engines being of multiple-expansion type (the engines being only of turbine type [F01K 7/16](#); the engines using steam of critical or overcritical pressure [F01K 7/32](#); the engines being of extraction or non-condensing type [F01K 7/34](#))
- M F01K 7/04** • • ~~Regulating Control~~ means ~~peculiar thereto~~ *specially adapted therefor*
- U F01K 7/06** • the engines being of multiple-inlet-pressure type ([F01K 7/02](#) takes precedence; the engines being only of turbine type [F01K 7/16](#); the engines using steam of critical or over-critical pressure [F01K 7/32](#); the engines being of extraction or non-condensing type [F01K 7/34](#))
- M F01K 7/08** • • ~~Regulating Control~~ means ~~peculiar thereto~~ *specially adapted therefor*
- U F01K 7/10** • characterised by the engine exhaust pressure (the engines being only of turbine type [F01K 7/16](#); the engines using steam of critical or over-critical pressure [F01K 7/32](#); the engines being of extraction or non-condensing type [F01K 7/34](#))
- U F01K 7/12** • • of condensing type

- M F01K 7/14      • • • **RegulatingControl** means **peculiar thereto***specialy adapted therefor*
- U F01K 7/16      • the engines being only of turbine type (the engines using steam of critical or overcritical pressure [F01K 7/32](#); the engines being of extraction or non-condensing type [F01K 7/34](#))
- M F01K 7/165      • • {**RegulatingControlling** means specially adapted therefor}
- U F01K 7/18      • • the turbine being of multiple-inlet-pressure type
- M F01K 7/20      • • • **RegulatingControl** means **peculiar thereto***specialy adapted therefor*
- U F01K 7/22      • • the turbines having inter-stage steam heating
- M F01K 7/24      • • • **RegulatingControl** or safety means **peculiar thereto***specialy adapted therefor*
- U F01K 7/26      • • the turbines having inter-stage steam accumulation
- M F01K 7/28      • • • **RegulatingControl** means **peculiar thereto***specialy adapted therefor*
- U F01K 13/00      General lay-out or general methods of operation of complete plants**
- M F01K 13/02      • **RegulatingControlling**, e.g. stopping or starting

**Project: MP0319 (F01N)**

- U F01N 3/00      Exhaust or silencing apparatus having means for purifying, rendering innocuous, or otherwise treating exhaust (electric control [F01N 9/00](#); monitoring or diagnostic devices for exhaust-gas treatment apparatus [F01N 11/00](#); {collecting or removing exhaust gases of vehicle engines in workshops [B08B 15/00](#), on highways [E01C 1/005](#))}**
- U F01N 3/08      • for rendering innocuous (using electric or electrostatic separators [F01N 3/01](#); chemical aspects [B01D 53/92](#))
- U F01N 3/10      • • by thermal or catalytic conversion of noxious components of exhaust (by using other chemical processes, chemical aspects of catalytic conversion, e.g. using specified catalysts, [B01D 53/34](#))
- M F01N 3/18      • • • characterised by methods of operation; **RegulationControl**
- M F01N 3/20      • • • specially adapted for catalytic conversion (*F01N 3/22 takes precedence*); {Methods of operation or **regulationcontrol** of catalytic converters}*(F01N 3/22 takes precedence)*
- M F01N 3/22      • • • **RegulationControl** of additional air supply only, e.g. using by-passes or variable air pump drives
- U F01N 3/24      • • • characterised by constructional aspects of converting apparatus (filtering in combination with catalytic reactors [F01N 3/035](#))
- M F01N 3/30      • • • Arrangements for supply of additional air (~~regulation, e.g. using air by-passes or variable air pump drives [F01N 3/22](#)~~*control, e.g. using by-passes or variable air pump drives, [F01N 3/22](#)*)

**Project: RP0377 (F03D)**

- U F03D 1/00      Wind motors with rotation axis substantially in wind direction (controlling [F03D 7/00](#))**
- D F03D 1/001      • {~~Assembly thereof (fixing wind-engaging part to rotor [F03D 1/0658](#)); Erecting methods; Equipments therefor (foundations [F03D 13/22](#))~~}  
<administratively transferred to [F03D 13/10](#)>
- D F03D 1/003      • {~~Maintenance or repair; Equipment therefor~~}  
<administratively transferred to [F03D 80/50](#)>
- D F03D 1/005      • {~~Transport; Equipments therefor~~}  
<administratively transferred to [F03D 13/40](#)>
- D F03D 1/006      • {~~Commisioning~~}  
<administratively transferred to [F03D 13/30](#)>

- D F03D 1/008
- {Balancing static or dynamic imbalances}  
<administratively transferred to [F03D 13/35](#)>
- U F03D 1/06
- F03D 1/065
- Rotors
  - {characterised by their construction, i.e. structural design details  
(~~F03D 1/001~~ [F03D 13/10](#) takes precedence)}
- M F03D 9/00**
- Adaptations of wind motors for special use; Combinations of wind motors with apparatus driven thereby; Wind motors specially adapted for installation in particular locations (hybrid wind-photovoltaic energy systems for the generation of electric power [H02S 10/12](#))**
- WARNING
- Group [F03D 9/00](#) is impacted by reclassification into groups [F03D 9/18](#), [F03D 9/19](#), [F03D 9/20](#), ~~F03D 9/22~~, ~~F03D 9/25~~, ~~F03D 9/28~~, [F03D 9/30](#), [F03D 9/32](#), [F03D 9/34](#), [F03D 9/35](#), [F03D 9/37](#), [F03D 9/39](#), [F03D 9/41](#), [F03D 9/43](#), [F03D 9/45](#), [F03D 9/46](#), [F03D 9/48](#) and [H02S 10/12](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- D F03D 9/001
- {the apparatus being a pump or compressor; Producing under- or overpressure (F03D 9/17 takes precedence)}
- WARNING
- Group F03D 9/001 is impacted by reclassification into group H02S 10/12. Groups F03D 9/001 and H02S 10/12 should be considered in order to perform a complete search.
- <administratively transferred to [F03D 9/28](#)>
- D F03D 9/002
- {the apparatus being an electrical generator (F03D 9/11 takes precedence; details of electrical generators specifically adapted to wind turbines H02K 7/183)}
- WARNING
- Group F03D 9/002 is impacted by reclassification into group H02S 10/12. Groups F03D 9/002 and H02S 10/12 should be considered in order to perform a complete search.
- <administratively transferred to [F03D 9/25](#)>
- D F03D 9/003
- {~~connected to an electrical general supply grid~~; Arrangements therefor}
- WARNING
- Group F03D 9/003 is impacted by reclassification into group H02S 10/12. Groups F03D 9/003 and H02S 10/12 should be considered in order to perform a complete search.
- <administratively transferred to [F03D 9/255](#)>
- D F03D 9/005
- • {the wind motor being part of a wind farm}
- WARNING
- Group F03D 9/005 is impacted by reclassification into group H02S 10/12. Groups F03D 9/005 and H02S 10/12 should be considered in order to perform a complete search.
- <administratively transferred to [F03D 9/257](#)>
- D F03D 9/006
- {Adaptations for producing heat, e.g. in heat pump systems}
- WARNING
- Group F03D 9/006 is impacted by reclassification into group H02S 10/12. Groups F03D 9/006 and H02S 10/12 should be considered in order to perform a complete search.
- <administratively transferred to [F03D 9/22](#)>

- M F03D 9/10
- Combinations of wind motors with apparatus storing energy
- WARNING  
 Group [F03D 9/10](#) is impacted by reclassification into groups ~~F03D 9/11,~~  
[F03D 9/12](#), ~~F03D 9/13, F03D 9/14, F03D 9/16, F03D 9/17, F03D 9/18,~~  
[F03D 9/19](#) and [H02S 10/12](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- U F03D 9/20
- Wind motors characterised by the driven apparatus ([F03D 9/10](#) takes precedence)
- WARNING  
 Group [F03D 9/20](#) is incomplete pending reclassification of documents from group [F03D 9/00](#).  
 Groups [F03D 9/00](#) and [F03D 9/20](#) should be considered in order to perform a complete search.
- C F03D 9/22
- the apparatus producing heat
- WARNING  
~~Group F03D 9/22 is incomplete pending reclassification of documents from group F03D 9/00.~~  
~~Groups F03D 9/00 and F03D 9/22 should be considered in order to perform a complete search.~~  
 Group [F03D 9/22](#) is impacted by reclassification into group [H02S 10/12](#).  
 Groups [F03D 9/22](#) and [H02S 10/12](#) should be considered in order to perform complete search.
- C F03D 9/25
- the apparatus being an electrical generator ([F03D 9/22](#) takes precedence)
- WARNING  
~~Group F03D 9/25 is incomplete pending reclassification of documents from group F03D 9/00.~~  
~~Groups F03D 9/00 and F03D 9/25 should be considered in order to perform a complete search.~~  
 Group [F03D 9/25](#) is impacted by reclassification into group [H02S 10/12](#).  
 Groups [F03D 9/25](#) and [H02S 10/12](#) should be considered in order to perform complete search.
- Q F03D 9/255
- {connected to an electrical general supply grid; Arrangements therefor}
- WARNING  
 Group [F03D 9/255](#) is impacted by reclassification into group [H02S 10/12](#) search.  
 Groups [F03D 9/255](#) and [H02S 10/12](#) should be considered in order to perform a complete search.
- Q F03D 9/257
- {the wind motor being part of a wind farm}
- WARNING  
 Group [F03D 9/257](#) is impacted by reclassification into group [H02S 10/12](#).  
 Groups [F03D 9/257](#) and [H02S 10/12](#) should be considered in order to perform a complete search.
- C F03D 9/28
- the apparatus being a pump or a compressor
- WARNING  
~~Group F03D 9/28 is incomplete pending reclassification of documents from group F03D 9/00.~~

~~Groups F03D 9/00 and F03D 9/28 should be considered in order to perform a complete search.~~

*Group F03D 9/28 is impacted by reclassification into group H02S 10/12.  
Groups F03D 9/28 and H02S 10/12 should be considered in order to perform a complete search.*

**U F03D 13/00**

**Assembly, mounting or commissioning of wind motors; Arrangements specially adapted for transporting wind motor components**

WARNING

Group [F03D 13/00](#) is incomplete pending reclassification of documents from group [F03D 80/00](#).

Groups [F03D 80/00](#) and [F03D 13/00](#) should be considered in order to perform a complete search.

**E F03D 13/10**

- Assembly of wind motors; Arrangements for erecting wind motors

WARNING

~~Group F03D 13/10 is incomplete pending reclassification of documents from group F03D 80/00.~~

~~Groups F03D 80/00 and F03D 13/10 should be considered in order to perform a complete search.~~

**M F03D 13/20**

- Arrangements for mounting or supporting wind motors; Masts or towers for wind motors

WARNING

Group [F03D 13/20](#) is impacted by reclassification into ~~groups~~ *group [F03D 13/22](#) and [F03D 13/25](#)*.

*Groups [F03D 13/20](#) and [F03D 13/25](#)*

~~All groups listed in this Warning~~ should be considered in order to perform a complete search.

**M F03D 13/22**

- {Foundations specially adapted for wind motors}

WARNING

~~Group F03D 13/22 is incomplete pending reclassification of documents from group F03D 13/20.~~

~~Groups F03D 13/20 and F03D 13/22 should be considered in order to perform a complete search.~~

**E F03D 13/30**

- Commissioning, e.g. inspection, testing or final adjustment before releasing for production

WARNING

~~Group F03D 13/30 is incomplete pending reclassification of documents from group F03D 80/00.~~

~~Groups F03D 80/00 and F03D 13/30 should be considered in order to perform a complete search.~~

**E F03D 13/35**

- Balancing static or dynamic imbalances

WARNING

~~Group F03D 13/35 is incomplete pending reclassification of documents from group F03D 80/00.~~

~~Groups F03D 80/00 and F03D 13/35 should be considered in order to perform a complete search.~~



E	F03D 13/40	<ul style="list-style-type: none"> <li>Arrangements or methods specially adapted for transporting wind motor components</li> </ul> <p><b>WARNING</b> Group F03D 13/40 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 13/40 should be considered in order to perform a complete search.</p>
M	F03D 15/00	<p><b>Transmission of mechanical power</b></p> <p><b>WARNING</b> Group F03D 15/00 is impacted by reclassification into groups F03D 15/10, F03D 15/15 and F03D 15/20. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	F03D 15/10	<ul style="list-style-type: none"> <li>using gearing not limited to rotary motion, e.g. with oscillating or reciprocating members</li> </ul> <p><b>WARNING</b> Group F03D 15/10 is incomplete pending reclassification of documents from group F03D 15/00. Groups F03D 15/00 and F03D 15/10 should be considered in order to perform a complete search.</p>
M	F03D 15/15	<ul style="list-style-type: none"> <li>{Changing or adjusting stroke}</li> </ul> <p><b>WARNING</b> Group F03D 15/15 is incomplete pending reclassification of documents from group F03D 15/00. Groups F03D 15/00 and F03D 15/15 should be considered in order to perform a complete search.</p>
M	F03D 15/20	<ul style="list-style-type: none"> <li>Gearless transmission, i.e. direct-drive</li> </ul> <p><b>WARNING</b> Group F03D 15/20 is incomplete pending reclassification of documents from group F03D 15/00. Groups F03D 15/00 and F03D 15/20 should be considered in order to perform a complete search.</p>
M	F03D 80/00	<p><b>Details, components or accessories not provided for in groups <a href="#">F03D 1/00</a> - <a href="#">F03D 17/00</a></b></p> <p><b>WARNING</b> Group <a href="#">F03D 80/00</a> is impacted by reclassification into groups <a href="#">F03D 13/00</a>, <a href="#">F03D 13/10</a>, <a href="#">F03D 13/30</a>, <a href="#">F03D 13/35</a>, <a href="#">F03D 13/40</a>, <a href="#">F03D 17/00</a>, <a href="#">F03D 80/10</a>, <a href="#">F03D 80/20</a>, <a href="#">F03D 80/30</a>, <a href="#">F03D 80/40</a>, <a href="#">F03D 80/50</a>, <a href="#">F03D 80/55</a>, <a href="#">F03D 80/60</a>, <a href="#">F03D 80/70</a>, <a href="#">F03D 80/80</a>, <a href="#">F03D 80/82</a>, <a href="#">F03D 80/85</a> and <a href="#">F03D 80/88</a>. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	F03D 80/10	<ul style="list-style-type: none"> <li>Arrangements for warning air traffic</li> </ul> <p><b>WARNING</b> Group F03D 80/10 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/10 should be considered in order to perform a complete search.</p>

M	F03D 80/20	<ul style="list-style-type: none"> <li>• Arrangements for avoiding shadow flicker</li> </ul> <p><u>WARNING</u> Group F03D 80/20 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/20 should be considered in order to perform a complete search.</p>
M	F03D 80/30	<ul style="list-style-type: none"> <li>• Lightning protection</li> </ul> <p><u>WARNING</u> Group F03D 80/30 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/30 should be considered in order to perform a complete search.</p>
M	F03D 80/40	<ul style="list-style-type: none"> <li>• Ice detection; De-icing means</li> </ul> <p><u>WARNING</u> Group F03D 80/40 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/40 should be considered in order to perform a complete search.</p>
C	F03D 80/50	<ul style="list-style-type: none"> <li>• Maintenance or repair</li> </ul> <p><u>WARNING</u> Group F03D 80/50 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/50 should be considered in order to perform a complete search.</p> <p><i>Group F03D 80/50 is impacted by reclassification into group F03D 80/55. Groups F03D 80/50 and F03D 80/55 should be considered in order to perform a complete search.</i></p>
E	F03D 80/55	<ul style="list-style-type: none"> <li>• • Cleaning (<a href="#">F03D 80/40</a> takes precedence)</li> </ul> <p><u>WARNING</u> Group <a href="#">F03D 80/55</a> is incomplete pending reclassification of documents from group <del>F03D 80/00</del> <a href="#">F03D 80/50</a>. Groups <del>F03D 80/00</del> <a href="#">F03D 80/50</a> and <a href="#">F03D 80/55</a> should be considered in order to perform a complete search.</p>
M	F03D 80/70	<ul style="list-style-type: none"> <li>• Bearing or lubricating arrangements</li> </ul> <p><u>WARNING</u> Group F03D 80/70 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/70 should be considered in order to perform a complete search.</p>
M	F03D 80/80	<ul style="list-style-type: none"> <li>• Arrangement of components within nacelles or towers</li> </ul> <p><u>WARNING</u> Group F03D 80/80 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 80/80 should be considered in order to perform a complete search.</p>

- M F03D 80/82      • • {of electrical components}

**WARNING**

Group F03D 80/82 is incomplete pending reclassification of documents from group F03D 80/00.  
Groups F03D 80/00 and F03D 80/82 should be considered in order to perform a complete search.

- M F03D 80/85      • • • {Cabling}

**WARNING**

Group F03D 80/85 is incomplete pending reclassification of documents from group F03D 80/00.  
Groups F03D 80/00 and F03D 80/85 should be considered in order to perform a complete search.

- M F03D 80/88      • • {of mechanical components}

**WARNING**

Group F03D 80/88 is incomplete pending reclassification of documents from group F03D 80/00.  
Groups F03D 80/00 and F03D 80/88 should be considered in order to perform a complete search.

**Project: MP0319 (F04C)**

- U F04C 14/00      **Control of, monitoring of, or safety arrangements for, machines, pumps or pumping installations (of pumps or pumping installations specially adapted for elastic fluids F04C 28/00)**

- M F04C 14/24      • characterised by using valves **regulatingcontrolling** pressure or flow rate, e.g. discharge valves; {or unloading valves}(F04C 14/10 takes precedence)

- U F04C 28/00      **Control of, monitoring of, or safety arrangements for, pumps or pumping installations specially adapted for elastic fluids**

- M F04C 28/24      • characterised by using valves **regulatingcontrolling** pressure or flow rate, e.g. discharge valves {or unloading valves}(F04C 28/10 takes precedence)

**Project: RP0377 (F05B)**

- U F05B 2260/00      **Function**

- F05B 2260/02      • Transport, e.g. specific adaptations or devices for conveyance (transport of wind turbines or equipments therefore **F03D 1/005F03D 13/40**)

**Project: MP0319 (F15B)**

- U F15B 11/00      **Servomotor systems without provision for follow-up action; {Circuits therefor}(F15B 3/00 takes precedence)**

- U F15B 11/02      • Systems essentially incorporating special features for controlling the speed or actuating force of an output member

- U F15B 11/04      • • for controlling the speed (F15B 11/024 takes precedence)

- M F15B 11/042      • • • by **regulating** means in **the** feed line; {, i.e. "meter in"}(F15B 11/046, F15B 11/05 take precedence)

- M F15B 11/044      • • • by **regulating** means in **the** return line; {, i.e. "meter out"}(F15B 11/046, F15B 11/05 take precedence)

**Project: MP0319 (F16F)**

- U F16F 1/00      **Springs (working with fluid F16F 5/00, F16F 9/00)**

- U F16F 1/36 · made of rubber or other material having high internal friction, {e.g. thermoplastic elastomers (spring units consisting of several springs [F16F 3/08](#))}
- M F16F 1/379 · · characterised by arrangements for **regulatingcontrolling** the spring temperature, e.g. by cooling

**Project: MP0319 (F16H)**

- U F16H 61/00 **Control functions within {control units of} change-speed- or reversing-gearings for conveying rotary motion; {Control of exclusively fluid gearing, friction gearing, gearings with endless flexible members or other particular types of gearing}**
- M F16H 61/10 · **RegulatingControlling** shift hysteresis

**Project: MP0319 (F16N)**

- U F16N 7/00 **Arrangements for supplying oil or unspecified lubricant from a stationary reservoir or the equivalent in or on the machine or member to be lubricated (axle-box lubrication for railway rolling-stock [B61F 17/00](#))**
- U F16N 7/02 · with gravity feed or drip lubrication
- M F16N 7/10 · · incorporating manually-operated **regulatingcontrol** means, e.g. spindles

**Project: RP0416 (F21L)**

- U F21L **LIGHTING DEVICES OR SYSTEMS THEREOF, BEING PORTABLE OR SPECIALLY ADAPTED FOR TRANSPORTATION**

**NOTES**

1. This subclass covers devices or systems designed or specially adapted to be carried, e.g. by hand, or otherwise transported from place to place, e.g. on wheeled supports, in order to provide illumination as and where required.
2. This subclass does not cover devices or systems intended for fixed installation, e.g. vehicle lighting, or for use essentially at a permanent location, which are covered by subclass [F21S](#).
3. Non-electric lighting devices are classified in groups [F21L 17/00-F21L 26/00](#) only if a special adaptation related to the use of a non-electric light source is of interest.

- F **F21L 2001/00**  
**(Frozen)** {Portable electric lighting devices employing point-like light sources; Portable lighting devices employing light sources of unspecified shape, e.g. inspection lamps for mains connection}

**WARNING**

*Group [F21L 2001/00](#) is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups [F21L 2/00](#), [F21L 4/00](#) - [F21L 4/085](#). All groups listed in this Warning should be considered in order to perform a complete search.*

- M F21L 2/00 **Systems of lighting devices (systems employing both electric and non-electric light sources or exchangeable light sources [F21L 27/00](#))**

**WARNING**

*Group [F21L 2/00](#) is incomplete pending reclassification of documents from groups [F21L 15/00](#) - [F21L 15/14](#), [F21L 2001/00](#), [F21L 2003/00](#), [F21L 2005/00](#) and [F21L 25/00](#). All groups listed in this Warning should be considered in order to perform a complete search.*

- F F21L 2003/00 (Frozen)** {Portable electric lighting devices employing linear light sources}
- WARNING  
*Group F21L 2003/00 is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups F21L 2/00, F21L 4/00 - F21L 4/085.*  
*All groups listed in this Warning should be considered in order to perform a complete search.*
- M F21L 4/00** **Electric lighting devices with self-contained electric batteries or cells**
- WARNING  
*Groups F21L 4/00 - F21L 4/085 are incomplete pending reclassification of documents from groups F21L 15/00 - F21L 15/14, F21L 2001/00, F21L 2003/00, F21L 2005/00 and F21L 25/00.*  
*All groups listed in this Warning should be considered in order to perform a complete search.*
- F F21L 2005/00 (Frozen)** {Portable electric lighting devices employing light sources of shapes not covered by group [F21L 2001/00](#) or [F21L 2003/00](#)}
- WARNING  
*Group F21L 2005/00 is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups F21L 2/00, F21L 4/00 - F21L 4/085.*  
*All groups listed in this Warning should be considered in order to perform a complete search.*
- D F21L 7/00** ~~{Torches or pocket-lamps with built-in batteries (F21L 4/00 takes precedence)}~~  
 <administratively transferred to [F21L 2/00](#)>
- D F21L 11/00** ~~{Portable lighting devices with built-in batteries or accumulators, not covered by group F21L 4/00 or F21L 7/00, e.g. miners' hand-lamps}~~  
 <administratively transferred to [F21L 2/00](#)>
- F F21L 15/00 (Frozen)** {Details of kinds solely applicable to the devices covered by groups [F21L 2/00](#) - [F21L 14/00](#)}
- WARNING  
*Group F21L 15/00 is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups F21L 2/00, F21L 4/00-F21L 4/085.*  
*Groups F21L 15/00, F21L 2/00, and F21L 4/00 - F21L 4/085 should be considered in order to perform a complete search.*
- F F21L 15/02 (Frozen)** • {concerned with light emission or distribution}
- WARNING  
*Group F21L 15/02 is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups F21L 2/00, F21L 4/00-F21L 4/085, F21V 3/00-F21V 3/049, F21V 5/00-F21V 5/08, F21V 7/00-F21V 7/22, F21V 13/00-F21V 13/14, F21V 14/025, F21V 14/045, and F21V 14/065.*  
*All groups listed in this Warning should be considered in order to perform a complete search.*

F F21L 15/04 (Frozen)	<ul style="list-style-type: none"> <li>• {Arrangements of coloured filters or screens}</li> </ul> <p><b>WARNING</b>  Group <i>F21L 15/04</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00-F21L 4/085</i>, <i>F21V 9/08-F21V 9/12</i>, <i>F21V 11/00-F21V 11/186</i>, and <i>F21V 14/085</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
F F21L 15/06 (Frozen)	<ul style="list-style-type: none"> <li>• {concerned with the fitting}</li> </ul> <p><b>WARNING</b>  Group <i>F21L 15/06</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00-F21L 4/085</i>, <i>F21V 19/00-F21V 19/04</i>, and <i>F21V 23/00-F21V 23/06</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
F F21L 15/08 (Frozen)	<ul style="list-style-type: none"> <li>• {Supporting and suspending elements}</li> </ul> <p><b>WARNING</b>  Groups <i>F21L 15/08</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00-F21L 4/085</i>, <i>F21V 21/08-F21V 21/0965</i>, and <i>F21V 21/14-F21V 21/32</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
F F21L 15/10 (Frozen)	<ul style="list-style-type: none"> <li>• {without arrangements for adjustment}</li> </ul> <p><b>WARNING</b>  Group <i>F21L 15/10</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00-F21L 4/085</i>, and <i>F21V 21/08-F21V 21/0965</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
F F21L 15/14 (Frozen)	<ul style="list-style-type: none"> <li>• {Clips; Clamps; Head fittings (for medical purposes <a href="#">A61B 1/06</a>)}</li> </ul> <p><b>WARNING</b>  Group <i>F21L 15/14</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00-F21L 4/085</i>, and <i>F21V 21/08-F21V 21/0965</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
M F21L 19/00	Lanterns, e.g. hurricane lamps or candle lamps <del>(candle holders F21V 35/00)</del>
F F21L 25/00 (Frozen)	<p>{Details of kinds solely applicable to the devices covered by groups <a href="#">F21L 17/00</a> - <a href="#">F21L 23/00</a>}</p> <p><b>WARNING</b>  Group <i>F21L 25/00</i> is no longer used for the classification of documents as of February 1, 2017. The content of this group is being reclassified into groups <i>F21L 2/00</i>, <i>F21L 4/00 - F21L 4/085</i>, <i>F21V 35/00 - F21V 35/006</i>, and <i>F21V 37/00 - F21V 37/02</i>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>



**Project: MP0340 (F21S)**

**M F21S NON-PORTABLE LIGHTING DEVICES ~~OR SYSTEMS THEREOF~~ (burners ~~F23D~~); ~~SYSTEMS THEREOF~~**

**NOTES**

1. This subclass covers devices or systems intended for fixed installation, e.g. vehicle lighting, or for use at a permanent location, e.g. free-standing floor- or table-lamps.
2. This subclass does not cover devices or systems specially adapted for transportation, which are covered by subclass [F21L](#).
3. Non-electric lighting devices or systems are classified in groups [F21S 11/00](#) - [F21S 15/00](#) only if a special adaptation related to the use of a non-electric light source is of interest.

**M F21S 13/00 Non-electric lighting devices or systems employing a point-like light source (~~candle holders F21V 35/00~~); Non-electric lighting devices or systems employing a light source of unspecified shape**

**Project: RP0416, MP0341 (F21V)**

**M F21V ~~FUNCTIONAL FEATURES OR DETAILS OF LIGHTING DEVICES, OF GENERAL APPLICATION OR SYSTEMS THEREOF; STRUCTURAL COMBINATIONS OF LIGHTING DEVICES WITH OTHER ARTICLES, NOT OTHERWISE PROVIDED FOR~~**

**NOTES**

1. Groups [F21V 1/00-F21V 14/00](#) cover aspects related to light emission or distribution. Groups [F21V 15/00-F21V 31/00](#) cover aspects not related to light emission or distribution.
2. Details of non-electric lighting devices or systems are classified in groups [F21V 35/00-F21V 37/00](#) only if a special adaptation related to the use of a non-electric light source is of interest.
3. In this subclass, it is desirable to add the indexing codes of subclasses [F21W](#) and [F21Y](#)

**WARNING**

The following IPC groups are not used in the CPC ~~system~~*scheme*. Subject matter covered by these groups is classified in the following CPC groups:  
[F21V 8/00](#) covered by [G02B 6/00](#)

**Project: RP0416 (F21V)**

**M F21V 3/00 Globes; Bowls; Cover glasses (with refracting properties [F21V 5/00](#); with reflecting properties [F21V 7/00](#); characterised by cooling arrangements [F21V 29/506](#))**

**WARNING**

*Groups [F21V 3/00](#) - [F21V 3/049](#) are incomplete pending reclassification of documents from group [F21L 15/02](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.*

**M F21V 5/00 Refractors for light sources (characterised by cooling arrangements [F21V 29/504](#))**

**WARNING**

*Groups [F21V 5/00](#) - [F21V 5/08](#) are incomplete pending reclassification of documents from group [F21L 15/02](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

**M F21V 7/00**

**Reflectors for light sources (characterised by cooling arrangements [F21V 29/505](#))**

**WARNING**

*Groups [F21V 7/00](#) - [F21V 7/22](#) are incomplete pending reclassification of documents from group [F21L 15/02](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

**U F21V 9/00**

**Light filters (coloured shades [F21V 1/00](#); characterised by cooling arrangements [F21V 29/502](#)); Selection of luminescent materials for light screens**

**M F21V 9/08**

• for producing coloured light, e.g. monochromatic; for reducing intensity of light ([F21V 9/16](#) takes precedence)

**WARNING**

*Groups [F21V 9/08](#) - [F21V 9/12](#) are incomplete pending reclassification of documents from group [F21L 15/04](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

**M F21V 11/00**

**Screens not covered by groups [F21V 1/00](#), [F21V 3/00](#), [F21V 7/00](#) or [F21V 9/00](#) (characterised by cooling arrangements [F21V 29/502](#))**

**WARNING**

*Groups [F21V 11/00](#) - [F21V 11/186](#) are incomplete pending reclassification of documents from group [F21L 15/04](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

**M F21V 13/00**

**Producing particular characteristics or distribution of the light emitted by means of a combination of elements specified in two or more of main groups [F21V 1/00](#) [F21V 11/00](#) (by means of a combination of two or more elements covered by a single one of main groups [F21V 1/00](#) [F21V 11/00](#), see the relevant group; changing the characteristics or distribution of the light emitted by adjustment of parts [F21V 14/00](#))**

**WARNING**

*Groups [F21V 13/00](#) - [F21V 13/14](#) are incomplete pending reclassification of documents from group [F21L 15/02](#).*

*All groups listed in this Warning should be considered in order to perform a complete search.*

**U F21V 14/00**

**Changing the characteristics or distribution of the light emitted by adjustment of parts {or by interposition of elements with electrically controlled variable light transmissivity}{reflectors with provision for adjusting the curvature [F21V 7/16](#); light filters with provision for variation of colour or intensity [F21V 9/10](#); screens using adjustable parallel laminae or strips, e.g. of Venetian-blind type, [F21V 11/04](#); screens using iris-type diaphragms [F21V 11/10](#); screens using movable sheets without apertures, e.g. flaps or slides, [F21V 11/18](#); adjustable mountings for lighting devices [F21V 21/14](#)}**

**U F21V 14/02**

• by movement of light sources {(in vehicle head lamps [F21S 48/1742](#))}

M	F21V 14/025	<ul style="list-style-type: none"> <li>• {in portable lighting devices}</li> </ul> <p><b>WARNING</b>  Group <a href="#">F21V 14/025</a> is incomplete pending reclassification of documents from group <a href="#">F21L 15/02</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
U	F21V 14/04	<ul style="list-style-type: none"> <li>• by movement of reflectors {(in vehicle head lamps <a href="#">F21S 48/1757</a>)}</li> </ul>
M	F21V 14/045	<ul style="list-style-type: none"> <li>• {in portable lighting devices}</li> </ul> <p><b>WARNING</b>  Group <a href="#">F21V 14/045</a> is incomplete pending reclassification of documents from group <a href="#">F21L 15/02</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
U	F21V 14/06	<ul style="list-style-type: none"> <li>• by movement of refractors {(in vehicle head lamps <a href="#">F21S 48/1721</a>)}</li> </ul>
M	F21V 14/065	<ul style="list-style-type: none"> <li>• {in portable lighting devices}</li> </ul> <p><b>WARNING</b>  Group <a href="#">F21V 14/065</a> is incomplete pending reclassification of documents from group <a href="#">F21L 15/02</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
U	F21V 14/08	<ul style="list-style-type: none"> <li>• by movement of the screens {or filters}</li> </ul>
M	F21V 14/085	<ul style="list-style-type: none"> <li>• {in portable lighting devices}</li> </ul> <p><b>WARNING</b>  Group <a href="#">F21V 14/085</a> is incomplete pending reclassification of documents from group <a href="#">F21L 15/04</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	F21V 19/00	<p><b>Fastening of light sources or lamp holders (fastening electric light source solely by the coupling device <a href="#">H01R 33/00</a>; {special means for attaching candle to candle holder <a href="#">F21V 35/003</a>})</b></p> <p><b>WARNING</b>  Groups <a href="#">F21V 19/00</a> - <a href="#">F21V 19/04</a> are incomplete pending reclassification of documents from group <a href="#">F21L 15/06</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>
U	F21V 21/00	<p><b>Supporting, suspending, or attaching arrangements for lighting devices (<a href="#">F21V 17/00</a>, <a href="#">F21V 19/00</a> take precedence; arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general <a href="#">B60Q</a>, stands for supporting apparatus or articles in general <a href="#">F16M 11/00</a>); Hand grips</b></p>
M	F21V 21/08	<ul style="list-style-type: none"> <li>• Devices for easy attachment to any desired place, e.g. clip, clamp, magnet</li> </ul> <p><b>WARNING</b>  Groups <a href="#">F21V 21/08</a> - <a href="#">F21V 21/0965</a> are incomplete pending reclassification of documents from groups <a href="#">F21L 15/08</a>, <a href="#">F21L 15/10</a> and <a href="#">F21L 15/14</a>.  All groups listed in this Warning should be considered in order to perform a complete search.</p>

- M F21V 21/14      • Adjustable mountings

**WARNING**

*Groups F21V 21/14 - F21V 21/32 are incomplete pending reclassification of documents from group F21L 15/08.  
All groups listed in this Warning should be considered in order to perform a complete search.*

- M F21V 23/00      **Arrangement of electric circuit elements in or on lighting devices  
{(characterised by cooling arrangements F21V 29/508)}**

**WARNING**

*Groups F21V 23/00 - F21V 23/06 are incomplete pending reclassification of documents from group F21L 15/06.  
All groups listed in this Warning should be considered in order to perform a complete search.*

- M F21V 35/00      **Candle holders**

**WARNING**

*Groups F21V 35/00 - F21V 35/006 are incomplete pending reclassification of documents from group F21L 25/00.  
All groups listed in this Warning should be considered in order to perform a complete search.*

- M F21V 37/00      **Details of lighting devices employing combustion as light source, not otherwise provided for; Night lamps; Votive lamps**

**WARNING**

*Groups F21V 37/00 - F21V 37/02 are incomplete pending reclassification of documents from group F21L 25/00.  
All groups listed in this Warning should be considered in order to perform a complete search.*

**Project: MP0319 (F23H)**

- U F23H 11/00      **Travelling-grates**

- M F23H 11/10      • with special provision for supply of air from below and for **regulatingcontrolling** air supply

**Project: MP0319 (F24B)**

- U F24B 1/00      **Stoves or ranges**

- U F24B 1/18      • Stoves with open fires, e.g. fireplaces

- M F24B 1/185      • • with air-handling means, heat exchange means, or additional provisions for convection heating (F24B 1/183 takes precedence; component parts or accessories having air-handling means, heat exchange means, or additional provisions for convection heating F24B 1/191); **RegulatingControlling** combustion; ~~Controls therefor~~

**Project: MP0319 (F26B)**

- U F26B 13/00      **Machines and apparatus for drying fabrics, fibres, yarns, or other materials in long lengths, with progressive movement**

- M F26B 13/10      • Arrangements for feeding, heating, or supporting materials; **RegulatingControlling** movement, tension; or position of materials (heating processes F26B 3/00)

- M F26B 13/12      • • **RegulatingControlling** movement, tension; or position of **materials** ~~material~~

**Project: MP0319 (F41A)**

- U F41A 19/00 Firing or trigger mechanisms; Cocking mechanisms**
- U F41A 19/03 • Shot-velocity control ([F41A 3/78](#), [F41A 5/28](#), [F41A 19/05](#), [F41A 19/66](#) take precedence)
- M F41A 19/04 • • by **regulatingcontrolling** the time of release of the firing pin or hammer

**Project: MP0319 (F41B)**

- U F41B 11/00 Compressed-gas guns, e.g. air guns; Steam guns**
- U F41B 11/70 • Details not provided for in [F41B 11/50](#) or [F41B 11/60](#)
- U F41B 11/72 • • Valves; Arrangement of valves
- M F41B 11/721 • • • for **regulatingcontrolling** gas pressure for both firing the projectile and for loading or feeding
- M F41B 11/722 • • • for **regulatingcontrolling** gas pressure for loading or feeding only
- M F41B 11/723 • • • for **regulatingcontrolling** gas pressure for firing the projectile only

**Project: RP0403 (G02B)**

- U G02B 6/00 Light guides**
- G02B 6/0001 • {specially adapted for lighting devices or systems (lighting or signalling on vehicles using light guides [B60Q 1/00](#); lighting devices for vehicle **interior usingdashboards** [B60Q 3/10](#) light guides [B60Q 3/002](#); lighting devices mounted on the vehicle rear part using light guides [F21S 48/2225](#); lighting devices for vehicle dashboards [B60Q 3/04](#); lighting devices for vehicle interior using light guides [B60Q 3/62](#); lighting devices mounted on the vehicle rear part using light guides [F21S 48/2225](#); measuring arrangements having light conducting pointers [G01D 13/265](#); illumination of liquid crystal displays [G02F 1/1336](#); illuminated signs [G09F 13/00](#))}

**Project: MP0322 (G06F)**

- M G06F 21/00 Security arrangements for protecting computers, components thereof, programs or data against unauthorised activity {(address-based protection against unauthorised use of memory [G06F 12/14](#); record carriers for use with machines and with at least a part designed to carry digital markings [G06K 19/00](#); preventing unauthorised reproduction or copying of **diskdisc**-type recordable media [G11B 20/00](#); secret or secure communication [H04L 9/00](#); digital watermarking on images [H04N 1/32](#); protection in video systems or pay television [H04N 7/16](#))}**
- U G06F 21/70 • Protecting specific internal or peripheral components, in which the protection of a component leads to protection of the entire computer
- U G06F 21/78 • • to assure secure storage of data (address-based protection against unauthorised use of memory [G06F 12/14](#); record carriers for use with machines and with at least a part designed to carry digital markings [G06K 19/00](#))
- M G06F 21/80 • • • in storage media based on magnetic or optical technology, e.g. disks with sectors (preventing unauthorised reproduction or copying of **diskdisc**-type recordable media [G11B 20/00](#))

**Project: MP0322 (G11B)**

- U G11B 5/00**      **Recording by magnetisation or demagnetisation of a record carrier; Reproducing by magnetic means; Record carriers therefor ([G11B 11/00](#) {and [G11B 13/00](#)} take precedence)**
- NOTE  
Subgroups [G11B 5/02](#) - [G11B 5/86](#) take precedence over subgroups [G11B 5/004](#) - [G11B 5/016](#)
- M G11B 5/012**      • Recording on, or reproducing or erasing from, magnetic ~~dises~~~~disks~~ ([G11B 17/00](#), [G11B 19/00](#) take precedence)
- U G11B 5/48**      • Disposition or mounting of heads {or head supports} relative to record carriers {(mounting of head within housing [G11B 5/105](#)); arrangements of heads, e.g. for scanning the record carrier to increase the relative speed (driving of both record carriers and head [G11B 15/18](#); guiding record carriers [G11B 15/60](#); head selecting circuits [G11B 15/12](#))}
- U G11B 5/54**      • • with provision for moving the head into or out of its operative position or across tracks ([G11B 5/58](#) takes precedence)
- U G11B 5/55**      • • • Track change, selection or acquisition by displacement of the head
- M G11B 5/5521**      • • • • {across ~~dises~~~~disk~~ tracks (spiral track following [G11B 5/596](#))}
- NOTE  
For groups [G11B 5/5526](#) - [G11B 5/5582](#), see provisionally [G11B 5/5521](#) and [G11B 5/596](#)
- U G11B 5/74**      • Record carriers characterised by the form, e.g. sheet shaped to wrap around a drum
- M G11B 5/82**      • • ~~Dise~~~~Disk~~ carriers
- U G11B 7/00**      **Recording or reproducing by optical means, e.g. recording using a thermal beam of optical radiation {by modifying optical properties or the physical structure}, reproducing using an optical beam at lower power {by sensing optical properties}; Record carriers therefor; ([G11B 11/00](#), [G11B 13/00](#) take precedence)**
- U G11B 7/24**      • Record carriers characterised by shape, structure or physical properties, or by the selection of the material (characterised by the arrangement of information on the carrier [G11B 7/007](#))
- M G11B 7/24003**      • • Shapes of record carriers other than ~~disk~~~~disc~~ shape
- M G11B 7/24015**      • • Air-sandwiched ~~disks~~~~discs~~
- NOTE  
When classifying in this group, classification is also made in group [G11B 7/2403](#) if the subject matter disclosed in the context of an air-sandwiched ~~disk~~~~disc~~ is of more general application
- M G11B 7/24018**      • • Laminated ~~disks~~~~discs~~ ([G11B 7/24015](#) takes precedence)
- NOTE  
When classifying in this group, classification is also made in group [G11B 7/2403](#) if the subject matter disclosed in the context of a laminated ~~disk~~~~disc~~ is of more general application
- U G11B 7/2403**      • • Layers; Shape, structure or physical properties thereof
- M G11B 7/24056**      • • • Light transmission layers lying on the light entrance side and being thinner than the substrate, e.g. specially adapted for Blu-ray(R)-~~disks~~~~discs~~
- U G11B 7/2407**      • • Tracks or pits; Shape, structure or physical properties thereof (layout of tracks or pits used as the identification information [G11B 7/007](#))



- U G11B 7/24073      • • • Tracks
- M G11B 7/24076      • • • • Cross sectional shape in the radial direction of a ~~disk~~*disc*, e.g. asymmetrical cross sectional shape
- M G11B 7/24097      • • Structures for detection, control, recording operation or replay operation; Special shapes or structures for centering or eccentricity prevention (within laminated ~~disks~~*discs* [G11B 7/24021](#)); Arrangements for testing, inspecting or evaluating; Containers, cartridges or cassettes

**NOTE**

When classifying in this group, classification is also made in group [G11B 23/00](#) if the subject matter disclosed in the context of an optical record carrier is of more general application

- U G11B 23/00**      **Record carriers not specific to the method of recording or reproducing; Accessories, e.g. containers, specially adapted for co-operation with the recording or reproducing apparatus {Intermediate mediums; Apparatus or processes specially adapted for their manufacture (processes involving a single technical art and for which provision exists elsewhere, see the relevant class, e.g. [B29](#), [B41M](#), [B05D](#), [C08L](#), [F16N](#))}**

**NOTE**

In group [G11B 23/00](#), recording or reproducing apparatus does not include the record carriers.

- U G11B 23/50      • Reconditioning of record carriers; Cleaning of record carriers; {Carrying-off electrostatic charges}{[G11B 3/58](#) takes precedence; {carrying off electrostatic charges in general [H05F 3/00](#))}
- M G11B 23/505      • • {of ~~disc~~*disk* carriers}
- U G11B 25/00**      **Apparatus characterised by the shape of record carrier employed but not specific to the method of recording or reproducing (individual parts of apparatus [G11B 3/00](#) - [G11B 23/00](#), [G11B 33/00](#)), {e.g. dictating apparatus; Combinations of such apparatus}**
- U G11B 25/04      • using flat record carriers, e.g. disc, card
- M G11B 25/046      • • {using stationary discs, or cards provided with a circular recording area (~~automatic feed mechanism producing a transducing t traverse of the head across stationary disc tracks~~ [G11B 21/043](#); driving heads relatively to stationary record carriers for mechanical transducing [G11B 3/40](#); *automatic feed mechanism producing a transducing traverse of the head across stationary disk tracks* [G11B 21/043](#))}

**Project: RP0416 (H01F)**

- U H01F 7/00**      **Magnets (superconducting magnets [H01F 6/00](#); for separation of solid materials or fluids [B03C 1/00](#); for bench or like work-holders [B23B 31/28](#), [B23Q 3/00](#); work-holding devices [B25B 11/00](#); lifting magnets [B66C 1/00](#); {operating or controlling locks using permanent magnets [E05B 47/0038](#); devices for holding a wing, e.g. door or window, by magnetic or electromagnetic attraction [E05C 19/16](#); relieving load or bearings using magnetic means [F16C 39/06](#) } ; for electric meters [G01R](#); for relays [H01H](#); {for electric discharge tubes [H01J](#), e.g. [H01J 3/24](#), [H01J 23/10](#), [H01J 29/68](#) } ; for dynamo-electric machines [H02K](#))**

H01F 7/06

- Electromagnets; Actuators including electromagnets {(electric coils [H01F 5/00](#); devices for holding workpieces using electric force [B23Q 3/15](#); load-engaging elements for lifting articles electromagnetically [B66C 1/06](#); electromagnetic couplings [F16D 27/00](#); magnetic brakes [F16D 63/002](#); electromagnetically operated valves [F16K 11/24](#), [F16K 31/00](#); ~~magnetically locked mine lamps~~ [F21L 11/00](#); analysing materials by magnetic means [G01N 27/72](#), [G01N 27/80](#); electromagnets for winding mechanical clocks [G04C 1/02](#); electromagnetic relays [H01H 51/00](#); windings for salient poles of dynamo-electric machines [H02K 3/18](#); electromagnets for telegraphic communication [H04L](#); for arc lamps [H05B 31/28](#))}

**Project: RP0377 (H02K)****U H02K 7/00**

**Arrangements for handling mechanical energy structurally associated with dynamo-electric machines, e.g. structural association with mechanical driving motors or auxiliary dynamo-electric machines**

U H02K 7/18

- Structural association of electric generator with mechanical driving motor, e.g. turbine (if the driving-motor aspect predominates, see the relevant subclass of section [F](#), e.g. [F03B 13/00](#))

U H02K 7/1807

- • {Rotary generators ([H02K 7/006](#) takes precedence)}

U H02K 7/1823

- • • {structurally associated with turbines or similar engines}

H02K 7/183

- • • • {wherein the turbine is a wind turbine (adaptation of a wind turbine to an electric generator [F03D 9/002](#)[F03D 9/25](#))}

**Project: RP0377 (H02S)****U H02S 10/00**

**PV power plants; Combinations of PV energy systems with other systems for the generation of electric power**

WARNING

Groups [H02S 10/10](#) - [H02S 10/40](#) are incomplete pending reclassification of documents from group [H02S 10/00](#).

Until reclassification is complete, groups [H02S 10/00](#) should be considered in order to perform a complete search.

U H02S 10/10

- including a supplementary source of electric power, e.g. hybrid diesel-PV energy systems (combinations with gas-turbine plants [F02C 6/00](#))

M H02S 10/12

- • Hybrid wind-PV energy systems

WARNING

Group [H02S 10/12](#) is incomplete pending reclassification of documents from groups [F03D 9/00](#), [F03D 9/001](#), [F03D 9/002](#), [F03D 9/003](#), [F03D 9/005](#), [F03D 9/006](#), [F03D 9/007](#), [F03D 9/008](#), [F03D 9/10](#), [F03D 9/11](#), [F03D 9/13](#), [F03D 9/14](#), [F03D 9/16](#) ~~and~~, [F03D 9/17](#), [F03D 9/22](#), [F03D 9/25](#), [F03D 9/255](#), [F03D 9/257](#) and [F03D 9/28](#).

All groups listed in this Warning should be considered in order to perform a complete search.

**Project: RP0404 (H04B)****U H04B 7/00**

**Radio transmission systems, i.e. using radiation field ([H04B 10/00](#), [H04B 15/00](#) take precedence)**

M H04B 7/02

- Diversity systems ~~(for direction finding [G01S 3/72](#); aerial arrays or systems [H01Q](#); {reducing multipath interference in spread spectrum systems [H04B 1/7115](#); specially adapted for satellite systems [H04B 7/18534](#); for telegraphy or data transmission [H04L 1/02](#)})~~; *Multi-antenna systems, i.e. transmission or reception using multiple antennas*

- M H04B 7/022
- • ~~Site diversity~~; {Site diversity, e.g. macro ~~Macro~~-diversity (for co-located independent aerials H04B 7/04 using two or more spaced independent antennas H04B 7/04)}
- M H04B 7/024
- • • {Cooperative ~~Co-operative~~ use of antennas of several ~~nodes~~ sites, e.g. in coordinated ~~co-ordinated~~ multipoint or cooperative MIMO [Multiple Input Multiple Output] ~~co-operative multiple-input multiple-output [MIMO] systems~~}
- M H04B 7/026
- • • {Cooperative ~~Co-operative~~ diversity, e.g. using fixed or mobile stations as relays ~~(cooperative coding H04L 1/0077, relays per se in CoMP H04B 7/15592)~~}
- M H04B 7/04
- • using a plurality of ~~two or more~~ spaced independent ~~aerials~~ antennas
- M H04B 7/0404
- • • {the mobile station comprising multiple antennas ~~(, e.g. aspects of to provide uplink diversity)~~}
- M H04B 7/0408
- • • {using a plurality of ~~two or more~~ beams, ~~e.g.i.e.~~ beam diversity}
- M H04B 7/0413
- • • {Multiple input multiple output [MIMO] systems}
- WARNING  
Group H04B 7/0413 and subgroups are not complete pending reorganisation. See also H04W 52/42
- M H04B 7/0417
- • • • {Feedback systems}
- M H04B 7/0426
- • • • {Power distribution ~~aspects~~}
- M H04B 7/0452
- • • • {Multiple ~~Multi~~-user MIMO systems}
- M H04B 7/0456
- • • • {Selection of precoding ~~matrix~~ ~~matrices~~ or ~~codebook~~ ~~codebooks~~, e.g. using matrices for antenna weighting ~~(codebook-based design for spatial equalizers at the transmitter H04L 25/03898)~~}
- M H04B 7/0491
- • • {using a plurality of ~~two or more~~ sectors, ~~e.g.i.e.~~ sector diversity}
- M H04B 7/0495
- • • • {using overlapping sectors in the same base station to implement MIMO ~~for antennas~~}
- M H04B 7/06
- • • at ~~the~~ transmitting station, ~~e.g. time diversity~~
- M H04B 7/08
- • • at ~~the~~ receiving station, ~~e.g. space diversity~~
- M H04B 7/10
- • using a single aerial system characterised by its polarisation or directive properties, e.g. polarisation ~~Polarisation~~ diversity, ~~direction diversity~~; ~~Directional diversity~~
- M H04B 7/12
- • Frequency ~~diversity systems~~ ~~diversity~~
- M H04B 7/14
- Relay systems ~~(interrogator-responder radar systems G01S 13/74; {CATV [community antenna television] systems H04H 20/78; adapted for television H04N 7/20})~~
- M H04B 7/145
- • Passive relay systems ~~(construction of passive reflectors G01S 13/02)~~
- M H04B 7/24
- for communication between two or more posts (for selecting H04W; {wireless communication networks H04W})

## Project: N/A (H04N)

## H04N

PICTORIAL COMMUNICATION, e.g. TELEVISION (measuring, testing G01; systems for autographic writing, e.g. writing telegraphy, which involve following an outline {G08C 21/00}; information storage based on relative movement between record carrier and transducer G11B; coding, decoding or code conversion, in general H03M; broadcast distribution or the recording of use made thereof H04H)

NOTES

1. This subclass covers :

- {generation, recording or} transmission of pictures or their transient or permanent reproduction either locally or remotely {and the corresponding

electronic image capture and reproduction process employing image representative electric signals,} by methods or arrangements {involving at least one of} the following steps:

- a. the {electronic acquisition or} scanning of a picture {or scene} , i.e. resolving the whole picture-containing area into individual picture-elements and the derivation of picture-representative electric signals related thereto, simultaneously or in sequence {, e.g. by reading an electronic solid-state image sensor [SSIS] pickup device (e.g. CCD or CMOS image sensor) as electronic image sensor converting optical image information into said electrical signals;}
  - b. the reproduction of the whole picture-containing area {or scene} by the reproduction of individual picture-elements into which the picture is resolved by means of picture representative electric signals derived therefrom, simultaneously or in sequence by converting an electric image signal into light e.g. with an electronic spatial light modulator;
- { concerning cameras or projectors:
    - video cameras or TV cameras, e.g. in studios, CCTV cameras, surveillance cameras, camcorders; constructional or mechanical details related to such cameras even when not peculiar to the presence of an electronic image sensor [EIS] e.g. housings;
    - arrangements or methods for image capture using an EIS or image projection using an electronic spatial light modulator [ESLM], i.e.
      - i. sensor read-out;
      - ii. processing of electrical image signals from the EIS or provided to the ESLM for the generation of respective camera or projector control signals,
        - for controlling the EIS or its read-out for e.g. exposure, scene selection for auto focussing, or electronic image enhancement or processing of the image signals captured by the EIS, e.g. white balance, electronic motion blur correction, noise suppression [H04N 5/00](#),
        - for controlling the ESLM, e.g. control of the light source based on electronic image signal, light conditioning specially adapted for the ESLM, or
        - for controlling other camera functions, e.g. exposure, shaking by influencing optical parts of the camera (generation of control signals for focussing for optical elements [G02B 7/28](#); using such signals to control focus of particular apparatus, see the subclasses for the apparatus, e.g. [G03B](#), [G03F](#), [H04N](#));
  - electronic image data storage (data storage in general [G11B](#), [G11C](#));
  - in-camera image processing e.g. correction of lens distortion, defect pixel correction, noise suppression, removal of motion blur, improving of the dynamic range of the image, in-projector image processing, electronic image data manipulation, e.g. during display or projection (image processing per se [G06T](#));
  - electronic viewfinders e.g. control of image pickup devices based on information indicated by the electronic viewfinder displaying an image signal generated by the EIS ;
  - electrical or mechanical aspects of camera modules using electronic image sensors, as well as related constructional details as in webcams or mobile phones (see [H04M 1/0264](#) for mounting structure in mobile phones);
  - details of projectors peculiar to the use of an ESLM, e.g. dichroic or polarizing arrangements specially adapted for the ESLM (dichroic or polarizing arrangements in general [G02B](#), [G03B](#));
  - remote control of cameras or projectors peculiar to the EIS or the ESLM, e.g. affecting their operation, or based on a generated image signal;

- adaptations peculiar to the use of a EIS or ESLM and/or the display, the transmission, recording or other use of electrical image data and related circuitry, e.g. mounting of EIS or ESLM, integrated cleaning system for the EIS, dust mapping, cooling of the EIS, controlling the operation of the EIS by external input signals;
  - systems or apparatus wherein the inventive contribution lies in the interaction between features covered in Notes 1 above, concerning cameras and projectors, when interacting with those covered in Note 1 of [G03B](#), e.g. switch-over between electronic motion-blur correction of electronic viewfinder during focussing and optical motion-blur correction of the lens during exposure, electronic motion blur correction of the electronic image sensor based on output signals of additional sensor, or interaction between mechanical shutter and electronic control of the charge accumulation period of the EIS;
- }
- (in group [H04N 1/00](#) ) systems for the transmission or the reproduction of arbitrarily composed pictures or patterns in which the local light variations composing a picture are not subject to variation with time, e.g. documents (both written and printed), maps, charts, photographs (other than cinematograph films);
  - circuits specially designed for dealing with pictorial communication signals, e.g. television signals, as distinct from merely signals of a particular frequency range.
2. This subclass does not cover :
- circuits or other parts of systems which form the subject of other subclasses, which are covered by the corresponding subclasses, e.g. [H03C](#), [H03F](#), [H03J](#), [H04B](#), [H04H](#);
  - systems in which legible alphanumeric or like character forms are analysed according to step (a) of Note (1) to derive an electric signal from which the character is recognised by comparison with stored information, which are covered by subclass [G06K](#);
  - systems for the direct photographic copying of an original picture in which an electric signal representative of the picture is derived according to the said step (a) of and employed to modify the operation of the system, e.g. to control exposure, which are covered by class [G03](#);
  - systems for the reproduction according to step (b) of Note (1) of pictures comprising alphanumeric or like character forms but involving the production of the equivalent of a signal which would be derived according to the abovementioned step (a), e.g. by cams, punched card or tape, coded control signal, or other means, which are covered by the subclass for the application, e.g. [G01D](#), [G06T](#), [H04L](#);
  - systems for the reproduction to the above-mentioned step (b) of pictures comprising alphanumeric or like character forms and involving the generation according to the abovementioned step (a) of picture-representative electric signals from a pre-arranged assembly of such characters, or records thereof, forming an integral part of the systems, which are covered by the subclass for the application, e.g. [B41B](#), [G06K](#), subject to those applications which are covered by this subclass;
  - printing, duplication or marking methods, or materials or processes therefor, which are covered by the relevant subclasses, e.g. [B41C](#), [B41M](#), [G03C](#), [G03F](#), [G03G](#);
  - {apparatus or methods for taking photographs using light sensitive film for image capture, apparatus/methods for printing, for projecting or viewing images using film stock, photographic film or slides by optical means, e.g. mounting of optical elements, flashes, and their related controls, e.g. exposure, focus, (opto-)mechanical motion blur (anti-shake), cooling, beam shaping;}
  - {aspects of apparatus or methods for taking photographs using an electronic image sensor [EIS] for image capture, insofar as they

- correspond to those of said apparatus methods for taking photographs using light sensitive film, i.e. insofar as not peculiar to the presence of the EIS, e.g. mounting of optical elements or flashes not peculiar to the presence of the EIS, and their related controls insofar as they are not peculiar to the presence or use of the EIS, e.g. exposure, focus, (opto-)mechanical motion blur (anti-shake);}
- {aspects of apparatus or methods for projecting or viewing images using an electronic spatial light modulator [ESLM], insofar as they correspond to those of said apparatus/ methods for projecting or viewing images using film stock, photographic film or slides, i.e. insofar as not peculiar to the presence of the ESLM, e.g. mounting of optical elements not peculiar to the presence of the ESLM, and their related controls not peculiar to the presence of the ESLM, e.g. cooling, beam shaping, optical keystone correction;}
  - {(opto-)mechanical image enhancement in printers or projectors, e.g. keystone correction;}
  - {optical viewfinders;}
  - {remote control of cameras and projectors insofar not peculiar to the EIS or ESLM, e.g. not affecting their operation, or being based on a generated image signal;}
  - { optical aspects of camera modules using electronic image sensors and related constructional details (optical elements or arrangements associated with solid state imager structures [H01L 27/14625](#) ); }
  - {constructional aspects of projectors, e.g. cooling, beam shaping, light integrating means not peculiar to the ESLM;}
3. In this subclass, the following expression is used with the meaning indicated: "television systems" means those systems for the {electronic generation} , transmission and reproduction of arbitrarily composed pictures in which the local light variations composing a picture may change with time, e.g. natural "live" scenes, {electronic} recordings of such scenes such as cinematograph films.
4. {In this subclass, as in subclass [G03B](#), the following terms are used with the meaning indicated:
- "camera": a device capturing image information represented by light patterns reflected or emitted from objects, and exposing a light sensitive film or a main electronic image sensor during a timed exposure, usually through a photographic lens, and producing an image on a light sensitive film or an electrical image information signal respectively;
  - "projector": a device displaying image information by projection of light patterns, usually through an optical lens, wherein the light patterns are generated by illuminating an image, e.g. film or slide, or by converting an electric image signal into an optical signal using an electronic spatial light modulator;
  - "electronic image sensor [EIS]": optoelectronic transducer, converting optical image information into an electrical signal susceptible of being processed, stored, transmitted or displayed;
  - "additional sensor": a sensor, other than the main electronic image sensor, used for controlling a camera;
  - "electronic spatial light modulator [ESLM]": optoelectronic transducer converting electric signals representing image information into optical image information.
- }

#### WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups :

<del>H04N 5/31</del> <b>H04N5/31</b>	covered by	<a href="#">G01S 7/52</a> , <a href="#">G01S 15/89</a>
<a href="#">H04N 5/761</a>	covered by	<a href="#">H04N 5/782</a>



<a href="#">H04N 5/7613</a>	covered by	<a href="#">H04N 5/782</a>
<a href="#">H04N 5/7617</a>	covered by	<a href="#">H04N 5/782</a>
<a href="#">H04N 5/922</a>	covered by	<a href="#">H04N 5/92</a>
<a href="#">H04N 5/924</a>	covered by	<a href="#">H04N 5/92</a>
<a href="#">H04N 9/815</a>	covered by	<a href="#">H04N 9/81</a>
<a href="#">H04N 11/24</a>	covered by	<a href="#">H04N 11/002</a>
<a href="#">H04N 15/00</a>	covered by	<a href="#">H04N 13/00</a>

## Project: MP0322 (H04N)

- U H04N 5/00** Details of television systems (scanning details or combination thereof with generation of supply voltages [H04N 3/00](#); specially adapted for colour television [H04N 9/00](#); {servers specially adapted for the distribution of content [H04N 21/20](#); client devices specially adapted for the reception of or interaction with content [H04N 21/40](#)})
- NOTE  
Groups [H04N 5/341](#) - [H04N 5/378](#) are based on IPC2012.01
- U H04N 5/76** . Television signal recording (diagnosis, testing or measuring for television signal recorders [H04N 17/06](#); recording in connection with measuring [G01D](#); information storage {in which the television signal is not involved, driving, starting, stopping, head switching, editing, indexing} in general [G11](#), e.g. [G11B](#))
- U H04N 5/78** . . using magnetic recording ([H04N 5/91](#) takes precedence; {mechanical details in so far as non typical for television circuitry [G11B 5/00](#)})
- M H04N 5/781** . . . on ~~dises~~[disks](#) or drums
- U H04N 5/80** . . using electrostatic recording ([H04N 5/91](#) takes precedence)
- U H04N 5/82** . . . using deformable thermoplastic recording medium
- M H04N 5/83** . . . . on ~~dises~~[disks](#) or drums