

## TECHNICAL ANNEXES

List of projects contained in these Technical Annexes:

**A009; A012; A013; A014; A017; A018; A019; A020; A021; A022; A024; A025; A026; A027; A028; A029; C443; C447; C449; C452; C453; C455; D018; D039; D070; D077; D095; D100; D101; D102; D103; D106; D108; D109; D134; D136; D139; D140; D143; D172; D174; D175; D176; D177; D178; D180; D181; D187; D189; D190; D191; D193; D194; D195; D196; D197; D198; D199; D200; D201; D202; D203; D204; D205; D206; D207; D208; D209; M010; M014; M033; M034; M035; M036; M037; M038; M099; M101; M107; M701; M704; M705; M708; M715; M716**

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**ANNEX 1E    A01M            [ Project-Rapporteur : A024/EP ]    <CE42>**

CL   C   29/00 *Scaring or repelling devices, e.g. bird-scaring apparatus*

AL   D   29/02 (transferred to **A01M 29/16, A01M 29/18** )

AL   D   29/04 (transferred to **A01M 29/20** )

AL   N   29/06 • *using visual means, e.g. scarecrows, moving elements, specific shapes, patterns or the like*

AL   N   29/08 • • *using reflection, colours or films with specific transparency or reflectivity*

AL   N   29/10 • • *using light sources, e.g. lasers or flashing lights*

AL   N   29/12 • *using odoriferous substances, e.g. aromas, pheromones or chemical agents*

AL   N   29/14 • *using thermal effects*

AL   N   29/16 • *using sound waves*

AL   N   29/18 • • *using ultrasonic signals*

AL   N   29/20 • • *with generation of periodically explosive reports*

AL   N   29/22 • *using vibrations (**A01M 29/16** takes precedence)*

AL   N   29/24 • *using electric or magnetic effects, e.g. electric shocks, magnetic fields or microwaves*

AL   N   29/26 • • *specially adapted for birds, e.g. electrified rods, cords or strips*

AL   N   29/28 • • *specially adapted for insects*

AL   N   29/30 • *preventing or obstructing access or passage, e.g. by means of barriers, spikes, cords, obstacles or sprinkled water*

AL   N   29/32 • • *specially adapted for birds, e.g. spikes*

AL   N   29/34 • • *specially adapted for insects*

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ANNEX 2E    A23D            [ Project-Rapporteur : D194/DE ]    <CE42>

CL   M   Title **EDIBLE OILS OR FATS, e.g. MARGARINES, SHORTENINGS, COOKING OILS**  
(obtaining, refining, preserving [C11B](#), [C11C](#); hydrogenation [C11C 3/12](#))

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ANNEX 3E    A23F            [ Project-Rapporteur : D195/DE ]    <CE42>

CL   M   Title **COFFEE; TEA; THEIR SUBSTITUTES; MANUFACTURE, PREPARATION, OR  
INFUSION THEREOF**

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ANNEX 4E    A23J            [ Project-Rapporteur : D196/DE ]    <CE42>

CL   M   Title **PROTEIN COMPOSITIONS FOR FOODSTUFFS; WORKING-UP PROTEINS FOR  
FOODSTUFFS; PHOSPHATIDE COMPOSITIONS FOR FOODSTUFFS**

CL   M   1/00 **Obtaining protein compositions for foodstuffs; Bulk opening of eggs and separation of  
yolks from whites**

AL   M   1/04    · from fish or other sea animals

AL   M   1/06    · from blood

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ANNEX 5E    A23K            [ Project-Rapporteur : M716/SE ]    <CE42>

CL   M   Title **FEEDING-STUFFS SPECIALLY ADAPTED FOR ANIMALS; METHODS  
SPECIALLY ADAPTED FOR PRODUCTION THEREOF**

CL   M   3/00 **Processes specially adapted for preservation of materials in order to produce animal  
feeding-stuffs**

AL   M   3/02    · of green fodder (mechanical aspects of methods specially adapted for storing agricultural  
or horticultural crops [A01F 25/00](#))

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ANNEX 6E    A23L            [ Project-Rapporteur : D070/GB ]    <CE42>

CL   M   1/01    · General methods of cooking foods, e.g. by roasting or frying (methods specialized to  
particular food, see the relevant subgroups)

AL   M   1/035    · · Emulsifiers

CL   M   1/076    · Products from apiculture, e.g. royal jelly or pollen; Substitutes therefor

- CL M 1/10 · containing cereal-derived products
- CL M 1/16 · · Types of pasta, e.g. macaroni, noodles
- CL M 1/19 · Cream substitutes
- CL M 1/20 · Treatment of pulse, i.e. fruits of leguminous plants, for production of fodder or food; Preparation of products from legumes; Chemical means for rapid cooking of these foods, e.g. treatment with phosphates
- CL M 1/221 · · Natural spices, flavouring agents, or condiments; Extracts thereof
- AL M 1/222 · · · from fruit, e.g. essential oils
- CL M 1/277 · · Removing colour by chemical reaction, e.g. bleaching
- CL M 1/29 · Modifying nutritive qualities of foods; Dietetic products (**A23L 1/09** takes precedence; dietetic salt substitutes **A23L 1/22**)
- CL M 1/305 · · · Amino acids, peptides or proteins
- CL M 1/31 · Meat products; Meat meal
- CL M 2/38 · Other non-alcoholic beverages
- CL M 2/70 · Clarifying or fining of non-alcoholic beverages; Removing unwanted matter
- CL M **3/00** **Preservation of foods or foodstuffs, in general, e.g. pasteurising, sterilising, specially adapted for foods or foodstuffs** (preserving foods or foodstuffs in association with packaging **B65B 55/00**)

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**ANNEX 7E    A45D            [ Project-Rapporteur : D134/EP ]    <CE42>**

- AL M 1/04 · · by electricity
- AL M 2/06 · · in the form of rods with base plate or base clamp
- AL M 2/34 · · · with base clamp
- AL M 2/36 · Hair curlers or hair winders with incorporated heating or drying means, e.g. electric, using chemical reaction
- CL M **7/00** **Processes of waving, straightening or curling hair**
- AL M 19/02 · Hand-actuated implements, e.g. hand-actuated spray heads
- CL M **20/00** **Hair drying devices; Accessories therefor** (**A45D 2/00** takes precedence)
- AL M 20/08 · · heated electrically

- AL M 20/30 · · Electric circuitry specially adapted for hair drying devices
- AL M 20/38 · · Arrangement of the electric heating means
- CL M **27/00 Shaving accessories** (containers for handling shaving soap [A45D 40/00](#); shaving mirrors [A45D 42/08](#))
- AL M 27/22 · Containers or carriers for storing shaving appliances
- AL M 27/24 · · for storing razor blades, e.g. after use (devices for collecting used scalpel blades [A61B 17/3217](#); devices for dispensing new razor-blades [B65D 83/10](#))
- AL M 27/42 · Shaving masks
- CL M **29/00 Manicuring or pedicuring implements**
- AL M 29/02 · Nail clippers or cutters
- AL M 29/04 · Nail files, e.g. manually operated
- AL M 29/11 · Polishing devices for nails
- AL M 29/20 · · Boxes, cases, etuis or the like specially adapted therefor
- AL M 33/18 · with special decorative arrangements or form
- CL M **34/00 Containers or accessories specially adapted for handling liquid toilet or cosmetic substances, e.g. perfumes**
- AL M **40/00 Casings or accessories specially adapted for storing or handling solid or pasty toilet or cosmetic substances, e.g. shaving soap, lipstick or make-up** (features common to containers for handling powdery or liquid toilet or cosmetic substances [A45D 33/00-A45D 37/00](#); cosmetic or like preparations [A61K 8/00](#), [A61Q](#); sample tables or the like [G09F 5/00](#))
- CL M 40/26 · Appliances specially adapted for applying pasty paint, e.g. using roller, using a ball
- CL M **42/00 Hand, pocket, or shaving mirrors**
- AL M 44/08 · Protecting mantles; Shoulder-shields; Collars; Bibs
- AL M 44/10 · Head-rests; Neck-rests
- AL M 44/22 · Face shaping devices, e.g. chin straps; Wrinkle removers, e.g. stretching the skin (skin stretchers for shaving [A45D 27/38](#))
- CL N **97/00 *Hairdressing equipment or cosmetic treatment not provided for in other groups of this subclass***
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ANNEX 8E    A47            [ Project-Rapporteur : M033/IB ]    <CE42>

CL    M    Title **FURNITURE; DOMESTIC ARTICLES OR APPLIANCES; COFFEE MILLS;  
SPICE MILLS; SUCTION CLEANERS IN GENERAL**

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ANNEX 9E    A47J            [ Project-Rapporteur : M014/IB ]    <CE42>

CL    M    39/00 **Heat-insulated warming chambers; Cupboards with heating arrangements for  
warming kitchen utensils**

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ANNEX 10E    A47K            [ Project-Rapporteur : M010/IB ]    <CE42>

CL    M    5/00 **Holders or dispensers for soap, toothpaste, or the like** (lather making devices for shaving  
[A45D 27/02](#); specially adapted for shaving soap or cosmetics [A45D 33/00-A45D 40/00](#))

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ANNEX 11E    A61H            [ Project-Rapporteur : D106/US ]    <CE42>

CL    M    Title **PHYSICAL THERAPY APPARATUS, e.g. DEVICES FOR LOCATING OR  
STIMULATING REFLEX POINTS IN THE BODY; ARTIFICIAL RESPIRATION;  
MASSAGE; BATHING DEVICES FOR SPECIAL THERAPEUTIC OR HYGIENIC  
PURPOSES OR SPECIFIC PARTS OF THE BODY** (electrotherapy, magnetotherapy,  
radiation therapy, ultrasound therapy [A61N](#))

CL    M    1/00 **Apparatus for passive exercising** ([A61H 5/00](#) takes precedence) ; **Vibrating apparatus;  
Chiropractic devices, e.g. body impacting devices, external devices for briefly  
extending or aligning unbroken bones**

CL    M    3/00 **Appliances for aiding patients or disabled persons to walk about** (apparatus for helping  
babies to walk [A47D 13/04](#))

AL    M    3/06 • Walking aids for blind persons (replacing direct visual perception by another kind of  
perception [A61F 9/08](#))

CL    M    7/00 **Devices for suction-kneading massage; Devices for massaging the skin by rubbing or  
brushing not otherwise provided for** (electro-medical massage devices applying electric  
current by contact [A61N 1/18](#))

AL    M    33/08 • • Air douches for hygienic purposes

CL    M    33/14 • Devices for gas baths with ozone, hydrogen, or the like

CL    M    39/04 • Devices for pressing such points, e.g. shiatsu

AL    M    39/06 • Devices for heating or cooling such points within cell-life limits

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ANNEX 12E A61L [ Project-Rapporteur : D108/US ] <CE42>

- CL M Title **METHODS OR APPARATUS FOR STERILISING MATERIALS OR OBJECTS IN GENERAL; DISINFECTION, STERILISATION, OR DEODORISATION OF AIR; CHEMICAL ASPECTS OF BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES; MATERIALS FOR BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES** (preservation of bodies or disinfecting characterised by the agent employed [A01N](#); preserving, e.g. sterilising, food or foodstuffs [A23](#); preparations for medical, dental or toilet purposes [A61K](#))
- CL M 2/00 **Methods or apparatus for disinfecting or sterilising materials or objects other than foodstuffs or contact lenses; Accessories therefor** (atomisers for disinfecting agents [A61M](#); sterilisation of packages or package contents in association with packaging [B65B 55/00](#); treatment of water, waste water, sewage or sludge [C02F](#); disinfecting paper [D21H 21/36](#); disinfecting devices for water closets [E03D](#); articles having provision for disinfection, see the relevant subclasses for these articles, e.g. [H04R 1/12](#))
- AL M 2/28 • • Devices for testing the effectiveness or completeness of sterilisation, e.g. indicators which change colour (apparatus involving enzymes or micro-organisms [C12M 1/34](#))
- CL M 9/00 **Disinfection, sterilisation or deodorisation of air** (purifying air by respirators [A62B](#), [A62D 9/00](#); chemical or biological purification of waste gases [B01D 53/34](#); air-conditioning systems incorporating sterilisation [F24F 3/16](#))
- CL M 17/00 **Materials for surgical sutures or for ligaturing blood vessels**
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ANNEX 13E A61M [ Project-Rapporteur : D109/US ] <CE42>

- CL M 1/00 **Suction or pumping devices for medical purposes; Devices for carrying-off, for treatment of, or for carrying-over, body-liquids; Drainage systems** (catheters [A61M 25/00](#); tube connectors, tube couplings, valves or branch units, specially adapted for medical use [A61M 39/00](#); devices for taking samples of blood [A61B 5/15](#); saliva removers for dentists [A61C 17/06](#); filters implantable into blood vessels [A61F 2/01](#))
- CL M 1/06 • Milking pumps
- CL M 1/10 • Blood pumps; Artificial hearts; Devices for mechanical circulatory assistance, e.g. intra-aortic balloon pumps (heart stimulation [A61H 31/00](#))
- CL M 1/14 • Dialysis systems; Artificial kidneys; Blood oxygenators (semi-permeable membranes characterised by the material, manufacturing processes therefor [B01D 71/00](#))
- CL M 5/14 • Infusion devices, e.g. infusing by gravity; Blood infusion; Accessories therefor
- CL M 5/24 • • Ampoule syringes, i.e. syringes with needle for use in combination with replaceable ampoules or cartridges, e.g. automatic
- CL M 5/36 • with means for eliminating or preventing injection or infusion of air into body
- CL M 11/00 **Sprayers or atomisers specially adapted for therapeutic purposes**

CL M 13/00 **Insufflators for therapeutic or disinfectant purposes**

CL M 16/00 **Devices for influencing the respiratory system of patients by gas treatment, e.g. mouth-to-mouth respiration; Tracheal tubes** (stimulating the respiratory movement by mechanical, pneumatic or electrical means, iron lungs combined with gas breathing means [A61H 31/00](#))

CL M 16/04 · Tracheal tubes

CL M 16/22 · Carbon dioxide-absorbing devices

CL M 19/00 **Devices for local anaesthesia; Devices for hypothermia** ([A61M 5/42](#) takes precedence)

CL M 25/00 **Catheters; Hollow probes** (for measuring or testing [A61B](#))

CL M 29/00 **Dilators with or without means for introducing media, e.g. remedies** (stents [A61F 2/82](#))

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ANNEX 14E A62 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **LIFE-SAVING; FIRE-FIGHTING**

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ANNEX 15E A63D [ Project-Rapporteur : D136/GB ] <CE42>

CL M Title **BOWLING-ALLEYS; BOWLING GAMES; BOCCIA; BOWLS; BAGATELLE; BILLIARDS**

CL M 3/00 **Table alleys; Miniature bowling-alleys; Bowling games**

CL M 3/02 · Arrangement of devices for propelling or projecting the balls

CL M 15/08 · Cues

AL M 15/20 · Scoring or registering devices

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ANNEX 16E A63H [ Project-Rapporteur : M036/IB ] <CE42>

AL M 3/06 · Air-filled or inflatable toy figures

AL M 3/42 · · · Manufacture of eyes

AL M 3/44 · · Dolls' hair or wigs; Eyelashes; Eyebrows

CL M 5/00 **Musical or noise-producing devices for additional toy effects other than acoustical** (musical tops [A63H 1/28](#); hand-thrown impact-exploded noise makers [F42B 4/16](#))

AL M 13/15 · · · imitating drawing or writing

CL M **17/00 Toy vehicles, e.g. with self-drive; Accessories therefor**

AL M 17/385 · · · remotely controlled

AL M 19/36 · Model railway structures, e.g. kinds of arrangement of several units in containers, or on plates, or in combination with scenics for toy purposes

AL M 27/10 · Balloons

AL M 27/127 · Flying toys capable of landing or taking-off vertically; Flying tops

AL M 27/24 · · combustion engine or electric motor propelled

AL M **30/00 Remote-control arrangements specially adapted for toys, e.g. for toy vehicles** (remotely controlled steering mechanisms for toy vehicles [A63H 17/385](#); for model railways [A63H 19/24](#), [A63H 19/28](#))

AL M 30/02 · Electrical arrangements

CL M **31/00 Gearing for toys**

AL M 33/18 · Throwing or slinging toys (spring toy guns [F41B 7/08](#))

AL M 33/20 · Toys with parachutes; Toy parachutes

CL M 33/28 · Soap-bubble toys; Smoke toys (arrangements for producing smoke images or rings during smoking [A24F 13/30](#))

CL M 33/30 · Imitations of apparatus, not otherwise provided for, e.g. telephones, weighing-machines or cash-registers

CL M 33/38 · Picture books with additional toy effects, e.g. pop-up or slide displays

AL M 33/40 · Windmills; Other toys actuated by air currents (driving mechanisms for toys actuated by steam or compressed air [A63H 29/16](#))

AL M 33/42 · Toy models or toy scenery not otherwise provided for

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ANNEX 17E B01 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **PHYSICAL OR CHEMICAL PROCESSES OR APPARATUS IN GENERAL**

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ANNEX 18E B01D [ Project-Rapporteur : M705/GB ] <CE42>

CL M Note  
B01D 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. Filtration is a process that normally uses a filter medium;
  - "filter medium" is a porous material or porous arrangement of material used to filter solids from fluids; [5]
  - "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; [5]
  - "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; [5]
  - "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; [5]
  - "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. [5]
3. For apparatus used in drying or evaporation, class **F26** takes precedence over this subclass.
4. Group **B01D 59/00** takes precedence over the other groups of this subclass and over other subclasses in class **B01**.

**CL M 29/00 Filters with filtering elements stationary during filtration, e.g. pressure or suction filters, not covered by groups B01D 24/00-B01D 27/00; Filtering elements therefor**

**CL M 35/00 Filtering devices having features not specifically covered by groups B01D 24/00-B01D 33/00, or for applications not specifically covered by groups B01D 24/00-B01D 33/00; Auxiliary devices for filtration; Filter housing constructions**

**CL M 35/06** • Filters making use of electricity or magnetism (ultrafiltration, microfiltration **B01D 61/14**; electro dialysis, electro-osmosis **B01D 61/42**; combinations of filters and magnetic separators **B03C 1/30**)

**CL M 36/00 Filter circuits or combinations of filters with other separating devices** (devices for the removal of gas, e.g. air purge systems **B01D 35/01**; magnetic or electrostatic separators combined with filters **B03C**)

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**ANNEX 19E B03 [ Project-Rapporteur : M033/IB ] <CE42>**

**CL M Title SEPARATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION OF SOLID MATERIALS FROM SOLID MATERIALS OR FLUIDS; SEPARATION BY HIGH-VOLTAGE ELECTRIC FIELDS**

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**ANNEX 20E B03D [ Project-Rapporteur : M036/IB ] <CE42>**

**CL M Title FLOTATION; DIFFERENTIAL SEDIMENTATION** (in combination with other separation of solids **B03B**; sink-float separation **B03B 5/28**)

**AL M 1/00 Flotation**

**CL M 1/001** • Flotation agents

**AL M 1/08** • Subsequent treatment of concentrated product

**AL M 1/10** • • Removing adhering liquid from separated materials

**CL M 1/14** • Flotation machines (devices for feeding measured quantities of reagents **B01J 4/02**)

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**ANNEX 21E B04C [ Project-Rapporteur : M036/IB ] <CE42>**

**CL M Title APPARATUS USING FREE VORTEX FLOW, e.g. CYCLONES** (exhaust or silencing apparatus for machines or engines having means for removing solid constituents of exhaust, using inertial or centrifugal separators **F01N 3/037**; cyclonic type combustion apparatus **F23**)

**AL M 5/02** • Construction of inlets by which the vortex flow is generated

**CL M 9/00 Combinations with other devices, e.g. fans** (with filters for separating particles from gases or vapour **B01D 50/00**; with dry electrostatic precipitation for separating particles from gases or vapour **B03C 3/15**)

**CL M 11/00 Accessories, e.g. safety or control devices, not otherwise provided for**

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**ANNEX 22E B05 [ Project-Rapporteur : M033/IB ] <CE42>**

**CL M Title SPRAYING OR ATOMISING IN GENERAL; APPLYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES, IN GENERAL**

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ANNEX 23E B05D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **PROCESSES FOR APPLYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES, IN GENERAL** (apparatus for applying liquids or other fluent materials to surfaces **B05B**, **B05C**; conveying articles or workpieces through baths of liquid **B65G**, e.g. **B65G 49/02**)

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ANNEX 24E B07 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **SEPARATING SOLIDS FROM SOLIDS; SORTING**

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ANNEX 25E B07B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **SEPARATING SOLIDS FROM SOLIDS BY SIEVING, SCREENING, OR SIFTING OR BY USING GAS CURRENTS; OTHER SEPARATING BY DRY METHODS APPLICABLE TO BULK MATERIAL, e.g. LOOSE ARTICLES FIT TO BE HANDLED LIKE BULK MATERIAL** (wet separating processes, sorting by processes using fluent material in the same way as liquid **B03**; combinations of dry separating apparatus with wet separating apparatus **B03B**; using liquids **B03B**, **B03D**; sorting by magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields **B03C**; centrifuges or vortex apparatus for carrying out physical processes **B04**; hand sorting, postal sorting, sorting by switching or other devices actuated in response to detection or measurement of some feature of articles or samples of material **B07C**)

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ANNEX 26E B07B [ Project-Rapporteur : D077/GB ] <CE42>

AL M 7/08 · using centrifugal force

CL M 13/00 **Grading or sorting solid materials by dry methods, not otherwise provided for; Sorting articles otherwise than by indirectly controlled devices**

CL M 15/00 **Combinations of apparatus for separating solids from solids by dry methods applicable to bulk material, e.g. loose articles fit to be handled like bulk material** (using gas currents **B07B 9/00**)

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ANNEX 27E B09 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **DISPOSAL OF SOLID WASTE; RECLAMATION OF CONTAMINATED SOIL**

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ANNEX 28E B09B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Note  
B09B

1. This subclass covers only single or combined, e.g. multistage, operations not fully classifiable in a single other subclass. [3]
2. In this subclass, the following terms or expressions are used with the meanings indicated:
  - "disposal" means the discarding, e.g. dumping, or destroying of waste or its transformation into something useful or harmless; [3]
  - "solid waste" includes waste which, although it has liquid content, is for practical purposes handled as solid. [3]
3. Attention is drawn to the following places:

<b>A23J 1/16</b>	Obtaining proteins from waste water of starch-manufacturing plants or like wastes
<b>A23K 1/06</b>	Animal feeding-stuffs from distillers' or brewers' waste
<b>A23K 1/08</b>	Animal feeding-stuffs from waste products of dairy plants
<b>A23K 1/10</b>	Animal feeding-stuffs from kitchen waste
<b>A43B 1/12</b>	Footwear made of rubber waste
<b>A61L 11/00</b>	Disinfection or sterilisation methods specially adapted for refuse
<b>A62D 3/00</b>	Processes for making harmful chemical substances harmless, or less harmful, by effecting a chemical change in the substances
<b>B01D 53/34</b>	Chemical or biological purification of waste gases
<b>B02C 18/00</b>	Disintegrating by knives or other cutting or tearing members which chop material into fragments
<b>B03B 7/00</b>	Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage
<b>B03B 9/06</b>	General arrangement of separating plant, e.g. flow sheets, specially adapted for refuse
<b>B05B 15/04</b>	Control of spray area of spraying plant, e.g. masking, side shields; Means for collection or re-use of excess material
<b>B08B 15/00</b>	Preventing escape of dirt or fumes from the area where they are produced; Collecting or removing dirt or fumes from that area
<b>B22F 8/00</b>	Manufacture of articles from scrap or waste metal particles
<b>B23D 25/14</b>	Machines or arrangements for shearing stock while the latter is travelling otherwise than in the direction of the cut without regard to the exact dimensions of the resulting material, e.g. for cutting up scrap
<b>B24B 55/12</b>	Devices for recovering materials resulting from grinding or polishing [7]
<b>B27B 33/20</b>	Edge trimming saw blades or tools combined with means to disintegrate waste
<b>B29B 17/00</b>	Recovery of plastics or other constituents of waste material containing plastics
<b>B30B 9/32</b>	Presses for consolidating scrap metal or for compacting used cars
<b>B62D 67/00</b>	Systematic disassembly of vehicles for recovery of salvageable components, e.g. for recycling [7]

<b>B63B 17/06</b>	Refuse discharge from vessels, e.g. for ash
<b>B63J 4/00</b>	Arrangements of installations for treating waste water or sewage on vessels
<b>B65F 1/00</b>	Refuse receptacles
<b>B65F 3/00</b>	Vehicles particularly adapted for collecting refuse
<b>B65F 5/00</b>	Gathering or removal of refuse otherwise than by receptacles or vehicles
<b>B65F 7/00</b>	Cleaning or disinfecting devices combined with refuse receptacles or refuse vehicles
<b>C03C 1/00</b>	Ingredients generally applicable to manufacture of glasses, glazes or vitreous enamels [5]
<b>C04B 7/24</b>	Hydraulic cements from oil shales, residues or waste other than slag
<b>C04B 11/26</b>	Calcium sulfate cements made from phosphogypsum or from waste, e.g. purification products of smoke
<b>C04B 18/04</b>	Waste material or refuse used as fillers for mortars, concrete, artificial stone or the like
<b>C04B 33/132</b>	Waste materials or refuse used as compounding ingredients for clay-wares [8]
<b>C05F</b>	Fertilisers from waste or refuse [7]
<b>C08B 16/00</b>	Regeneration of cellulose [7]
<b>C08J 9/33</b>	Agglomerating foam fragments, e.g. waste foam [7]
<b>C08J 11/00</b>	Recovery of waste materials of macromolecular substances
<b>C08L 17/00</b>	Compositions of reclaimed rubber
<b>C09K 11/01</b>	Recovery of luminescent materials [7]
<b>C10B 53/00</b>	Destructive distillation, specially adapted for particular solid raw materials or solid raw materials in special form
<b>C10B 57/00</b>	Other processes not covered before; Features of destructive distillation processes in general
<b>C10G 1/10</b>	Production of liquid hydrocarbon mixtures from rubber or rubber waste
<b>C10G 73/23</b>	Recovery of used solvents [7]
<b>C10L 5/46</b>	Solid fuels essentially based on sewage, house or town refuse
<b>C10L 5/48</b>	Solid fuels essentially based on industrial residues and waste materials
<b>C10M 175/02</b>	Working-up used lubricants based on mineral oils
<b>C11B 13/00</b>	Recovery of fats, fatty oils, or fatty acids from waste materials
<b>C11D 19/00</b>	Recovery of glycerol from a saponification liquor
<b>C12F 3/00</b>	Recovery of by-products
<b>C12F 3/08</b>	Recovery of alcohol from press residues or other waste material
<b>C12P 7/08</b>	Biochemical production of ethanol from waste
<b>C22B 7/00</b>	Working-up raw materials other than ores, e.g. scrap, to produce non-ferrous metals or compounds thereof

<b>C22B 19/28</b>	Obtaining zinc or zinc oxide from muffle furnace residues
<b>C22B 19/30</b>	Obtaining zinc or zinc oxide from metallic residues or scraps
<b>C22B 25/06</b>	Obtaining tin from scrap
<b>C25D 13/24</b>	Regeneration of process liquids used in electrophoretic coating [7]
<b>C25D 21/16</b>	Regeneration of process solutions used in electrolytic coating
<b>D01B</b>	Mechanical treatment of natural fibrous or filamentary material to obtain fibres or filaments, e.g. for spinning
<b>D01C 5/00</b>	Carbonising rags to recover animal fibres
<b>D01F 13/00</b>	Recovery of starting material, waste material or solvents during the manufacture of artificial filaments or the like
<b>D01G 11/00</b>	Disintegrating fibre-containing articles to obtain fibres for re-use
<b>D01H 11/00</b>	Arrangements for confining or removing dust, fly, or the like
<b>D06L 1/10</b>	Regeneration of used chemical baths used for dry-cleaning or washing fibres, fabrics or the like
<b>D21B 1/08</b>	Dry treatment of waste paper or rags for making paper or for the production of cellulose
<b>D21B 1/32</b>	Defibrating waste paper
<b>D21C 5/02</b>	Processes for obtaining cellulose by working-up waste paper
<b>D21C 11/14</b>	Regeneration of pulp liquors by wet combustion
<b>D21F 1/66</b>	Re-use of pulp-water in wet end machines for making continuous webs of paper
<b>D21H 17/01</b>	Waste products added to the pulp or used in paper-impregnating material [5]
<b>E03F</b>	Sewers, cesspools
<b>E04F 17/10</b>	Arrangements in buildings for the disposal of refuse
<b>F23G</b>	Consuming waste by combustion
<b>F23J</b>	Removal or treatment of combustion products or combustion residues
<b>G03C 11/24</b>	Removing emulsion from waste photographic material
<b>G03G 21/10</b>	Collecting or recycling waste developer used in electrography, electrophotography, magnetography
<b>G21F 9/28</b>	Treating radioactively contaminated solids
<b>H01B 15/00</b>	Apparatus or processes for salvaging material from electric cables
<b>H01J 9/52</b>	Recovery of material from discharge tubes or lamps [7]
<b>H01M 6/52</b>	Reclaiming serviceable parts of waste cells or batteries
<b>H01M 10/54</b>	Reclaiming serviceable parts of waste accumulators. [3]

ANNEX 30E B21D [ Project-Rapporteur : A018/JP ] <CE42>

AL C 26/02 · *by applying fluid pressure*

AL N 26/021 · · *Deforming sheet bodies*

AL D 26/023 < Delete new entry >

AL N 26/025 · · · *Means for controlling the clamping or opening of the moulds*

AL N 26/027 · · · *Means for controlling fluid parameters, e.g. pressure or temperature*

AL N 26/029 · · · *Closing or sealing means*

AL N 26/031 · · · *Mould construction ([B21D 26/025](#)-[B21D 26/029](#) take precedence)*

AL N 26/033 · · *Deforming tubular bodies (corrugating tubes by applying fluid pressure [B21D 15/03](#), [B21D 15/10](#))*

AL D 26/035 < Delete new entry >

AL N 26/037 · · · *Forming branched tubes*

AL N 26/039 · · · *Means for controlling the clamping or opening of the moulds*

AL N 26/041 · · · *Means for controlling fluid parameters, e.g. pressure or temperature*

AL N 26/043 · · · *Means for controlling the axial pusher*

AL N 26/045 · · · *Closing or sealing means*

AL N 26/047 · · · *Mould construction ([B21D 26/037](#)-[B21D 26/045](#) take precedence)*

AL N 26/049 · · · *Deforming bodies having a closed end*

AL N 26/051 · · · *Deforming double-walled bodies*

AL N 26/053 · · *characterised by the material of the blanks*

AL N 26/055 · · · *Blanks having super-plastic properties*

AL N 26/057 · · · *Tailored blanks*

AL N 26/059 · · · *Layered blanks*

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ANNEX 31E B21F [ Project-Rapporteur : M014/IB ] <CE42>

CL M 11/00 **Cutting wire** (hand-held metal-shearing or metal-cutting devices **B23D 29/00**; hand cutting tools with two jaws which come into abutting contact **B26B 17/00**)

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ANNEX 32E B23 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **MACHINE TOOLS; METAL-WORKING NOT OTHERWISE PROVIDED FOR**

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ANNEX 33E B26D [ Project-Rapporteur : C443/DE ] <CE42>

CL M Title **CUTTING; DETAILS COMMON TO MACHINES FOR SEVERING, e.g. BY CUTTING, PERFORATING, PUNCHING, STAMPING-OUT** (soil-working **A01B**; for growing crops or plants **A01D**, **A01G**; for fodder or straw **A01F**; for bulk butter **A01J**; for dough **A21C**; slaughtering **A22B**; for tobacco, cigars or cigarettes **A24**; marking-out, perforating or making buttonholes **A41H 25/00**; manufacturing footwear **A43D**; brushmaking **A46D**; surgery **A61B**; disintegrating, mincing or shredding in general **B02C**; cutting wire, making pins or nails **B21F**, **B21G**; of the kind used for metal **B23**; cutting by abrasive fluid jets **B24C 5/02**; hand-held cutting tools **B26B**; perforating, cutting-out, stamping-out or punching, or severing by means other than cutting **B26F**; for wood **B27**; for stone **B28D**; working of plastics or substances in a plastic state **B29**; making boxes, cartons, envelopes or bags, of paper or similarly worked materials, e.g. metal foil, **B31B**; article or web delivery apparatus incorporating cutting or line-perforating devices **B65H 35/00**; for leather or upholstery **B68**, **C14B**; for glass **C03B**; making matches **C06F**; for peat **C10F**; for sugar **C13B 45/00**; for textile materials **D06H**; civil engineering, building, mining, *see* section E; devices for withdrawing samples by cutting **G01N 1/04**; for light guides **G02B 6/25**; cutting processed photographic material **G03D 15/04**)

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ANNEX 34E B29 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **WORKING OF PLASTICS; WORKING OF SUBSTANCES IN A PLASTIC STATE IN GENERAL**

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ANNEX 35E B29K [ Project-Rapporteur : M704/EP ] <CE42>

AL M 1/00 **Use of cellulose, modified cellulose or cellulose derivatives, e.g. viscose, as moulding material**

AL M 7/00 **Use of natural rubber as moulding material**

AL M 9/00 **Use of rubber derived from conjugated dienes, as moulding material**



- AL M 19/00 Use of rubber not provided for in a single one of main groups **B29K 7/00-B29K 9/00**, as moulding material
- AL M 21/00 Use of unspecified rubbers as moulding material
- AL M 23/00 Use of polyalkenes as moulding material
- AL M 25/00 Use of polymers of vinyl-aromatic compounds as moulding material
- AL M 27/00 Use of polyvinylhalogenides as moulding material
- AL M 29/00 Use of polyvinylalcohols, polyvinylethers, polyvinylaldehydes, polyvinylketones or polyvinylketals as moulding material
- AL M 31/00 Use of polyvinylesters as moulding material
- AL M 33/00 Use of polymers of unsaturated acids or derivatives thereof, as moulding material (**B29K 35/00** takes precedence)
- AL M 35/00 Use of polymers of unsaturated polycarboxylic acids as moulding material
- AL M 45/00 Use of polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins, as moulding material
- AL M 55/00 Use of specific polymers obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of main groups **B29K 23/00-B29K 45/00**, as moulding material
- AL M 59/00 Use of polyacetals as moulding material
- AL M 61/00 Use of condensation polymers of aldehydes or ketones, as moulding material
- AL M 63/00 Use of epoxy resins as moulding material
- AL M 67/00 Use of polyesters as moulding material
- AL M 69/00 Use of polycarbonates as moulding material
- AL M 71/00 Use of polyethers as moulding material
- AL M 73/00 Use of other polymers having oxygen as the only hetero atom in the main chain, as moulding material
- AL M 75/00 Use of polyureas or polyurethanes as moulding material
- AL M 77/00 Use of polyamides, e.g. polyesteramides, as moulding material
- AL M 79/00 Use of other polymers having nitrogen, with or without oxygen or carbon only, in the main chain, as moulding material
- AL M 81/00 Use of polymers having sulfur, with or without nitrogen, oxygen or carbon only, in the main chain, as moulding material

- AL M 83/00 Use of polymers having silicon, with or without sulfur, nitrogen, oxygen or carbon only, in the main chain, as moulding material
- AL M 85/00 Use of polymers having elements other than silicon, nitrogen, oxygen or carbon only, in the main chain, as moulding material
- AL M 86/00 Use of specific polymers obtained by polycondensation or polyaddition, not provided for in a single one of main groups [B29K 59/00-B29K 85/00](#), as moulding material
- AL M 91/00 Use of waxes as moulding material
- AL M 95/00 Use of bituminous materials as moulding material
- AL M 96/00 Use of specified macromolecular materials not provided for in a single one of main groups [B29K 1/00-B29K 95/00](#), as moulding material
- AL M 101/00 Use of unspecified macromolecular compounds as moulding material (use of unspecified rubbers [B29K 21/00](#))
- AL M 103/00 Use of resin-bonded materials as moulding material
- AL M 201/00 Use of cellulose, modified cellulose or cellulose derivatives, e.g. viscose, as reinforcement
- AL M 207/00 Use of natural rubber as reinforcement
- AL M 209/00 Use of rubber derived from conjugated dienes, as reinforcement
- AL M 219/00 Use of rubber not provided for in a single one of main groups [B29K 207/00-B29K 209/00](#), as reinforcement
- AL M 221/00 Use of unspecified rubbers as reinforcement
- AL M 223/00 Use of polyalkenes as reinforcement
- AL M 225/00 Use of polymers of vinyl-aromatic compounds as reinforcement
- AL M 227/00 Use of polyvinylhalogenides as reinforcement
- AL M 229/00 Use of polyvinylalcohols, polyvinylethers, polyvinylaldehydes, polyvinylketones or polyvinylketals as reinforcement
- AL M 231/00 Use of polyvinylesters as reinforcement
- AL M 233/00 Use of polymers of unsaturated acids or derivatives thereof, as reinforcement ([B29K 235/00](#) takes precedence)
- AL M 235/00 Use of polymers of unsaturated polycarboxylic acids as reinforcement
- AL M 245/00 Use of polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins, as reinforcement
- AL M 255/00 Use of specific polymers obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of main groups [B29K 223/00-B29K 245/00](#), as reinforcement

- AL M 259/00 Use of polyacetals as reinforcement
- AL M 261/00 Use of condensation polymers of aldehydes or ketones, as reinforcement
- AL M 263/00 Use of epoxy resins as reinforcement
- AL M 267/00 Use of polyesters as reinforcement
- AL M 269/00 Use of polycarbonates as reinforcement
- AL M 271/00 Use of polyethers as reinforcement
- AL M 273/00 Use of other polymers having oxygen as the only hetero atom in the main chain, as reinforcement
- AL M 275/00 Use of polyureas or polyurethanes as reinforcement
- AL M 277/00 Use of polyamides, e.g. polyesteramides, as reinforcement
- AL M 279/00 Use of other polymers having nitrogen, with or without oxygen or carbon only, in the main chain, as reinforcement
- AL M 281/00 Use of polymers having sulfur, with or without nitrogen, oxygen or carbon only, in the main chain, as reinforcement
- AL M 283/00 Use of polymers having silicon, with or without sulfur, nitrogen, oxygen or carbon only, in the main chain, as reinforcement
- AL M 285/00 Use of polymers having elements other than silicon, nitrogen, oxygen or carbon only, in the main chain, as reinforcement
- AL M 286/00 Use of specific polymers obtained by polycondensation or polyaddition, not provided for in a single one of main groups [B29K 259/00](#)-[B29K 285/00](#), as reinforcement
- AL M 295/00 Use of bituminous materials as reinforcement
- AL M 296/00 Use of specific macromolecular materials not provided for in a single one of main groups [B29K 201/00](#)-[B29K 295/00](#), as reinforcement
- AL M 301/00 Use of unspecified macromolecular compounds as reinforcement (use of unspecified rubbers [B29K 221/00](#))
- AL M 303/00 Use of resin-bonded materials as reinforcement
- AL M 305/00 Use of metals, their alloys or their compounds, as reinforcement
- AL M 307/00 Use of elements other than metals as reinforcement
- AL M 309/00 Use of inorganic materials not provided for in groups [B29K 303/00](#)-[B29K 307/00](#), as reinforcement
- AL M 311/00 Use of natural products or their composites, not provided for in groups [B29K 201/00](#)-[B29K 309/00](#), as reinforcement
- AL M 401/00 Use of cellulose, modified cellulose or cellulose derivatives, e.g. viscose, as filler

- AL M 407/00 Use of natural rubber as filler
- AL M 409/00 Use of rubber derived from conjugated dienes, as filler
- AL M 419/00 Use of rubber not provided for in a single one of main groups [B29K 407/00-B29K 409/00](#), as filler
- AL M 421/00 Use of unspecified rubbers as filler
- AL M 423/00 Use of polyalkenes as filler
- AL M 425/00 Use of polymers of vinyl-aromatic compounds as filler
- AL M 427/00 Use of polyvinylhalogenides as filler
- AL M 429/00 Use of polyvinylalcohols, polyvinylethers, polyvinylaldehydes, polyvinylketones or polyvinylketals as filler
- AL M 431/00 Use of polyvinylesters as filler
- AL M 433/00 Use of polymers of unsaturated acids or derivatives thereof, as filler ([B29K 435/00](#) takes precedence)
- AL M 435/00 Use of polymers of unsaturated polycarboxylic acids as filler
- AL M 445/00 Use of polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins, as filler
- AL M 455/00 Use of specific polymers obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of main groups [B29K 423/00-B29K 445/00](#), as filler
- AL M 459/00 Use of polyacetals as filler
- AL M 461/00 Use of condensation polymers of aldehydes or ketones, as filler
- AL M 463/00 Use of epoxy resins as filler
- AL M 467/00 Use of polyesters as filler
- AL M 469/00 Use of polycarbonates as filler
- AL M 471/00 Use of polyethers as filler
- AL M 473/00 Use of other polymers having oxygen as the only hetero atom in the main chain, as filler
- AL M 475/00 Use of polyureas or polyurethanes as filler
- AL M 477/00 Use of polyamides, e.g. polyesteramides, as filler
- AL M 479/00 Use of other polymers having nitrogen, with or without oxygen or carbon only, in the main chain, as filler

- AL M 481/00 Use of polymers having sulfur, with or without nitrogen, oxygen or carbon only, in the main chain, as filler
- AL M 483/00 Use of polymers having silicon, with or without sulfur, nitrogen, oxygen or carbon only, in the main chain, as filler
- AL M 485/00 Use of polymers having elements other than silicon, nitrogen, oxygen or carbon only, in the main chain, as filler
- AL M 486/00 Use of specific polymers obtained by polycondensation or polyaddition, not provided for in a single one of main groups [B29K 459/00-B29K 485/00](#), as filler
- AL M 491/00 Use of waxes as filler
- AL M 495/00 Use of bituminous materials as filler
- AL M 496/00 Use of specific macromolecular materials not provided for in a single one of main groups [B29K 401/00-B29K 495/00](#), as filler
- AL M 501/00 Use of unspecified macromolecular compounds as filler (use of unspecified rubbers [B29K 421/00](#))
- AL M 503/00 Use of resin-bonded materials as filler
- AL M 505/00 Use of metals, their alloys or their compounds, as filler
- AL M 507/00 Use of elements other than metals as filler
- AL M 509/00 Use of inorganic materials not provided for in groups [B29K 503/00-B29K 507/00](#), as filler
- AL M 511/00 Use of natural products or their composites, not provided for in groups [B29K 401/00-B29K 509/00](#), as filler
- AL M 601/00 Use of cellulose, modified cellulose or cellulose derivatives, e.g. viscose, for preformed parts, e.g. for inserts
- AL M 607/00 Use of natural rubber for preformed parts, e.g. for inserts
- AL M 609/00 Use of rubber derived from conjugated dienes, for preformed parts, e.g. for inserts
- AL M 619/00 Use of rubber not provided for in a single one of main groups [B29K 607/00-B29K 609/00](#), for preformed parts, e.g. for inserts
- AL M 621/00 Use of unspecified rubbers for preformed parts, e.g. for inserts
- AL M 623/00 Use of polyalkenes for preformed parts, e.g. for inserts
- AL M 625/00 Use of polymers of vinyl-aromatic compounds for preformed parts, e.g. for inserts
- AL M 627/00 Use of polyvinylhalogenides for preformed parts, e.g. for inserts
- AL M 629/00 Use of polyvinylalcohols, polyvinylethers, polyvinylaldehydes, polyvinylketones or polyvinylketals for preformed parts, e.g. for inserts

- AL M 631/00 Use of polyvinylesters for preformed parts, e.g. for inserts
- AL M 633/00 Use of polymers of unsaturated acids or derivatives thereof, for preformed parts, e.g. for inserts (B29K 635/00 takes precedence)
- AL M 635/00 Use of polymers of unsaturated polycarboxylic acids for preformed parts, e.g. for inserts
- AL M 645/00 Use of polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins, for preformed parts, e.g. for inserts
- AL M 655/00 Use of specific polymers obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of main groups B29K 623/00-B29K 645/00, for preformed parts, e.g. for inserts
- AL M 659/00 Use of polyacetals for preformed parts, e.g. for inserts
- AL M 661/00 Use of condensation polymers of aldehydes or ketones, for preformed parts, e.g. for inserts
- AL M 663/00 Use of epoxy resins for preformed parts, e.g. for inserts
- AL M 667/00 Use of polyesters for preformed parts, e.g. for inserts
- AL M 669/00 Use of polycarbonates for preformed parts, e.g. for inserts
- AL M 671/00 Use of polyethers for preformed parts, e.g. for inserts
- AL M 673/00 Use of other polymers having oxygen as the only hetero atom in the main chain, for preformed parts, e.g. for inserts
- AL M 675/00 Use of polyureas or polyurethanes for preformed parts, e.g. for inserts
- AL M 677/00 Use of polyamides, e.g. polyesteramides, for preformed parts, e.g. for inserts
- AL M 679/00 Use of other polymers having nitrogen, with or without oxygen or carbon only, in the main chain, for preformed parts, e.g. for inserts
- AL M 681/00 Use of polymers having sulfur, with or without nitrogen, oxygen or carbon only, in the main chain, for preformed parts, e.g. for inserts
- AL M 683/00 Use of polymers having silicon, with or without sulfur, nitrogen, oxygen or carbon only, in the main chain, for preformed parts, e.g. for inserts
- AL M 685/00 Use of polymers having elements other than silicon, nitrogen, oxygen or carbon only, in the main chain, for preformed parts, e.g. for inserts
- AL M 686/00 Use of specific polymers obtained by polycondensation or polyaddition, not provided for in a single one of main groups B29K 659/00-B29K 685/00, for preformed parts, e.g. for inserts
- AL M 691/00 Use of waxes for preformed parts, e.g. for inserts
- AL M 695/00 Use of bituminous materials for preformed parts, e.g. for inserts

- AL M 696/00 Use of specific macromolecular materials not provided for in a single one of main groups **B29K 601/00-B29K 695/00**, for preformed parts, e.g. for inserts
- AL M 701/00 Use of unspecified macromolecular compounds for preformed parts, e.g. for inserts (use of unspecified rubbers **B29K 621/00**)
- AL M 703/00 Use of resin-bonded materials for preformed parts, e.g. for inserts
- AL M 705/00 Use of metals, their alloys or their compounds, for preformed parts, e.g. for inserts
- AL M 707/00 Use of elements other than metals for preformed parts, e.g. for inserts
- AL M 709/00 Use of inorganic materials not provided for in groups **B29K 703/00-B29K 707/00**, for preformed parts, e.g. for inserts
- AL M 711/00 Use of natural products or their composites, not provided for in groups **B29K 601/00-B29K 709/00**, for preformed parts, e.g. for inserts

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ANNEX 36E B31 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **MAKING PAPER ARTICLES; WORKING PAPER**

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ANNEX 37E B41 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS**

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ANNEX 38E B60L [ Project-Rapporteur : M701/SE ] <CE42>

AL M Title **PROPULSION OF ELECTRICALLY-PROPELLED VEHICLES** (arrangements or mounting of electrical propulsion units or of plural diverse prime-movers for mutual or common propulsion in vehicles **B60K 1/00**, **B60K 6/20**; arrangements or mounting of electrical gearing in vehicles **B60K 17/12**, **B60K 17/14**; preventing wheel slip by reducing power in rail vehicles **B61C 15/08**; dynamo-electric machines **H02K**; control or regulation of electric motors **H02P**) ; **SUPPLYING ELECTRIC POWER FOR AUXILIARY EQUIPMENT OF ELECTRICALLY-PROPELLED VEHICLES** (electric coupling devices combined with mechanical couplings of vehicles **B60D 1/64**; electric heating for vehicles **B60H 1/00**) ; **ELECTRODYNAMIC BRAKE SYSTEMS FOR VEHICLES IN GENERAL** (control or regulation of electric motors **H02P**) ; **MAGNETIC SUSPENSION OR LEVITATION FOR VEHICLES; MONITORING OPERATING VARIABLES OF ELECTRICALLY-PROPELLED VEHICLES; ELECTRIC SAFETY DEVICES FOR ELECTRICALLY-PROPELLED VEHICLES**

CL D Note < Deleted >  
B60L

- CL M 1/00 **Supplying electric power to auxiliary equipment of electrically-propelled vehicles** (arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general **B60Q**)
- CL M 3/00 **Electric devices on electrically-propelled vehicles for safety purposes; Monitoring operating variables, e.g. speed, deceleration, power consumption**
- CL M 3/04 • Cutting-off the power supply under fault conditions
- CL M 5/00 **Current-collectors for power supply lines of electrically-propelled vehicles**
- AL M 7/24 • with additional mechanical or electromagnetic braking
- CL M 9/00 **Electric propulsion with power supply external to vehicle** (**B60L 8/00**, **B60L 13/00** take precedence)
- AL M 11/00 **Electric propulsion with power supplied within the vehicle** (**B60L 8/00**, **B60L 13/00** take precedence; arrangements or mounting of prime-movers consisting of electric motors and internal combustion engines for mutual or common propulsion **B60K 6/20**)
- CL M 13/00 **Electric propulsion for monorail vehicles, suspension vehicles or rack railways; Magnetic suspension or levitation for vehicles**
- CL M 15/00 **Methods, circuits or devices for controlling the propulsion of electrically-propelled vehicles, e.g. their traction-motor speed, to achieve a desired performance; Adaptation of control equipment on electrically-propelled vehicles for remote actuation from a stationary place, from alternative parts of the vehicle or from alternative vehicles of the same vehicle train**

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ANNEX 39E B60R [ Project-Rapporteur : A017/US ] <CE42>

- AL N 21/201 • • • • *Packaging straps or envelopes for inflatable members*
- AL N 21/206 • • • • *in the lower part of dashboards, e.g. for protecting the knees*
- AL M 21/213 • • • • *in vehicle roof frames or pillars*
- AL N 21/214 • • • • *in roof panels*
- AL N 21/215 • • • • *with complex motion of the cover; Retraction under the lining during opening*
- AL N 21/216 • • • • *comprising tether means for limitation of cover motion during deployment*
- AL N 21/215 • • • • *characterised by a tear line for defining a deployment opening*
- AL C 21/217 • • • • *Inflation fluid source retainers, e.g. reaction canisters; Connection of bags, covers, diffusers or inflation fluid sources therewith or together*
- CL M 21/23 • • • Inflatable members (**B60R 21/18** takes precedence)
- AL C 21/231 • • • • *characterised by their shape, construction or spatial configuration*



- AL N 21/232 . . . . . *Curtain-type airbags deploying mainly in a vertical direction from their top edge*
- AL M 21/233 . . . . . *comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other (B60R 21/232 takes precedence)*
- AL N 21/2334 . . . . . *Expansion regulating features*
- AL N 21/2338 . . . . . *Tethers*
- AL N 21/2342 . . . . . *Tear seams*
- AL N 21/2346 . . . . . *Soft diffusers*
- AL N 21/261 . . . . . *with means other than bag structure to diffuse or guide inflation fluid*
- AL N 21/262 . . . . . *Elongated tubular diffusers, e.g. curtain-type*
- AL N 21/263 . . . . . *using a variable source, e.g. plural stage or controlled output (hybrid inflator B60R 21/272)*
- AL M 21/264 . . . . . *using instantaneous generation of gas, e.g. pyrotechnic (B60R 21/268 takes precedence)*
- AL C 21/272 . . . . . *with means for increasing the pressure of the gas just before or during liberation, e.g. hybrid inflators*
- AL N 21/274 . . . . . *characterised by means to rupture or open the fluid source*
- AL N 21/36 . . . . . *using airbags*
- AL N 21/38 . . . . . *using means for lifting bonnets*

**ANNEX 40E B60T [ Project-Rapporteur : M010/IB ] <CE42>**

CL M Subclass  
 index

**IMMOBILISATION**

Portable devices **3/00**

**BRAKING**

Kind of braking and corresponding arrangements **1/00**

Vehicle modifications for cooling brakes **5/00**

Kinds of brake control

initiating means; varying braking force or its distribution according to road or load conditions **7/00; 8/00**

continuous braking **10/00**

transmission of control between initiating means and brakes **11/00, 13/00**

Parts or accessories for fluid-pressure brake control:

valve structure, disposition, and operation	15/00
other parts or accessories	17/00

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**ANNEX 41E B60V [ Project-Rapporteur : M036/IB ] <CE42>**

CL M Title **AIR-CUSHION VEHICLES**

AL M 1/22 · provided with hydrofoils

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**ANNEX 42E B61D [ Project-Rapporteur : M010/IB ] <CE42>**

CL M Subclass  
index

**KINDS OF VEHICLES**

Passenger; goods; tank; mine	1/00; 3/00; 5/00; 11/00
Hopper; tipping	7/00; 9/00
Tramway	13/00
Other	15/00

**BODY DETAILS AND ACCESSORIES**

Details

bodywork: general; doors; steps; windows; movable roofs; loading means	17/00; 19/00; 23/00; 25/00; 39/00; 47/00
interior fittings: sleeping; seating; sanitation; air-conditioning; lighting; other	31/00; 33/00; 35/00; 27/00; 29/00; 37/00
devices using movement of vehicle	43/00
other	49/00

Accessories

signs, ticket-holders	41/00
covers; securing load	39/00; 45/00
other	49/00

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**ANNEX 43E B65B [ Project-Rapporteur : C443/DE ] <CE42>**

CL M Title **MACHINES, APPARATUS OR DEVICES FOR, OR METHODS OF, PACKAGING ARTICLES OR MATERIALS; UNPACKING** (bundling and pressing devices for cigars **A24C 1/44**; paper-bag holders as shop or office accessories **A47F 13/08**; apparatus for coating, e.g. by dipping, **B05C**; devices for tensioning and securing binders adapted to be supported by the article or articles to be bound **B25B**; nailing or stapling devices **B25C**, **B27F**; inserting documents in envelopes and closing the latter **B43M 3/00**, **B43M 5/00**; labelling **B65C**; wrappers, containers or other packaging elements, e.g. binders, closures,

protective caps, **B65D**; transport or storage devices **B65G**; devices for handling sheets or webs of interest apart from their application in packaging machines **B65H**; applying closure members to bottles, jars or similar containers **B67B**; hand- or power-operated devices not attached to, or not incorporated in, containers or container closures for opening closed containers **B67B 7/00**; packaging of matches **C06F**; wrapping sugar during manufacture **C13B 45/02**; packaging of ammunition or explosive charges **F42B 39/00**; making containers or receptacles, see the appropriate subclasses)

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ANNEX 44E B67 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **OPENING OR CLOSING BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING**

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ANNEX 45E B82 [ Project-Rapporteur : C452/US ] <CE42>

CL N Note *In this class, the following terms are used with the meaning indicated:*  
B82

- “nano-size” or “nano-scale” relate to a controlled geometrical size below 100 nanometres (nm) in one or more dimensions; [new.]
- “nano-structure” means an entity having at least one nano-sized functional component that makes physical, chemical or biological properties or effects available, which are uniquely attributable to the nano-scale. [new.]

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ANNEX 46E B82B [ Project-Rapporteur : C452/US ] <CE42>

CL M Title **NANO-STRUCTURES FORMED BY MANIPULATION OF INDIVIDUAL ATOMS, MOLECULES, OR LIMITED COLLECTIONS OF ATOMS OR MOLECULES AS DISCRETE UNITS; MANUFACTURE OR TREATMENT THEREOF**

CL M Note  
B82B

1. This subclass does not cover chemical or biological nano-structures per se, provided for elsewhere, e.g., in classes **C08** or **C12**.
2. Attention is drawn to the Note following the title of class **B82**, which defines the meaning of the terms “nano-size”, “nano-scale” and “nano-structure” in this subclass. [new.]
3. Subject matter classified in this subclass is further classified in subclass **B82Y**, in order to enable a comprehensive search of nano-structure technology using classification symbols of **B82Y** in combination with classification symbols of **B82B**. [new.]
4. Nano-structures having specialised features or functions are further classified in appropriate places in other subclasses that provide for those features or functions, e.g. in **G01Q**, **G02F 1/017**, **H01L 29/775**. [new.]

CL M 1/00 **Nano-structures formed by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units**

CL M 3/00 **Manufacture or treatment of nano-structures by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units**

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ANNEX 47E B82Y [ Project-Rapporteur : C452/US ] <CE42>

CL N *Title* **SPECIFIC USES OR APPLICATIONS OF NANO-STRUCTURES; MEASUREMENT OR ANALYSIS OF NANO-STRUCTURES; MANUFACTURE OR TREATMENT OF NANO-STRUCTURES**

- CL N *Note*  
B82Y
1. *This subclass covers applications and aspects of nano-structures which are produced by any method, and is not restricted to those that are formed by manipulation of individual atoms or molecules. [new.]*
  2. *Attention is drawn to the Note following the title of class B82, which defines the meaning of the terms "nano-size", "nano-scale" and "nano-structure" in this subclass. [new.]*
  3. *This subclass is intended to enable a comprehensive search of subject matter related to nano-structures by combination of classification symbols of this subclass with classification symbols from other subclasses. Therefore this subclass covers aspects of nano-structures that might also be entirely or partially covered elsewhere in the IPC. [new.]*
  4. *This subclass is for secondary classification, i.e. obligatory supplementary classification of subject matter already classified as such in other classification places, e.g.: [new.]*

**B82B** *Nano-structures formed by individual manipulation of atoms, molecules, or limited collections of atoms or molecules as discrete units; manufacture or treatment thereof*

**A61K 9/51** *Nano-capsules for medicinal preparations*

**B05D 1/20** *Langmuir-Blodgett films*

**C01B 31/02** *Carbon nano-structures, e.g. bucky-balls, nanotubes, nanocoils, nano-doughnuts or nano-onions*

**G01Q** *Scanning probe techniques*

**G02F 1/017** *Optical quantum wells or boxes*

**H01F 10/32** *Nano-structured thin magnetic films*

**H01F 41/30** *Molecular beam epitaxy [MBE]*

**H01L 29/775** *Quantum wire FETs*

5. *The classification symbols of this subclass are not listed first when assigned to patent documents. [new.]*
6. *In this subclass, multi-aspects classification is applied, so that aspects of subject matter that are covered by more than one of its groups should be classified in each of those groups. [new.]*

CL N 5/00 **Nano-biotechnology or nano-medicine, e.g. protein engineering or drug delivery**

- CL N 10/00 *Nano-technology for information processing, storage or transmission, e.g. quantum computing or single electron logic*
- CL N 15/00 *Nano-technology for interacting, sensing or actuating, e.g. quantum dots as markers in protein assays or molecular motors*
- CL N 20/00 *Nano-optics, e.g. quantum optics or photonic crystals*
- CL N 25/00 *Nano-magnetism, e.g. magnetoimpedance, anisotropic magnetoresistance, giant magnetoresistance or tunneling magnetoresistance*
- CL N 30/00 *Nano-technology for materials or surface science, e.g. nano-composites*
- CL N 35/00 *Methods or apparatus for measurement or analysis of nano-structures*
- CL N 40/00 *Manufacture or treatment of nano-structures*
- CL N 99/00 *Subject matter not provided for in other groups of this subclass*
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ANNEX 48E C01 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **INORGANIC CHEMISTRY**

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ANNEX 49E C01B [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **NON-METALLIC ELEMENTS; COMPOUNDS THEREOF** (fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide **C12P 3/00**; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis **C25B**)

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ANNEX 50E C01B [ Project-Rapporteur : M038/IB ] <CE42>

- AL M 3/00 **Hydrogen; Gaseous mixtures containing hydrogen; Separation of hydrogen from mixtures containing it; Purification of hydrogen** (production of water-gas or synthesis gas from solid carbonaceous material **C10J**)
- AL M 3/22 · · by decomposition of gaseous or liquid organic compounds
- CL M 4/00 **Hydrogen isotopes; Inorganic compounds thereof prepared by isotope exchange, e.g.  $\text{NH}_3 + \text{D}_2 \rightarrow \text{NH}_2\text{D} + \text{HD}$**
- CL M 6/00 **Hydrides of metals; Monoborane or diborane; Addition complexes thereof**
- CL M 7/00 **Halogens; Halogen acids**
- CL M 19/00 **Selenium; Tellurium; Compounds thereof**

- AL M 21/06 • Binary compounds of nitrogen with metals, with silicon, or with boron
- AL M 25/234 • • • Purification; Stabilisation; Concentration (purification concomitant with preparation **C01B 25/22**)
- AL M 25/46 • • Preparation involving solvent-solvent extraction
- AL M **31/00 Carbon; Compounds thereof** (**C01B 21/00**, **C01B 23/00** take precedence; percarbonates **C01B 15/10**; carbon black **C09C 1/48**)
- AL M 31/14 • • Granulation
- AL M 31/18 • Carbon monoxide
- AL M 31/30 • Carbides
- AL M 33/06 • Metal silicides
- AL M 33/18 • • • Preparation of finely divided silica neither in sol nor in gel form; After-treatment thereof (treatment to enhance the pigmenting or filling properties **C09C**)
- AL M 33/36 • • having base-exchange properties but not having molecular sieve properties
- AL M 33/46 • • • Amorphous silicates, e.g. so-called "amorphous zeolites"
- CL M **35/00 Boron; Compounds thereof** (monoborane, diborane, metal borohydrides or addition complexes thereof **C01B 6/00**; perborates **C01B 15/12**; binary compounds with nitrogen **C01B 21/06**; phosphides **C01B 25/08**; carbides **C01B 31/36**)
- CL M **39/00 Compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites; Their preparation; After-treatment, e.g. ion-exchange or dealumination** (treatment to modify the sorption properties, e.g. shaping using a binder, **B01J 20/10**; treatment to modify the catalytic properties, e.g. combination of treatments to make the zeolites appropriate to their use as a catalyst, **B01J 29/04**; treatment to improve the ion-exchange properties **B01J 39/14**)

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ANNEX 51E C01C [ Project-Rapporteur : M035/IB ] <CE42>

- CL M Title **AMMONIA; CYANOGEN; COMPOUNDS THEREOF** (salts of oxyacids of halogens **C01B 11/00**; peroxides, salts of peroxyacids **C01B 15/00**; thiosulfates, dithionites, polythionates **C01B 17/64**; compounds containing selenium or tellurium **C01B 19/00**; azides **C01B 21/08**; metal amides **C01B 21/092**; nitrites **C01B 21/50**; phosphides **C01B 25/08**; salts of oxyacids of phosphorus **C01B 25/16**; compounds containing silicon **C01B 33/00**; compounds containing boron **C01B 35/00**; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide **C12P 3/00**; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis **C25B**)
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ANNEX 52E C01C [ Project-Rapporteur : M038/IB ] <CE42>

AL M 3/16 · Cyanamide; Salts thereof

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ANNEX 53E C01D [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **COMPOUNDS OF ALKALI METALS, i.e. LITHIUM, SODIUM, POTASSIUM, RUBIDIUM, CAESIUM, OR FRANCIUM** (metal hydrides **C01B 6/00**; salts of oxyacids of halogens **C01B 11/00**; peroxides, salts of peroxyacids **C01B 15/00**; sulfides or polysulfides **C01B 17/22**; thiosulfates, dithionites, polythionates **C01B 17/64**; compounds containing selenium or tellurium **C01B 19/00**; binary compounds of nitrogen with metals **C01B 21/06**; azides **C01B 21/08**; metal amides **C01B 21/092**; nitrites **C01B 21/50**; phosphides **C01B 25/08**; salts of oxyacids of phosphorus **C01B 25/16**; carbides **C01B 31/30**; compounds containing silicon **C01B 33/00**; compounds containing boron **C01B 35/00**; cyanides **C01C 3/08**; salts of cyanic acid **C01C 3/14**; salts of cyanamide **C01C 3/16**; thiocyanates **C01C 3/20**; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide **C12P 3/00**; obtaining metal compounds from mixtures, e.g. ores, which are intermediate compounds in a metallurgical process for obtaining a free metal **C22B**; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis **C25B**)

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ANNEX 54E C01F [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **COMPOUNDS OF THE METALS BERYLLIUM, MAGNESIUM, ALUMINIUM, CALCIUM, STRONTIUM, BARIUM, RADIUM, THORIUM, OR OF THE RARE-EARTH METALS** (metal hydrides **C01B 6/00**; salts of oxyacids of halogens **C01B 11/00**; peroxides, salts of peroxyacids **C01B 15/00**; sulfides or polysulfides of magnesium, calcium, strontium, or barium **C01B 17/42**; thiosulfates, dithionites, polythionates **C01B 17/64**; compounds containing selenium or tellurium **C01B 19/00**; binary compounds of nitrogen with metals **C01B 21/06**; azides **C01B 21/08**; metal amides **C01B 21/092**; nitrites **C01B 21/50**; phosphides **C01B 25/08**; salts of oxyacids of phosphorus **C01B 25/16**; carbides **C01B 31/30**; compounds containing silicon **C01B 33/00**; compounds containing boron **C01B 35/00**; compounds having molecular sieve properties but not having base-exchange properties **C01B 37/00**; compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites, **C01B 39/00**; cyanides **C01C 3/08**; salts of cyanic acid **C01C 3/14**; salts of cyanamide **C01C 3/16**; thiocyanates **C01C 3/20**; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide **C12P 3/00**; obtaining metal compounds from mixtures, e.g. ores, which are intermediate compounds in a metallurgical process for obtaining a free metal **C22B**; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis **C25B**)

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**ANNEX 55E C01G [ Project-Rapporteur : M035/IB ] <CE42>**

**CL M Title COMPOUNDS CONTAINING METALS NOT COVERED BY SUBCLASSES C01D OR C01F** (metal hydrides **C01B 6/00**; salts of oxyacids of halogens **C01B 11/00**; peroxides, salts of peroxyacids **C01B 15/00**; thiosulfates, dithionites, polythionates **C01B 17/64**; compounds containing selenium or tellurium **C01B 19/00**; binary compounds of nitrogen with metals **C01B 21/06**; azides **C01B 21/08**; metal amides **C01B 21/092**; nitrites **C01B 21/50**; phosphides **C01B 25/08**; salts of oxyacids of phosphorus **C01B 25/16**; carbides **C01B 31/30**; compounds containing silicon **C01B 33/00**; compounds containing boron **C01B 35/00**; compounds having molecular sieve properties but not having base-exchange properties **C01B 37/00**; compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites, **C01B 39/00**; cyanides **C01C 3/08**; salts of cyanic acid **C01C 3/14**; salts of cyanamide **C01C 3/16**; thiocyanates **C01C 3/20**; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide **C12P 3/00**; obtaining metal compounds from mixtures, e.g. ores, which are intermediate compounds in a metallurgical process for obtaining a free metal **C21B, C22B**; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis **C25B**)

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**ANNEX 56E C02 [ Project-Rapporteur : M035/IB ] <CE42>**

**CL M Title TREATMENT OF WATER, WASTE WATER, SEWAGE, OR SLUDGE**

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**ANNEX 57E C02F [ Project-Rapporteur : M035/IB ] <CE42>**

**CL M Title TREATMENT OF WATER, WASTE WATER, SEWAGE, OR SLUDGE** (processes for making harmful chemical substances harmless, or less harmful, by effecting a chemical change in the substances **A62D 3/00**; separation, settling tanks or filter devices **B01D**; special arrangements on waterborne vessels of installations for treating water, waste water or sewage, e.g. for producing fresh water, **B63J**; adding materials to water to prevent corrosion **C23F**; treating radioactively-contaminated liquids **G21F 9/04**)

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**ANNEX 58E C02F [ Project-Rapporteur : M038/IB ] <CE42>**

CL M 1/02 • by heating

CL M 1/20 • by degassing, i.e. liberation of dissolved gases

CL M 1/40 • Devices for separating or removing fatty or oily substances or similar floating material (cleaning or keeping clear the surface of open water from oil or like materials **E02B 15/04**; devices in sewers for separating liquid or solid substances from sewage **E03F 5/14**)

CL M 1/42 • by ion-exchange



CL M 1/68 · by addition of specified substances, e.g. trace elements, for ameliorating potable water

CL M 3/10 · · Packings; Fillings; Grids

CL M 11/06 · by oxidation

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ANNEX 59E C04 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **CEMENTS; CONCRETE; ARTIFICIAL STONE; CERAMICS; REFRACTORIES**

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ANNEX 60E C04B [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **LIME; MAGNESIA; SLAG; CEMENTS; COMPOSITIONS THEREOF, e.g. MORTARS, CONCRETE OR LIKE BUILDING MATERIALS; ARTIFICIAL STONE; CERAMICS (devitrified glass-ceramics C03C 10/00) ; REFRACTORIES (alloys based on refractory metals C22C) ; TREATMENT OF NATURAL STONE**

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ANNEX 61E C05 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **FERTILISERS; MANUFACTURE THEREOF**

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ANNEX 62E C06B [ Project-Rapporteur : M038/IB ] <CE42>

CL M Title **EXPLOSIVE OR THERMIC COMPOSITIONS (blasting F42D) ; MANUFACTURE THEREOF; USE OF SINGLE SUBSTANCES AS EXPLOSIVES**

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ANNEX 63E C06C [ Project-Rapporteur : D201/EP ] <CE42>

CL M Title **DETONATING OR PRIMING DEVICES; FUSES; CHEMICAL LIGHTERS; PYROPHORIC COMPOSITIONS**

CL M 15/00 **Pyrophoric compositions; Flints** (chemical lighters C06C 9/00)

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ANNEX 64E C06D [ Project-Rapporteur : D202/EP ] <CE42>

CL M Title **MEANS FOR GENERATING SMOKE OR MIST; GAS-ATTACK COMPOSITIONS; GENERATION OF GAS FOR BLASTING OR PROPULSION (CHEMICAL PART)**

CL M 3/00 **Generation of smoke or mist (chemical part)** (compositions used as biocides, pest repellants or attractants, or plant growth regulators [A01N 25/18](#))

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ANNEX 65E C06F [ Project-Rapporteur : D203/EP ] <CE42>

AL M 1/02 · Cutting match splints

AL M 1/06 · Dipping, coating, impregnating, or drying of matches

AL M 1/12 · Filling matches into boxes

CL M 3/00 **Chemical features in the manufacture of matches**

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ANNEX 66E C07 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **ORGANIC CHEMISTRY**

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ANNEX 67E C07B [ Project-Rapporteur : M101/SE ] <CE42>

CL M Title **GENERAL METHODS OF ORGANIC CHEMISTRY; APPARATUS THEREFOR** (preparation of carboxylic acid esters by telomerisation [C07C 67/47](#); processes for preparing macromolecular compounds, e.g. telomerisation [C08F](#), [C08G](#))

- CL M Note C07B
1. In this subclass, a functional group which is already present in some residue being introduced and is not substantially involved in a chemical reaction, is not considered as the functional group which is formed or introduced as a result of the chemical reaction. [4]
  2. In this subclass, the following term is used with the meaning indicated:
    - "separation" means separation only for the purposes of recovering organic compounds. [4]
  3. When classifying in this subclass, classification is also made in group [B01D 15/08](#) insofar as subject matter of general interest relating to chromatography is concerned. [8]
  4. In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place according to the type of reaction employed, noting the bond or the functional group which is formed or introduced as a result of

the chemical reaction. [4]

CL M Subclass  
index

REDUCTION IN GENERAL	31/00
OXIDATION IN GENERAL	33/00
REACTIONS WITHOUT FORMATION OR INTRODUCTION OF FUNCTIONAL GROUPS CONTAINING HETERO ATOMS	
Change of bond type between carbon atoms already directly linked	35/00
Formation of new or disconnection of existing carbon- to-carbon bonds	37/00
REACTIONS WITH FORMATION OR INTRODUCTION OF FUNCTIONAL GROUPS CONTAINING HETERO ATOMS	
Halogenation	39/00
Oxygen-containing groups	41/00
Nitrogen-containing groups	43/00
Sulfur-containing groups	45/00
Other groups	47/00
GRIGNARD REACTIONS	49/00
INTRODUCTION OF PROTECTING OR ACTIVATING GROUPS NOT COVERED BY THE PRECEDING GROUPS	51/00
ASYMMETRIC SYNTHESSES	53/00
RACEMISATION, INVERSION	55/00
SEPARATION, PURIFICATION, STABILISATION, USE OF ADDITIVES	57/00, 63/00
INTRODUCTION OF ISOTOPES	59/00
GENERATION OF ORGANIC FREE RADICALS	60/00
OTHER GENERAL METHODS	61/00

CL M 57/00 **Separation of optically-active organic compounds**

CL N 60/00 *Generation of organic free radicals*

AL D 61/02 (transferred to **C07B 60/00** )

CL M 63/00 **Purification; Separation specially adapted for the purpose of recovering organic compounds** (separation of optically-active organic compounds **C07B 57/00**) ;  
**Stabilisation; Use of additives**

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ANNEX 68E C07G [ Project-Rapporteur : C455/EP ] <CE42>

CL C 1/00 *Low-molecular-weight derivatives of lignin (high-molecular-weight derivatives of lignin C08H 7/00)*

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ANNEX 69E C07H [ Project-Rapporteur : M038/IB ] <CE42>

CL M 11/00 **Compounds containing saccharide radicals esterified by inorganic acids; Metal salts thereof** (halo-sugars C07H 5/02; thio-, seleno-, or telluro-sugars C07H 5/08)

AL M 11/04 · Phosphates; Phosphites; Polyphosphates

AL M 15/08 · · · Polyoxyalkylene derivatives

AL M 15/24 · · Condensed ring systems having three or more rings

AL M 19/207 · · · · the phosphoric or polyphosphoric acids being esterified by a further hydroxylic compound, e.g. flavine-adenine dinucleotide or nicotinamide-adenine dinucleotide

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ANNEX 70E C07J [ Project-Rapporteur : M038/IB ] <CE42>

CL M 17/00 **Normal steroids containing carbon, hydrogen, halogen, or oxygen, having an oxygen-containing hetero ring not condensed with the cyclopenta[a]hydrophenanthrene skeleton**

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ANNEX 71E C08 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON**

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ANNEX 72E C08H [ Project-Rapporteur : C455/EP ] <CE42>

CL N 7/00 *Lignin; Modified lignin; High-molecular-weight products derived therefrom (low-molecular-weight derivatives of lignin C07G 1/00)*

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ANNEX 73E C08K [ Project-Rapporteur : D100/DE ] <CE42>

CL M Title **USE OF INORGANIC OR NON-MACROMOLECULAR ORGANIC SUBSTANCES AS COMPOUNDING INGREDIENTS** (paints, inks, varnishes, dyes, polishes, adhesives C09)

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**ANNEX 74E C09F [ Project-Rapporteur : D200/EP ] <CE42>**

AL M 1/04 · Chemical modification, e.g. esterification

CL M 5/00 **Obtaining drying-oils**

CL M 7/00 **Chemical modification of drying-oils** (factice **C08H**)

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**ANNEX 75E C09J [ Project-Rapporteur : D095/GB ] <CE42>**

CL M **Title 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**; adhesives on the basis of non specified organic macromolecular compounds used as bonding agents in layered products **B32B**; labelling fabrics or comparable materials or articles with deformable surface using adhesives and thermo-activatable adhesives respectively **B65C 5/02**, **B65C 5/04**; preparation of glue or gelatine **C09H**; adhesive labels, tag tickets or similar identification of indication means **G09F 3/10**)

CL M 5/00 **Adhesive processes in general; Adhesive processes not provided for elsewhere, e.g. relating to primers**

CL M 189/00 **Adhesives based on proteins; Adhesives based on derivatives thereof**

CL M 191/00 **Adhesives based on oils, fats or waxes; Adhesives based on derivatives thereof**

CL M 193/00 **Adhesives based on natural resins; Adhesives based on derivatives thereof** (based on polysaccharides **C09J 101/00-C09J 105/00**; based on natural rubber **C09J 107/00**)

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**ANNEX 76E C10B [ Project-Rapporteur : D204/GB ] <CE42>**

AL M 45/02 · Devices for producing compact unified coal charges outside the oven

AL M 57/08 · Non-mechanical pretreatment of the charge

AL M 57/18 · Modifying the properties of the distillation gases in the oven

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**ANNEX 77E C10C [ Project-Rapporteur : D205/GB ] <CE42>**

CL M **Title WORKING-UP TAR, PITCH, ASPHALT, BITUMEN; PYROLIGNEOUS ACID**

CL M 1/00 **Working-up tar** (obtaining hydrocarbon oils **C10G**)

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ANNEX 78E C10F [ Project-Rapporteur : D206/GB ] <CE42>

CL M 5/00 **Drying or de-watering peat**

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ANNEX 79E C10G [ Project-Rapporteur : D207/GB ] <CE42>

CL M Title **CRACKING HYDROCARBON OILS; PRODUCTION OF LIQUID HYDROCARBON MIXTURES, e.g. BY DESTRUCTIVE HYDROGENATION, OLIGOMERISATION, POLYMERISATION** (cracking to hydrogen or synthesis gas **C01B**; cracking or pyrolysis of hydrocarbon gases to individual hydrocarbons or mixtures thereof of definite or specified constitution **C07C**; cracking to cokes **C10B**) ; **RECOVERY OF HYDROCARBON OILS FROM OIL-SHALE, OIL-SAND, OR GASES; REFINING MIXTURES MAINLY CONSISTING OF HYDROCARBONS; REFORMING OF NAPHTHA; MINERAL WAXES**

AL M 1/02 · by distillation

CL M 3/00 **Production of liquid hydrocarbon mixtures from oxygen-containing organic materials, e.g. fatty oils, fatty acids** (production from non-melting solid oxygen-containing carbonaceous materials **C10G 1/00**)

CL M 7/00 **Distillation of hydrocarbon oils**

AL M 7/12 · Controlling or regulating

CL M 21/00 **Refining of hydrocarbon oils, in the absence of hydrogen, by extraction with selective solvents** (**C10G 17/00, C10G 19/00** take precedence)

AL M 21/30 · Controlling or regulating

AL M 33/08 · Controlling or regulating

AL M 35/24 · Controlling or regulating of reforming operations

AL M 45/68 · · Aromatisation of hydrocarbon oil fractions

AL M 45/72 · Controlling or regulating

AL M 47/36 · Controlling or regulating

AL M 49/26 · Controlling or regulating

CL M 50/00 **Production of liquid hydrocarbon mixtures from lower carbon number hydrocarbons, e.g. by oligomerisation**

AL M 53/06 · · · including only extraction steps, e.g. deasphalting by solvent treatment followed by extraction of aromatics

AL M 71/00 **Treatment by methods not otherwise provided for of hydrocarbon oils or fatty oils for lubricating purposes**

AL M 73/34 · · Controlling or regulating

CL M 75/00 **Inhibiting corrosion or fouling in apparatus for treatment or conversion of hydrocarbon oils, in general** (C10G 7/10, C10G 9/16 take precedence)

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ANNEX 80E C10H [ Project-Rapporteur : D208/GB ] <CE42>

CL M Title **PRODUCTION OF ACETYLENE BY WET METHODS**

CL M 1/00 **Acetylene gas generators with dropwise, gravity, non-automatic water feed**

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ANNEX 81E C10K [ Project-Rapporteur : D209/GB ] <CE42>

AL M 1/08 · by washing with liquids; Reviving the used wash liquors

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ANNEX 82E C11 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **ANIMAL OR VEGETABLE OILS, FATS, FATTY SUBSTANCES OR WAXES; FATTY ACIDS THEREFROM; DETERGENTS; CANDLES**

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ANNEX 83E C12H [ Project-Rapporteur : D199/EP ] <CE42>

CL M 3/00 **Removal of alcohol from alcoholic beverages to obtain alcohol-free or low-alcohol beverages** (recovery of by-products of wine or beer other than low-alcohol beverages C12F 3/06; preparation of alcoholic beverages other than wine or beer by varying the composition of fermented solutions C12G 3/08)

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ANNEX 84E C12N [ Project-Rapporteur : D039/EP ] <CE42>

CL M Title **MICRO-ORGANISMS OR ENZYMES; COMPOSITIONS THEREOF** (biocides, pest repellants or attractants, or plant growth regulators containing micro-organisms, viruses, microbial fungi, enzymes, fermentates, or substances produced by, or extracted from, micro-organisms or animal material A01N 63/00; medicinal preparations A61K; fertilisers C05F) ; **PROPAGATING, PRESERVING, OR MAINTAINING MICRO-ORGANISMS; MUTATION OR GENETIC ENGINEERING; CULTURE MEDIA** (microbiological testing media C12Q 1/00)

CL M 1/12 · Unicellular algae; Culture media therefor (as new plants **A01H 13/00**)

CL M 9/00 **Enzymes, e.g. ligases (6.); Proenzymes; Compositions thereof** (preparations containing enzymes for cleaning teeth **A61K 8/66**, **A61Q 11/00**; medicinal preparations containing enzymes or proenzymes **A61K 38/43**; enzyme containing detergent compositions **C11D**); **Processes for preparing, activating, inhibiting, separating, or purifying enzymes**

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ANNEX 85E C13 [ Project-Rapporteur : C443/DE ] <CE42>

CL M Title **SUGAR INDUSTRY**

- CL M Note C13
1. In class **C13**, the following terms or expressions are used with the meanings indicated:
    - *"sugars" are a class of edible, water-soluble crystalline carbohydrates, having a characteristic sweet taste, including mono-, di- and oligosaccharides, e.g. sucrose, lactose and fructose. A more specific meaning of the term "sugar" is defined in the note of subclass **C13B**. [new.]*
  2. Processes using enzymes or micro-organisms in order:
    - i. to liberate, separate or purify a pre-existing compound or composition, or
    - ii. to treat textiles or clean solid surfaces of materials

are further classified in subclass **C12S**. [5]

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ANNEX 86E C13B [ Project-Rapporteur : C443/DE ] <CE42>

CL N Title **PRODUCTION OF SUCROSE; APPARATUS SPECIALLY ADAPTED THEREFOR** (chemically synthesised sugars or sugar derivatives **C07H**; fermentation or enzyme-using processes for preparing compounds containing saccharide radicals **C12P 19/00**)

- CL N Note C13B
- In subclass **C13B**, the following terms or expressions are used with the meanings indicated:*
- *"sugar" is used in its non-scientific meaning and refers to sucrose, also called "table sugar" or "saccharose", a white crystalline disaccharide; [new.]*
  - *"sugar juices" are solutions of sugar, essentially comprising sucrose, which are derived from different plants, e.g. beet, cane or maple; [new.]*
  - *"syrups" are highly concentrated sugar juices. [new.]*

CL N 5/00 **Reducing the size of material from which sugar is to be extracted** (for extraction of starch **C08B 30/02**)

AL N 5/02 · Cutting sugar cane

AL N 5/04 · · Shredding sugar cane

AL N 5/06 · Slicing sugar beet



- AL N 5/08 • *Knives; Adjustment or maintenance thereof*
- CL N **10/00 Production of sugar juices** (*tapping of tree-juices [A01G 23/10](#); tapping-spouts, receptacles for juices [A01G 23/14](#)*)
- AL N 10/02 • *Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum*
- AL N 10/04 • • *combined with imbibition*
- AL N 10/06 • • *Sugar-cane crushers*
- AL N 10/08 • *Extraction of sugar from sugar beet with water*
- AL N 10/10 • • *Continuous processes*
- AL N 10/12 • • *Details of extraction apparatus, e.g. arrangements of pipes or valves*
- AL N 10/14 • *using extracting agents other than water, e.g. alcohol or salt solutions*
- CL N **15/00 Expressing water from material from which sugar has been extracted** (*from starch-extracted material [C08B 30/10](#)*)
- AL N 15/02 • *between perforated moving belts*
- CL N **20/00 Purification of sugar juices**
- CL N *Note* *When classifying in this group, classification is also made in group [B01D 15/08](#) insofar as 20/00 subject matter of general interest relating to chromatography is concerned. [new.]*
- AL N 20/02 • *using alkaline earth metal compounds*
- AL N 20/04 • • *followed by saturation*
- AL N 20/06 • • • *with carbon dioxide or sulfur dioxide*
- AL N 20/08 • *by oxidation or reduction*
- AL N 20/10 • • *using sulfur dioxide or sulfites*
- AL N 20/12 • *using adsorption agents, e.g. active carbon*
- AL N 20/14 • *using ion-exchange materials*
- AL N 20/16 • *by physical means, e.g. osmosis or filtration*
- AL N 20/18 • *by electrical means*
- CL N **25/00 Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices**
- AL N 25/02 • *Details, e.g. for preventing foaming or for catching juice*

- AL N 25/04 • • *Heating equipment*
- AL N 25/06 • *combined with measuring instruments for effecting control of the process*
- CL N **30/00** *Crystallisation; Crystallising apparatus; Separating crystals from mother liquors*
- AL N 30/02 • *Crystallisation; Crystallising apparatus*
- AL N 30/04 • *Separating crystals from mother liquor*
- AL N 30/06 • • *by centrifugal force*
- AL N 30/08 • • *Washing residual mother liquor from crystals*
- AL N 30/10 • • • *in centrifuges*
- AL N 30/12 • • *Recycling mother liquor or wash liquors*
- AL N 30/14 • • *Dissolving or refining raw sugar*
- CL N **35/00** *Extraction of sucrose from molasses*
- AL N 35/02 • *by chemical means*
- AL N 35/04 • • *by precipitation as alkaline earth metal saccharates*
- AL N 35/06 • • *using ion exchange*
- AL N 35/08 • *by physical means, e.g. osmosis*
- CL N **40/00** *Drying sugar*
- CL N **45/00** *Cutting machines specially adapted for sugar*
- CL N 45/02 • *in combination with sorting and packing machines*
- CL N **50/00** *Sugar products, e.g. powdered, lump or liquid sugar; Working-up of sugar (C13B 40/00, C13B 45/00 take precedence; confectionery A23G 3/00)*
- AL N 50/02 • *formed by moulding sugar*
- CL N **99/00** *Subject matter not provided for in other groups of this subclass*
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ANNEX 87E C13C [ Project-Rapporteur : C443/DE ] <CE42>

- CL D Title (transferred to **C13B** )
- CL D 1/00 (transferred to **C13B 5/00** )

AL D 1/02 (transferred to **C13B 5/02** )  
AL D 1/04 (transferred to **C13B 5/04** )  
AL D 1/06 (transferred to **C13B 5/06** )  
AL D 1/08 (transferred to **C13B 5/08** )  
CL D 3/00 (transferred to **C13B 15/00** )  
AL D 3/02 (transferred to **C13B 15/02** )

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**ANNEX 88E C13D [ Project-Rapporteur : C443/DE ] <CE42>**

CL D Title (transferred to **C13B** )  
CL D 1/00 (transferred to **C13B 10/00** )  
AL D 1/02 (transferred to **C13B 10/02** )  
AL D 1/04 (transferred to **C13B 10/04** )  
AL D 1/06 (transferred to **C13B 10/06** )  
AL D 1/08 (transferred to **C13B 10/08** )  
AL D 1/10 (transferred to **C13B 10/10** )  
AL D 1/12 (transferred to **C13B 10/12** )  
AL D 1/14 (transferred to **C13B 10/14** )  
CL D 3/00 (transferred to **C13B 20/00** )  
CL D Note < Deleted >  
3/00  
AL D 3/02 (transferred to **C13B 20/02** )  
AL D 3/04 (transferred to **C13B 20/04** )  
AL D 3/06 (transferred to **C13B 20/06** )  
AL D 3/08 (transferred to **C13B 20/08** )  
AL D 3/10 (transferred to **C13B 20/10** )  
AL D 3/12 (transferred to **C13B 20/12** )

AL D 3/14 (transferred to [C13B 20/14](#) )

AL D 3/16 (transferred to [C13B 20/16](#) )

AL D 3/18 (transferred to [C13B 20/18](#) )

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**ANNEX 89E C13F [ Project-Rapporteur : C443/DE ] <CE42>**

CL D Title (transferred to [C13B](#) )

CL D 1/00 (transferred to [C13B 25/00](#) )

AL D 1/02 (transferred to [C13B 30/02](#) )

AL D 1/04 (transferred to [C13B 30/04](#) )

AL D 1/06 (transferred to [C13B 30/06](#) )

AL D 1/08 (transferred to [C13B 30/08](#) )

AL D 1/10 (transferred to [C13B 30/10](#) )

AL D 1/12 (transferred to [C13B 30/12](#) )

AL D 1/14 (transferred to [C13B 30/14](#) )

CL D 3/00 (transferred to [C13B 50/00](#) )

AL D 3/02 (transferred to [C13B 50/02](#) )

CL D 5/00 (transferred to [C13B 40/00](#) )

CL D 99/00 (transferred to [C13B 99/00](#) )

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**ANNEX 90E C13G [ Project-Rapporteur : C443/DE ] <CE42>**

CL D Title (transferred to [C13B](#) )

CL D 1/00 (transferred to [C13B 25/00](#) )

AL D 1/02 (transferred to [C13B 25/04](#) )

AL D 1/04 (transferred to [C13B 25/02](#) )

AL D 1/06 (transferred to [C13B 25/06](#) )

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**ANNEX 91E C13H [ Project-Rapporteur : C443/DE ] <CE42>**

- CL D Title (transferred to [C13B](#) )
  - CL D 1/00 (transferred to [C13B 45/02](#) )
  - CL D 3/00 (transferred to [C13B 45/00](#) )
- 

**ANNEX 92E C13J [ Project-Rapporteur : C443/DE ] <CE42>**

- CL D Title (transferred to [C13B](#) )
  - CL D 1/00 (transferred to [C13B 35/00](#) )
  - AL D 1/02 (transferred to [C13B 35/02](#) )
  - AL D 1/04 (transferred to [C13B 35/04](#) )
  - AL D 1/06 (transferred to [C13B 35/06](#) )
  - AL D 1/08 (transferred to [C13B 35/08](#) )
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**ANNEX 93E C13K [ Project-Rapporteur : C443/DE ] <CE42>**

- CL M Title **SACCHARIDES, OTHER THAN SUCROSE, OBTAINED FROM NATURAL SOURCES OR BY HYDROLYSIS OF NATURALLY OCCURRING DI-, OLIGO- OR POLYSACCHARIDES** (chemically synthesised sugars or sugar derivatives [C07H](#); polysaccharides, e.g. starch, derivatives thereof [C08B](#); malt [C12C](#); fermentation or enzyme-using processes for preparing compounds containing saccharide radicals [C12P 19/00](#))
  - AL M 1/02 • obtained by saccharification of cellulosic materials (manufacture of fodder [A23K 1/12](#))
  - AL M 1/06 • obtained by saccharification of starch or raw materials containing starch
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**ANNEX 94E C14B [ Project-Rapporteur : D197/DE ] <CE42>**

- CL M Title **MECHANICAL TREATMENT OR PROCESSING OF SKINS, HIDES, OR LEATHER IN GENERAL; PELT-SHEARING MACHINES; INTESTINE-SPLITTING MACHINES** (mechanical cleaning of hides or the like [D06G](#))
- AL M 1/26 • Leather tensioning or stretching frames; Stretching-machines; Setting-out boards; Pasting boards (fastening devices [C14B 17/08](#))

AL M 1/56 · · Ornamenting, producing designs, embossing

AL M 1/60 · · Pasting processes (chemical aspects **C14C 7/00**)

CL M **5/00 Clicking, perforating, or cutting leather** (for shoe parts, e.g. soles, **A43D**)

CL M **11/00 Finishing the edges of leather pieces, e.g. by folding, by burning**

CL M **13/00 Shredding hides or leather**

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ANNEX 95E C14C [ Project-Rapporteur : D198/DE ] <CE42>

CL M Title **CHEMICAL TREATMENT OF SKINS, HIDES OR LEATHER, e.g. TANNING, IMPREGNATING, FINISHING; APPARATUS THEREFOR; COMPOSITIONS FOR TANNING** (bleaching of leather or furs **D06L**; dyeing of leather or furs **D06P**)

CL M **13/00 Manufacture of special kinds of leather, e.g. vellum**

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ANNEX 96E C22 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **METALLURGY; FERROUS OR NON-FERROUS ALLOYS; TREATMENT OF ALLOYS OR NON-FERROUS METALS**

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ANNEX 97E C22B [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **PRODUCTION OR REFINING OF METALS** (making metallic powder or suspensions thereof **B22F 9/00**; production of metals by electrolysis or electrophoresis **C25**); **PRETREATMENT OF RAW MATERIALS**

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ANNEX 98E C22F [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **CHANGING THE PHYSICAL STRUCTURE OF NON-FERROUS METALS OR NON-FERROUS ALLOYS** (general methods or devices for heat treatment of ferrous or non-ferrous metals or alloys **C21D**; surface treatment of metallic material involving at least one process provided for in class **C23** and at least one process covered by this subclass **C23F 17/00**)

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ANNEX 99E C23 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL; CHEMICAL SURFACE TREATMENT; DIFFUSION TREATMENT OF METALLIC MATERIAL; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL; INHIBITING CORROSION OF METALLIC MATERIAL OR INCRUSTATION IN GENERAL**

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ANNEX 100E C23C [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL; SURFACE TREATMENT OF METALLIC MATERIAL BY DIFFUSION INTO THE SURFACE, BY CHEMICAL CONVERSION OR SUBSTITUTION; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL** (applying liquids or other fluent materials to surfaces in general **B05**; making metal-coated products by extrusion **B21C 23/22**; covering with metal by connecting pre-existing layers to articles, see the relevant places, e.g. **B21D 39/00**, **B23K**; working of metal by the action of a high concentration of electric current on a workpiece using an electrode **B23H**; metallising of glass **C03C**; metallising mortars, concrete, artificial stone, ceramics or natural stone **C04B 41/00**; paints, varnishes, lacquers **C09D**; enamelling of, or applying a vitreous layer to, metals **C23D**; inhibiting corrosion of metallic material or incrustation in general **C23F**; treating metal surfaces or coating of metals by electrolysis or electrophoresis **C25D**, **C25F**; single-crystal film growth **C30B**; by metallising textiles **D06M 11/83**; decorating textiles by locally metallising **D06Q 1/04**; details of scanning-probe apparatus, in general **G01Q**; manufacture of semiconductor devices **H01L**; manufacture of printed circuits **H05K**)

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ANNEX 101E C23F [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **NON-MECHANICAL REMOVAL OF METALLIC MATERIAL FROM SURFACES** (working of metal by electro-erosion **B23H**; desurfacing by applying flames **B23K 7/00**; working metal by laser beam **B23K 26/00**; producing decorative effects by removing surface-material, e.g. by engraving, by etching, **B44C 1/22**) ; **INHIBITING CORROSION OF METALLIC MATERIAL; INHIBITING INCRUSTATION IN GENERAL** (treating metal surfaces or coating of metals by electrolysis or electrophoresis **C25D**, **C25F**) ; **MULTI-STEP PROCESSES FOR SURFACE TREATMENT OF METALLIC MATERIAL INVOLVING AT LEAST ONE PROCESS PROVIDED FOR IN CLASS C23 AND AT LEAST ONE PROCESS COVERED BY SUBCLASS C21D OR C22F OR CLASS C25** (inhibition or prevention of corrosion or incrustation during processing of hydrocarbons **C10G 7/10**, **C10G 9/16**, **C10G 75/00**)

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ANNEX 102E C25 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **ELECTROLYTIC OR ELECTROPHORETIC PROCESSES; APPARATUS THEREFOR**

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ANNEX 103E C25B [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **ELECTROLYTIC OR ELECTROPHORETIC PROCESSES FOR THE PRODUCTION OF COMPOUNDS OR NON- METALS; APPARATUS THEREFOR** (anodic or cathodic protection **C23F**; single-crystal growth **C30B**)

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ANNEX 104E C25C [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **PROCESSES FOR THE ELECTROLYTIC PRODUCTION, RECOVERY OR REFINING OF METALS; APPARATUS THEREFOR** (anodic or cathodic protection **C23F**; single-crystal growth **C30B**)

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ANNEX 105E C25D [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **PROCESSES FOR THE ELECTROLYTIC OR ELECTROPHORETIC PRODUCTION OF COATINGS; ELECTROFORMING** (manufacturing printed circuits by metal deposition **H05K 3/18**) ; **JOINING WORKPIECES BY ELECTROLYSIS; APPARATUS THEREFOR** (anodic or cathodic protection **C23F**; single-crystal growth **C30B**)

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ANNEX 106E C25F [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **PROCESSES FOR THE ELECTROLYTIC REMOVAL OF MATERIALS FROM OBJECTS; APPARATUS THEREFOR** (treatment of water, waste water or sewage by electrochemical methods **C02F 1/46**; anodic or cathodic protection **C23F**)

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ANNEX 107E C30 [ Project-Rapporteur : M035/IB ] <CE42>

CL M Title **CRYSTAL GROWTH**

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ANNEX 108E D01 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title NATURAL OR ARTIFICIAL THREADS OR FIBRES; SPINNING

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ANNEX 109E D01D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title MECHANICAL METHODS OR APPARATUS IN THE MANUFACTURE OF ARTIFICIAL FILAMENTS, THREADS, FIBRES, BRISTLES, OR RIBBONS (metal threads **B21**; fibres or filaments of softened glass, minerals or slag **C03B 37/00**)

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ANNEX 110E E01 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES

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ANNEX 111E E04 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title BUILDING

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ANNEX 112E F01 [ Project-Rapporteur : M107/US ] <CE42>

CL M Note Guide to the use of this subsection (classes **F01-F04**)

F01- The following notes are meant to assist in the use of this part of the classification scheme.

F04  
/

1. In this subsection, subclasses or groups designating "engines" or "pumps" cover methods of operating the same, unless otherwise specifically provided for.
2. In this subsection, the following terms or expressions are used with the meanings indicated:
  - "engine" means a device for continuously converting fluid energy into mechanical power. Thus, this term includes, for example, steam piston engines or steam turbines, per se, or internal-combustion piston engines, but it excludes single-stroke devices. "Engine" also includes the fluid-motive portion of a meter unless such portion is particularly adapted for use in a meter;
  - "pump" means a device for continuously raising, forcing, compressing, or exhausting fluid by mechanical or other means. Thus, this term includes fans or blowers;
  - "machine" means a device which could equally be an engine and a pump, and not a device which is restricted to an engine or one which is restricted to a pump;
  - "positive displacement" means the way the energy of a working fluid is transformed into mechanical energy, in which variations of volume created

by the working fluid in a working chamber produce equivalent displacements of the mechanical member transmitting the energy, the dynamic effect of the fluid being of minor importance, and vice versa ;

- "non-positive displacement" means the way the energy of a working fluid is transformed into mechanical energy, by transformation of the energy of the working fluid into kinetic energy, and vice versa ;
- "oscillating-piston machine" means a positive-displacement machine in which a fluid-engaging work-transmitting member oscillates. This definition applies also to engines and pumps;
- "rotary-piston machine" means a positive-displacement machine in which a fluid-engaging work-transmitting member rotates about a fixed axis or about an axis moving along a circular or similar orbit. This definition applies also to engines and pumps;
- "rotary piston" means the work-transmitting member of a rotary-piston machine and may be of any suitable form, e.g., like a toothed gear;
- "cooperating members" means the "oscillating piston" or "rotary piston" and another member, e.g., the working-chamber wall, which assists in the driving or pumping action;
- "movement of the co-operating members" is to be interpreted as relative, so that one of the "co-operating members" may be stationary, even though reference may be made to its rotational axis, or both may move;
- "teeth or tooth equivalents" include lobes, projections or abutments;
- "internal-axis type" means that the rotational axes of the inner and outer co-operating members remain at all times within the outer member, e.g., in a similar manner to that of a pinion meshing with the internal teeth of a ring gear;
- "free piston" means a piston of which the length of stroke is not defined by any member driven thereby;
- "cylinders" means positive-displacement working chambers in general. Thus, this term is not restricted to cylinders of circular cross-section;
- "main shaft" means the shaft which converts reciprocating piston motion into rotary motion or vice versa ;
- "plant" means an engine together with such additional apparatus as is necessary to run the engine. For example, a steam engine plant includes a steam engine and means for generating the steam;
- "working fluid" means the driven fluid in a pump or the driving fluid in an engine. The working fluid can be in a compressible, gaseous state, called elastic fluid, e.g. steam; in a liquid state; or in a state where there is coexistence of an elastic fluid and liquid phase.
- "steam" includes condensable vapours in general, and "special vapour" is used when steam is excluded;
- "reaction type" as applied to non-positive-displacement machines or engines means machines or engines in which pressure/velocity transformation takes place wholly or partly in the rotor. Machines or engines with no, or only slight, pressure/velocity transformation in the rotor are called "impulse type".

3. In this subsection:

- cyclically operating valves, lubricating, gas-flow silencers or exhaust apparatus, or cooling are classified in subclasses **F01L**, **F01M**, **F01N**, **F01P** irrespective of their stated application, unless their classifying features

are peculiar to their application, in which case they are classified only in the relevant subclass of classes **F01-F04**;

- lubricating, gas-flow silencers or exhaust apparatus, or cooling of machines or engines are classified in subclasses **F01M**, **F01N**, **F01P** except for those peculiar to steam engines which are classified in subclass **F01B**.
4. For use of this subsection with a good understanding, it is essential to remember, so far as subclasses **F01B**, **F01C**, **F01D**, **F03B**, and **F04B**, **F04C**, **F04D**, which form its skeleton, are concerned:
- the principle which resides in their elaboration,
  - the classifying characteristics which they call for, and
  - their complementarity.

i. Principle

This concerns essentially the subclasses listed above. Other subclasses, notably those of class **F02**, which cover better-defined matter, are not considered here.

Each subclass covers fundamentally a genus of apparatus (engine or pump) and by extension covers equally "machines" of the same kind. Two different subjects, one having a more general character than the other, are thus covered by the same subclass.

Subclasses **F01B**, **F03B**, **F04B**, beyond the two subjects which they cover, have further a character of generality in relation to other subclasses concerning the different species of apparatus in the genus concerned.

This generality applies as well for the two subjects dealt with, without these always being in relation to the same subclasses.

Thus, subclass **F03B**, in its part dealing with "machines", should be considered as being the general class relating to subclasses **F04B**, **F04C**, and in its part dealing with "engines" as being general in relation to subclass **F03C**.

ii. Characteristics

- a. The principal classifying characteristic of the subclass is that of genera of apparatus, of which there are three possible:

Machines; engines; pumps.

- b. As stated above, "machines" are always associated with one of the other two genera. These main genera are subdivided according to the general principles of operation of the apparatus:

Positive displacement; non-positive displacement.

- c. The positive displacement apparatus are further subdivided according to the ways of putting into effect the principle of operation, that is, to the kind of apparatus:

Simple reciprocating piston; rotary or oscillating piston; other kind.

- d. Another classifying characteristic is that of the working

fluid, in respect of which three kinds of apparatus are possible, namely:

Liquid and elastic fluid; elastic fluid; liquid.

iii. Complementarity

This resides in association of pairs of the subclasses listed above, according to the characteristics under consideration in respect of kind of apparatus or working fluid.

The subclasses concerned with the various principles, characteristics and complementarity are shown in the subsection index below.

It is seen from this index that:

- For the same kind of apparatus in a given genus, the characteristics of "working fluid" associates:

**F01B** and **F04B** to Machines

**F01C** and **F04C** to Machines

**F01D** and **F03B** to Machines

**F01B** and **F03C** to Engines

**F01C** and **F03C** to Engines

**F01D** and **F03B** to Engines

- For the same kind of working fluid, the "apparatus" characteristic relates subclasses in the same way as considerations of relative generality.

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ANNEX 113E F01 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **MACHINES OR ENGINES IN GENERAL; ENGINE PLANTS IN GENERAL; STEAM ENGINES**

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ANNEX 114E F01B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **MACHINES OR ENGINES, IN GENERAL OR OF POSITIVE-DISPLACEMENT TYPE, e.g. STEAM ENGINES** (of rotary-piston or oscillating-piston type **F01C**; of non-positive-displacement type **F01D**; combustion engines **F02**; internal-combustion aspects of reciprocating-piston engines **F02B 57/00**, **F02B 59/00**; machines for liquids **F03**, **F04**; crankshafts, crossheads, connecting-rods **F16C**; flywheels **F16F**; gearings for interconverting rotary motion and reciprocating motion in general **F16H**; pistons, piston-rods, cylinders, for engines in general **F16J**)

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ANNEX 115E F01C [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **ROTARY-PISTON OR OSCILLATING-PISTON MACHINES OR ENGINES**  
(combustion engines **F02**; internal-combustion aspects **F02B 53/00**, **F02B 55/00**; machines  
for liquids **F03**, **F04**)

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ANNEX 116E F01D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **NON-POSITIVE-DISPLACEMENT MACHINES OR ENGINES, e.g. STEAM  
TURBINES** (combustion engines **F02**; machines or engines for liquids **F03**, **F04**; non-  
positive-displacement pumps **F04D**)

---

ANNEX 117E F02 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **COMBUSTION ENGINES; HOT-GAS OR COMBUSTION-PRODUCT ENGINE  
PLANTS**

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ANNEX 118E F02B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **INTERNAL-COMBUSTION PISTON ENGINES; COMBUSTION ENGINES IN  
GENERAL** (cyclically operating valves therefor **F01L**; lubricating internal-combustion  
engines **F01M**; gas-flow silencers or exhaust apparatus therefor **F01N**; cooling of internal-  
combustion engines **F01P**; internal-combustion turbines **F02C**; plants in which engines use  
combustion products **F02C**, **F02G**)

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ANNEX 119E F02P [ Project-Rapporteur : C453/EP ] <CE42>

CL M 17/12 · Testing characteristics of the spark, ignition voltage or current

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ANNEX 120E F03 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **MACHINES OR ENGINES FOR LIQUIDS; WIND, SPRING, OR WEIGHT  
MOTORS; PRODUCING MECHANICAL POWER OR A REACTIVE  
PROPULSIVE THRUST, NOT OTHERWISE PROVIDED FOR**

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ANNEX 121E F04 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **POSITIVE-DISPLACEMENT MACHINES FOR LIQUIDS; PUMPS FOR LIQUIDS OR ELASTIC FLUIDS**

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ANNEX 122E F04B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **POSITIVE-DISPLACEMENT MACHINES FOR LIQUIDS; PUMPS** (engine fuel-injection pumps **F02M**; machines for liquids, or pumps, of rotary-piston or oscillating-piston type **F04C**; non-positive-displacement pumps **F04D**; pumping of fluid by direct contact of another fluid or by using inertia of fluid to be pumped **F04F**; crankshafts, crossheads, connecting-rods **F16C**; flywheels **F16F**; gearings for interconverting rotary motion and reciprocating motion in general **F16H**; pistons, piston-rods, cylinders, in general **F16J**)

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ANNEX 123E F04C [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **ROTARY-PISTON, OR OSCILLATING-PISTON, POSITIVE-DISPLACEMENT MACHINES FOR LIQUIDS** (engines driven by liquids **F03C**) ; **ROTARY-PISTON, OR OSCILLATING-PISTON, POSITIVE-DISPLACEMENT PUMPS** (engine fuel-injection pumps **F02M**)

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ANNEX 124E F04C [ Project-Rapporteur : M107/US ] <CE42>

CL M Subclass  
index

MACHINES FOR LIQUIDS; PUMPS FOR LIQUIDS  
OR FOR LIQUIDS AND ELASTIC FLUIDS

Rotary-piston

general characteristics; non-parallel axes of  
movement of co-operating members **2/00; 3/00**

resiliently-deformable chamber walls; fluid ring **5/00; 7/00**

Oscillating-piston **9/00**

Combinations or adaptations **11/00, 13/00**

Pump installations **11/00**

Control; monitoring; safety arrangements **14/00**

Other details or accessories **15/00**

PUMPS SPECIALLY ADAPTED FOR ELASTIC  
FLUIDS

Rotary-piston pumps **18/00**

Rotary-piston pumps with fluid ring or the like **19/00**

Oscillating-piston pumps	21/00
Combinations of two or more pumps, each being of rotary-piston or oscillating-piston type; Pumping installations; Multi-stage pumps	23/00
Adaptations of pumps for special use	25/00
Sealing arrangements in rotary-piston pumps	27/00
Control; monitoring; safety arrangements	28/00
Other components parts, details or accessories	29/00

CL N *Guidance heading* Machines for liquids; Pumps for liquids or for liquids and elastic fluids  
2/00-  
15/00

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ANNEX 125E F04C [ Project-Rapporteur : D018/EP ] <CE42>

CL M 11/00 **Combinations of two or more machines or pumps, each being of rotary-piston or oscillating-piston type** (combinations of such pumps specially adapted for elastic fluids **F04C 23/00**) ; **Pumping installations** (**F04C 13/00** takes precedence; specially adapted for elastic fluids **F04C 23/00**; fluid gearing **F16H 39/00-F16H 47/00**)

CL M 29/02 • Lubrication; Lubricant separation

CL M 29/04 • Heating; Cooling; Heat insulation

CL M 29/06 • Silencing

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ANNEX 126E F04D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **NON-POSITIVE-DISPLACEMENT PUMPS** (engine fuel-injection pumps **F02M**)

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ANNEX 127E F16C [ Project-Rapporteur : D101/DE ] <CE42>

CL M Title **SHAFTS; FLEXIBLE SHAFTS; MECHANICAL MEANS FOR TRANSMITTING MOVEMENT IN A FLEXIBLE SHEATHING; ELEMENTS OF CRANKSHAFT MECHANISMS; PIVOTS; PIVOTAL CONNECTIONS; ROTARY ENGINEERING ELEMENTS OTHER THAN GEARING, COUPLING, CLUTCH OR BRAKE ELEMENTS; BEARINGS**

- CL M Note In this subclass, the following expression is used with the meaning indicated:  
F16C
- "rotary engineering elements other than gearing, coupling, clutch or brake elements" covers any engineering element other than gearing, coupling, clutch or brake elements which rotates in so far as its features are affected only by the fact that it rotates.
- CL M 3/03 · · telescopic
- CL M 3/28 · · · Adjustable cranks or eccentrics
- CL M **7/00 Connecting-rods or like links pivoted at both ends** (coupling-rods for locomotive driving-wheels **B61C**) ; **Construction of connecting-rod heads** (heads rigid with crossheads **F16C 5/00**)
- CL M 9/06 · · Arrangements for adjusting play in bearings, operating either automatically or not
- CL M 11/04 · Pivotal connections (hinges for doors, windows or wings **E05D**)
- CL M 11/06 · · Ball-joints; Other joints having more than one degree of angular freedom, i.e. universal joints (universal joints in which flexibility is produced by means of pivots or sliding or rolling connecting parts **F16D 3/16**)
- CL M **13/00 Rolls, drums, discs, or the like** (guide rollers in feeding webs **B65H 27/00**; calender rolls, bearings therefor **D21G 1/02**; rotary drums or rollers for heat-exchange or heat-transfer apparatus **F28F 5/02**; special adaptations, see the relevant classes) ; **Bearings or mountings therefor**
- AL M 27/06 · by means of parts of rubber or like materials (**F16C 27/08** takes precedence; with sliding surfaces of rubber or synthetic rubber **F16C 33/22**)
- AL M 29/10 · Arrangements for locking the bearings
- AL M 33/12 · · · · Structural composition; Use of special materials or surface treatments, e.g. for rust-proofing
- CL M 33/22 · · · Sliding surface consisting mainly of rubber or synthetic rubber (**F16C 33/24-F16C 33/28** take precedence)
- CL M 33/72 · Sealings
- CL M **35/00 Rigid support of bearing units; Housings, e.g. caps, covers** (**F16C 23/00** takes precedence)
- AL M 35/06 · · Mounting of ball or roller bearings; Fixing them onto shaft or in housing

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ANNEX 128E F16D [ Project-Rapporteur : D102/DE ] <CE42>

AL D Note < Deleted >  
F16D



CL M 1/00 **Couplings for rigidly connecting two coaxial shafts or other movable machine elements**  
(for attachment of cranks to their shafts **F16C 3/10**)

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**ANNEX 129E F16D** [ **Project-Rapporteur : A028/EP** ] <CE42>

AL C 3/223 . . . . . *the rolling members being guided in grooves in both coupling parts*

AL N 3/2233 . . . . . *where the track is made up of two curves with a point of inflexion in between, i.e. S-track joints*

AL N 3/2237 . . . . . *where the grooves are composed of radii and adjoining straight lines, i.e. undercut free [UF] type joints*

AL C 3/224 . . . . . *the groove centre-lines of each coupling part lying on a sphere*

AL N 3/2245 . . . . . *where the groove centres are offset from the joint centre*

AL M 3/226 . . . . . *the groove centre-lines of each coupling part lying on a cylinder co-axial with the respective coupling part*

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**ANNEX 130E F16D** [ **Project-Rapporteur : D102/DE** ] <CE42>

CL M 3/82 . . with a coupling element in the form of a pneumatic tube

AL M 7/04 . of the ratchet type

AL M 13/08 . with a helical band or equivalent member, which may be built-up from linked parts, with more than one turn embracing a drum or the like, with or without an additional clutch actuating the end of the band (**F16D 13/02** takes precedence)

AL M 13/10 . with clutching members co-operating with the periphery of a drum, a wheel-rim, or the like (**F16D 13/02-F16D 13/08** take precedence)

AL M 13/12 . with an expansible band or coil co-operating with the inner surface of a drum or the like (**F16D 13/02** takes precedence)

AL M 13/14 . with outwardly-movable clutching members co-operating with the inner surface of a drum or the like (**F16D 13/02, F16D 13/06, F16D 13/12** take precedence)

AL M 13/20 . with clutching members co-operating with both the periphery and the inner surface of a drum or wheel-rim

AL M 13/22 . with axially-movable clutching members

AL M 21/02 . for interconnecting three or more shafts or other transmission members in different ways

AL M 25/10 . Clutch systems with a plurality of fluid-actuated clutches

AL M 33/16 . . by means arranged externally of the coupling or clutch

- AL M 33/18 · Details
- AL M **43/00 Internally controlled automatic clutches** (freewheels, freewheel clutches **F16D 41/00**;  
external control of clutches **F16D 48/00**)
- AL M 43/26 · · acting at definite angular position or disengaging after a definite number of rotations  
(actuating by means of stationary abutment **F16D 11/02**, **F16D 13/02**, **F16D 15/00**)
- CL M **49/00 Brakes with a braking member co-operating with the periphery of a drum, wheel-rim,  
or the like**
- AL M 49/02 · shaped as a helical band or coil with more than one turn, with or without intensification of  
the braking force by the tension of the band or contracting member
- CL M **51/00 Brakes with outwardly-movable braking members co-operating with the inner surface  
of a drum or the like**
- CL M 51/02 · shaped as one or more circumferential bands
- CL M **53/00 Brakes with braking members co-operating with both the periphery and the inner  
surface of a drum, wheel-rim, or the like**
- CL M **55/00 Brakes with substantially-radial braking surfaces pressed together in axial direction,  
e.g. disc brakes**
- CL M **65/00 Parts or details of brakes**
- CL M **67/00 Combinations of couplings and brakes; Combinations of clutches and brakes** (**F16D  
71/00** takes precedence; conjoint control of brake systems and driveline clutches in  
vehicles **B60W 10/02**, **B60W 10/18**)
- CL M **69/00 Friction linings; Attachment thereof; Selection of coacting friction substances or  
surfaces** (braking members **F16D 65/02**)
- CL M **71/00 Mechanisms for bringing members to rest in a predetermined position** (combined with,  
or controlling, clutches **F16D 43/26**; means for initiating operation of brakes at a  
predetermined position **F16D 65/14**)

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ANNEX 131E F16G [ Project-Rapporteur : D103/DE ] <CE42>

CL D Note < Deleted >  
F16G

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ANNEX 132E F17 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **STORING OR DISTRIBUTING GASES OR LIQUIDS**

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**ANNEX 133E F17D [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **PIPE-LINE SYSTEMS; PIPE-LINES** (distributing water **E03B**; pumps or compressors **F04**; fluid dynamics **F15D**; valves or the like **F16K**; pipes, laying pipes, supports, joints, branches, repairing, work on the entire line, accessories **F16L**; steam traps or the like **F16T**; fluid-pressure electric cables **H01B 9/06**)

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**ANNEX 134E F21 [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **LIGHTING**

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**ANNEX 135E F21L [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **LIGHTING DEVICES OR SYSTEMS THEREOF, BEING PORTABLE OR SPECIALLY ADAPTED FOR TRANSPORTATION** (burners **F23D**; electric aspects or elements, see section H, e.g. electric light sources **H01J, H01K, H05B**)

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**ANNEX 136E F21S [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **NON-PORTABLE LIGHTING DEVICES OR SYSTEMS THEREOF** (burners **F23D**; electric aspects or elements, see section H, e.g. electric light sources **H01J, H01K, H05B**)

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**ANNEX 137E F22 [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **STEAM GENERATION**

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**ANNEX 138E F22B [ Project-Rapporteur : M033/IB ] <CE42>**

CL M Title **METHODS OF STEAM GENERATION; STEAM BOILERS** (steam engine plants where engine aspects predominate **F01K**; chemical generation of gas, e.g. under pressure, Section C; removal of combustion products or residues, e.g. cleaning of the combustion contaminated surfaces of tubes of boilers, **F23J 3/00**; domestic central-heating systems using steam **F24D**; heat exchange or heat transfer in general **F28**; generation of vapour in the cores of nuclear reactors **G21**)

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**ANNEX 139E F22G [ Project-Rapporteur : M033/IB ] <CE42>**

CL M **Title SUPERHEATING OF STEAM** (steam-separating arrangements in boilers [F22B 37/26](#); chemical generation of gas, e.g. under pressure, Section C; removal of combustion products or residues, e.g. cleaning of the combustion contaminated surfaces of tubes of boilers, [F23J 3/00](#))

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**ANNEX 140E F23B [ Project-Rapporteur : A026/JP ] <CE42>**

CL C *10/00 Combustion apparatus characterised by the combination of two or more combustion chambers*

AL N *10/02 • including separate secondary combustion chambers*

CL C *90/00 Combustion methods not related to a particular type of apparatus*

AL N *90/02 • Start-up techniques*

AL N *90/04 • including secondary combustion (in separate combustion chambers [F23B 10/02](#))*

AL N *90/06 • • the primary combustion being a gasification or pyrolysis in a reductive atmosphere*

AL N *90/08 • • in the presence of catalytic material*

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**ANNEX 141E F23Q [ Project-Rapporteur : D139/SE ] <CE42>**

CL M **Title IGNITION** (devices for igniting matches [A24F](#); chemical igniters [C06C 9/00](#));  
**EXTINGUISHING DEVICES**

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**ANNEX 142E F23Q [ Project-Rapporteur : M715/SE ] <CE42>**

CL M **1/00 Mechanical ignition** (lighters containing fuel [F23Q 2/00](#); matches [C06F](#))

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**ANNEX 143E F23Q [ Project-Rapporteur : D139/SE ] <CE42>**

AL M *2/173 • • • Valves therefor*

AL M *2/28 • Lighters characterised by electrical ignition of the fuel*

AL M *2/30 • Lighters characterised by catalytic ignition of fuel*

AL M 2/52 · · Filling devices

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**ANNEX 144E F23Q [ Project-Rapporteur : M715/SE ] <CE42>**

CL M 3/00 **Ignition using electrically-produced sparks** (lighters containing fuel [F23Q 2/28](#); sparking-plugs [H01T 13/00](#))

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**ANNEX 145E F23Q [ Project-Rapporteur : D139/SE ] <CE42>**

CL M 5/00 **Make-and-break ignition, i.e. with spark generated between electrodes by breaking contact therebetween**

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**ANNEX 146E F23Q [ Project-Rapporteur : M715/SE ] <CE42>**

CL M 7/00 **Incandescent ignition; Ignition using electrically-produced heat, e.g. lighters for cigarettes; Electrically-heated glowing plugs**

AL M 7/06 · Igniters structurally associated with fluid-fuel burners (lighters containing fuel [F23Q 2/00](#))

CL M 9/00 **Ignition by a pilot flame**

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**ANNEX 147E F23Q [ Project-Rapporteur : D139/SE ] <CE42>**

CL M 11/00 **Arrangement of catalytic igniters**

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**ANNEX 148E F23Q [ Project-Rapporteur : M715/SE ] <CE42>**

CL M 13/00 **Ignition not otherwise provided for**

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**ANNEX 149E F23Q [ Project-Rapporteur : C453/EP ] <CE42>**

CL M 23/00 **Testing of ignition installations** (peculiar to internal-combustion engines [F02P 17/00](#); testing of sparking plugs [H01T 13/58](#))

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ANNEX 150E F23Q [ Project-Rapporteur : D139/SE ] <CE42>

CL M 25/00 Extinguishing devices, e.g. for blowing-out or snuffing candle flames

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ANNEX 151E F23R [ Project-Rapporteur : D140/SE ] <CE42>

CL M Title **GENERATING COMBUSTION PRODUCTS OF HIGH PRESSURE OR HIGH VELOCITY, e.g. GAS-TURBINE COMBUSTION CHAMBERS** (using such products for specific purposes, see the relevant classes for the purposes; fluidised bed combustion apparatus specially adapted for operation at superatmospheric pressures **F23C 10/16**)

CL M 3/28 · characterised by the fuel supply

CL M 5/00 **Continuous combustion chambers using solid or pulverulent fuel**

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ANNEX 152E F24 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **HEATING; RANGES; VENTILATING**

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ANNEX 153E F24C [ Project-Rapporteur : M033/IB ] <CE42>

CL M 15/00 **Details** (electric heating elements or arrangements **H05B**)

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ANNEX 154E F24D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **DOMESTIC- OR SPACE-HEATING SYSTEMS, e.g. CENTRAL HEATING SYSTEMS; DOMESTIC HOT-WATER SUPPLY SYSTEMS; ELEMENTS OR COMPONENTS THEREFOR** (preventing corrosion **C23F**; water supply in general **E03**; using steam or condensate extracted or exhausted from steam engine plants for heating purposes **F01K 17/02**; steam traps **F16T**; domestic stoves or ranges **F24B, F24C**; water or air heaters having heat generating means **F24H**; combined heating and refrigeration systems **F25B**; heat exchange apparatus or elements **F28**; removing furring **F28G**; electric heating elements or arrangements **H05B**)

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ANNEX 155E F24F [ Project-Rapporteur : A013/JP ] <CE42>

CL C 1/00 *Room units, e.g. separate or self-contained units or units receiving primary air from a central station*

- CL C 1/01 · *in which secondary air is induced by injector action of the primary air (F24F 1/02 takes precedence)*
- CL C 1/02 · *self-contained, i.e. with all apparatus for treatment installed in a common casing*
- CL C 1/04 · · *Arrangements for portability*
- AL N 1/06 · *Separate outdoor units, e.g. outdoor unit to be linked to a separate room unit comprising a compressor and a heat exchanger*
- AL N 1/06 *Note In this group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place. [new.]*
- AL N 1/08 · · *Compressors specially adapted for separate outdoor units*
- AL N 1/10 · · · *Arrangement or mounting thereof*
- AL N 1/12 · · · *Vibration or noise prevention therefor*
- AL N 1/14 · · *Heat exchangers specially adapted for separate outdoor units*
- AL N 1/16 · · · *Arrangement or mounting thereof*
- AL N 1/18 · · · *characterised by their shape*
- AL N 1/20 · · *Electric components for separate outdoor units*
- AL N 1/22 · · · *Arrangement or mounting thereof*
- AL N 1/24 · · · *Cooling of electric components*
- AL N 1/26 · · *Refrigerant piping*
- AL N 1/28 · · · *for connecting several separate outdoor units*
- AL N 1/30 · · · *for use inside the separate outdoor units*
- AL N 1/32 · · · *for connecting the separate outdoor unit to indoor units*
- AL N 1/34 · · · *Protection means therefor, e.g. covers for refrigerant pipes*
- AL N 1/36 · · *Drip trays for outdoor units*
- AL N 1/38 · · *Fan details of outdoor units, e.g. bell-mouth shaped inlets or fan mountings*
- AL N 1/40 · · *Vibration or noise prevention at outdoor units (for outdoor unit compressors F24F 1/12)*
- AL N 1/42 · · *characterised by the use of the condensate, e.g. for enhanced cooling*
- AL N 1/44 · · *characterised by the use of internal combustion engines*

- AL N 1/46 · · Component arrangements in separate outdoor units
- AL N 1/48 · · · characterised by airflow, e.g. inlet or outlet airflow
- AL N 1/50 · · · · with outlet air in upward direction
- AL N 1/52 · · · · Inlet and outlet arranged on the same side, e.g. for mounting in a wall opening
- AL N 1/54 · · · · Inlet and outlet arranged on opposite sides
- AL N 1/56 · · Casing or covers of separate outdoor units, e.g. fan guards
- AL N 1/58 · · · Separate protective covers for outdoor units, e.g. solar guards, snow shields or camouflage
- AL N 1/60 · · Arrangement or mounting of the outdoor unit
- AL N 1/62 · · · Wall-mounted
- AL N 1/64 · · · Ceiling-mounted, e.g. below a balcony
- AL N 1/66 · · · under the floor level
- AL N 1/68 · · · Arrangement of multiple separate outdoor units

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ANNEX 156E F27 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **FURNACES; KILNS; OVENS; RETORTS**

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ANNEX 157E F27B [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **FURNACES, KILNS, OVENS, OR RETORTS IN GENERAL; OPEN SINTERING OR LIKE APPARATUS** (combustion apparatus **F23**; electric heating **H05B**)

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ANNEX 158E F27D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **DETAILS OR ACCESSORIES OF FURNACES, KILNS, OVENS, OR RETORTS, IN SO FAR AS THEY ARE OF KINDS OCCURRING IN MORE THAN ONE KIND OF FURNACE** (combustion apparatus **F23**; electric heating **H05B**)

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ANNEX 159E F28 [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **HEAT EXCHANGE IN GENERAL**

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ANNEX 160E F28C [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **HEAT-EXCHANGE APPARATUS, NOT PROVIDED FOR IN ANOTHER SUBCLASS, IN WHICH THE HEAT-EXCHANGE MEDIA COME INTO DIRECT CONTACT WITHOUT CHEMICAL INTERACTION** (heat-transfer, heat-exchange or heat-storage materials **C09K 5/00**; fluid heaters having heat generating means **F24H**; with an intermediate heat-transfer medium coming into direct contact with heat-exchange media **F28D 15/00-F28D 19/00**; details of heat-exchange apparatus of general application **F28F**)

---

ANNEX 161E F28D [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **HEAT-EXCHANGE APPARATUS, NOT PROVIDED FOR IN ANOTHER SUBCLASS, IN WHICH THE HEAT-EXCHANGE MEDIA DO NOT COME INTO DIRECT CONTACT** (heat-transfer, heat-exchange or heat-storage materials **C09K 5/00**; fluid heaters having heat generating means and heat transferring means **F24H**; furnaces **F27**; details of heat-exchange apparatus of general application **F28F**) ; **HEAT STORAGE PLANTS OR APPARATUS IN GENERAL**

---

ANNEX 162E F28F [ Project-Rapporteur : M033/IB ] <CE42>

CL M Title **DETAILS OF HEAT-EXCHANGE OR HEAT-TRANSFER APPARATUS, OF GENERAL APPLICATION** (heat-transfer, heat-exchange or heat-storage materials **C09K 5/00**; water or air traps, air venting **F16**)

CL M **23/00 Features relating to the use of intermediate heat-exchange materials, e.g. selection of compositions**

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ANNEX 163E F41H [ Project-Rapporteur : A025/EP ] <CE42>

AL C *11/00 Defence installations; Defence devices (constructional aspects, see section E, e.g. **E04H 9/04**) ; Means for clearing or detecting landmines*

AL C *11/12 · Means for clearing land minefields; Systems specially adapted for detection of landmines*

AL N *11/13 · · Systems specially adapted for detection of landmines*

AL N *11/132 · · · Biological systems, e.g. with detection by animals or plants*

- AL N 11/134 · · · *Chemical systems, e.g. with detection by vapour analysis*
- AL N 11/136 · · · *Magnetic, electromagnetic, acoustic or radiation systems, e.g. ground penetrating radars or metal-detectors*
- AL N 11/138 · · · *Mechanical systems, e.g. prodding sticks for manual detection*
- AL C 11/14 · · *Explosive line charges, e.g. snakes*
- AL C 11/16 · · *Self-propelled mine-clearing vehicles; Mine-clearing devices attachable to vehicles*
- AL N 11/18 · · · *with ground-impacting means for activating mines by the use of mechanical impulses, e.g. flails or stamping elements*
- AL N 11/20 · · · *with ground-penetrating elements, e.g. with means for removing buried landmines from the soil (F41H 11/18 takes precedence)*
- AL N 11/22 · · · · *the elements being excavation buckets*
- AL N 11/24 · · · · *the elements being ploughs*
- AL N 11/26 · · · · *the elements being rotary ground-penetrating elements*
- AL N 11/28 · · · *using brushing or sweeping means or dozers to push mines lying on a surface aside; using means for removing mines intact from a surface*
- AL N 11/30 · · · *with rollers creating a surface load on the ground, e.g. steadily increasing surface load, for triggering purposes*
- AL N 11/32 · · · *Decoy or sacrificial vehicles; Decoy or sacrificial devices attachable to vehicles*

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ANNEX 164E G01D [ Project-Rapporteur : D172/EP ] <CE42>

- CL M Title **MEASURING NOT SPECIALLY ADAPTED FOR A SPECIFIC VARIABLE; ARRANGEMENTS FOR MEASURING TWO OR MORE VARIABLES NOT COVERED BY A SINGLE OTHER SUBCLASS; TARIFF METERING APPARATUS; MEASURING OR TESTING NOT OTHERWISE PROVIDED FOR**
- CL M 1/00 **Measuring arrangements giving results other than momentary value of variable, of general application (G01D 3/00 takes precedence; in tariff metering apparatus G01D 4/00; transducers not specially adapted for a specific variable G01D 5/00)**
- AL M 1/18 · with arrangements for signalling that a predetermined value of an unspecified parameter has been exceeded (G01D 1/14 takes precedence)
- CL M 4/00 **Tariff metering apparatus** (in taximeters G07B 13/00; apparatus actuated by coins, cards or the like with meter-controlled dispensing of liquid, gas, or electricity G07F 15/00)
- AL M 4/04 · · Resetting-mechanisms, e.g. for indicating members
- AL M 4/08 · · Transfer of indication from a counter into a summing counter

- CL M 5/00 **Mechanical means for transferring the output of a sensing member; Means for converting the output of a sensing member to another variable where the form or nature of the sensing member does not constrain the means for converting; Transducers not specially adapted for a specific variable (G01D 3/00 takes precedence; specially adapted for apparatus giving results other than momentary value of variable G01D 1/00)**
- AL M 5/04 · · using levers; using cams; using gearing
- AL M 5/06 · · acting through a wall or enclosure, e.g. by bellows, by magnetic coupling
- AL M 11/02 · Bearings or suspensions for moving parts
- AL M 11/30 · Supports specially adapted for an instrument; Supports specially adapted for a set of instruments
- CL M 15/16 · Recording elements transferring recording material, e.g. ink, to the recording surface (printing recording elements G01D 15/20)
- AL M 15/26 · · operating by clockwork
- 

**ANNEX 165E G01G** [ Project-Rapporteur : D174/EP ] <CE42>

- CL M **Title WEIGHING**
- AL M 5/04 · with means for measuring the pressure imposed by the load on a liquid
- AL M 11/08 · having means for controlling the rate of feed or discharge
- AL M 11/14 · using totalising or integrating devices
- CL M **15/00 Arrangements for check-weighing of materials dispensed into removable containers**
- CL M 19/08 · for incorporation in vehicles
- AL M 19/14 · for weighing suspended loads (G01G 3/00 takes precedence)
- AL M 19/22 · for apportioning materials by weighing prior to mixing them
- CL M 19/40 · with provisions for indicating, recording, or computing price or other quantities dependent on the weight (indicating means for weighing apparatus G01G 23/18; recording means for weighing apparatus G01G 23/18)
- AL M 21/02 · Arrangements of bearings
- AL M 21/10 · · Floating suspensions; Arrangements of shock-absorbers
- AL M 23/38 · · Recording or coding devices specially adapted for weighing apparatus
-

ANNEX 166E G01H [ Project-Rapporteur : D175/EP ] <CE42>

CL M Title **MEASUREMENT OF MECHANICAL VIBRATIONS OR ULTRASONIC, SONIC OR INFRASONIC WAVES**

CL M 7/00 **Measuring reverberation time**

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ANNEX 167E G01J [ Project-Rapporteur : D176/EP ] <CE42>

CL M Title **MEASUREMENT OF INTENSITY, VELOCITY, SPECTRAL CONTENT, POLARISATION, PHASE OR PULSE CHARACTERISTICS OF INFRA-RED, VISIBLE OR ULTRA-VIOLET LIGHT; COLORIMETRY; RADIATION PYROMETRY**

AL M 1/26 . . . . . adapted for automatic variation of the measured or reference value

AL M 1/32 . . . . . adapted for automatic variation of the measured or reference value

AL M 3/18 . . using diffraction elements, e.g. grating

CL M 4/00 **Measuring polarisation of light**

CL M 5/00 **Radiation pyrometry**

CL M 5/12 . . using thermoelectric elements, e.g. thermocouples

AL M 5/18 . . . . . Special adaptation for indicating or recording

CL M 9/00 **Measuring optical phase difference; Determining degree of coherence; Measuring optical wavelength** (spectrometry [G01J 3/00](#))

AL M 9/02 . by interferometric methods

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ANNEX 168E G01K [ Project-Rapporteur : D177/EP ] <CE42>

CL M Title **MEASURING TEMPERATURE; MEASURING QUANTITY OF HEAT; THERMALLY-SENSITIVE ELEMENTS NOT OTHERWISE PROVIDED FOR** (radiation pyrometry [G01J 5/00](#))

CL M 3/00 **Thermometers giving results other than momentary value of temperature** ([G01K 7/42](#) takes precedence)

CL M 5/00 **Measuring temperature based on the expansion or contraction of a material** ([G01K 9/00](#) takes precedence; giving other than momentary value of temperature [G01K 3/00](#))

AL M 5/02 . the material being a liquid ([G01K 5/32](#) takes precedence)

- AL M 5/28 · the material being a gas (**G01K 5/32** takes precedence)
  - AL M 5/32 · the material being a fluid contained in a hollow body having parts which are deformable or displaceable under the pressure developed by the material (under pressure developed by evaporation **G01K 11/04**)
  - CL M **7/00 Measuring temperature based on the use of electric or magnetic elements directly sensitive to heat** (giving results other than momentary value of temperature **G01K 3/00**)
  - CL M 7/02 · using thermo-electric elements, e.g. thermo-couples
  - CL M 7/16 · using resistive elements
  - CL M 7/34 · using capacitative elements
  - CL M 7/36 · using magnetic elements, e.g. magnets, coils
  - AL M 11/12 · using change of colour or translucency (**G01K 11/32** takes precedence)
  - AL M 11/28 · using measurements of density
  - CL M **17/00 Measuring quantity of heat**
- 

ANNEX 169E G01L [ Project-Rapporteur : D178/EP ] <CE42>

- CL M **Title MEASURING FORCE, STRESS, TORQUE, WORK, MECHANICAL POWER, MECHANICAL EFFICIENCY, OR FLUID PRESSURE** (weighing **G01G**)
- CL M **1/00 Measuring force or stress, in general** (measuring force due to impact **G01L 5/00**)
- CL M 1/18 · using properties of piezo-resistive materials, i.e. materials of which the ohmic resistance varies according to changes in magnitude or direction of force applied to the material
- AL M 1/22 · · using resistance strain gauges
- AL M 3/24 · Devices for determining the value of power, e.g. by measuring and simultaneously multiplying the values of torque and revolutions per unit of time, by multiplying the values of tractive or propulsive force and velocity
- CL M **5/00 Apparatus for, or methods of, measuring force, e.g. due to impact, work, mechanical power, or torque, adapted for special purposes**
- CL M 5/20 · for measuring wheel side-thrust
- CL M 5/24 · for determining value of torque or twisting moment for tightening a nut or other member which is similarly stressed

- CL M 7/00 **Measuring the steady or quasi-steady pressure of a fluid or a fluent solid material by mechanical or fluid pressure-sensitive elements** (transmitting or indicating the displacement of mechanical pressure-sensitive elements by electric or magnetic means **G01L 9/00**; measuring differences of two or more pressure values **G01L 13/00**; measuring two or more pressure values simultaneously **G01L 15/00**)
- CL M 9/00 **Measuring steady or quasi-steady pressure of a fluid or a fluent solid material by electric or magnetic pressure-sensitive elements; Transmitting or indicating the displacement of mechanical pressure-sensitive elements, used to measure the steady or quasi-steady pressure of a fluid or fluent solid material, by electric or magnetic means** (measuring differences of two or more pressure values **G01L 13/00**; measuring two or more pressure values simultaneously **G01L 15/00**)
- CL M 17/00 **Devices or apparatus for measuring tyre pressure or the pressure in other inflated bodies**
- AL M 21/30 • by making use of ionisation effects
- AL M 23/32 • • Apparatus specially adapted for recording pressure changes measured by indicators

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ANNEX 170E G01M [ Project-Rapporteur : C453/EP ] <CE42>

CL M Title **TESTING STATIC OR DYNAMIC BALANCE OF MACHINES OR STRUCTURES; TESTING OF STRUCTURES OR APPARATUS, NOT OTHERWISE PROVIDED FOR**

CL M Subclass  
index

TESTING STATIC OR DYNAMIC BALANCE OF MACHINES OR STRUCTURES	<b>1/00</b>
INVESTIGATING FLUID-TIGHTNESS; ELASTICITY	<b>3/00; 5/00</b>
VIBRATION- OR SHOCK-TESTING	<b>7/00</b>
SPECIAL APPLICATIONS	
Aerodynamic; hydrodynamic testing	<b>9/00; 10/00</b>
Optical testing	<b>11/00</b>
Mechanical or engine testing	<b>13/00, 15/00, 17/00</b>
SUBJECT MATTER NOT PROVIDED FOR IN OTHER GROUPS OF THIS SUBCLASS	<b>99/00</b>

CL D 19/00 (transferred to **G01M 99/00** )

CL D 19/02 (transferred to **H01T 13/58** )

CL N **99/00 Subject matter not provided for in other groups of this subclass**

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**ANNEX 171E G01R** [ **Project-Rapporteur : C453/EP** ] <CE42>

CL D 31/38 (transferred to [H01T 13/60](#) )

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**ANNEX 172E G01S** [ **Project-Rapporteur : A009/EP** ] <CE42>

CL M Subclass  
index

BEACON SYSTEMS; DIRECTION-FINDERS; POSITION FIXING	<a href="#">1/00</a> , <a href="#">19/00</a> ; <a href="#">3/00</a> ; <a href="#">5/00</a>
RADAR OR ANALOGOUS SYSTEMS	
Details	<a href="#">7/00</a>
Using radio waves, using other waves where the wavelength or the kind of wave is irrelevant or unspecified	<a href="#">13/00</a>
Using acoustic waves	<a href="#">15/00</a>
Using electromagnetic waves other than radio waves	<a href="#">17/00</a>
SYSTEMS FOR DETERMINING DISTANCE OR VELOCITY NOT USING REFLECTION OR RERADIATION	<a href="#">11/00</a>

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**ANNEX 173E G01T** [ **Project-Rapporteur : M708/IE** ] <CE42>

CL M Title **MEASUREMENT OF NUCLEAR OR X-RADIATION** (radiation analysis of materials, mass spectrometry [G01N 23/00](#); tubes for determining the presence, intensity, density or energy of radiation or particles [H01J 47/00](#))

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**ANNEX 174E G01W** [ **Project-Rapporteur : D180/EP** ] <CE42>

CL M Title **METEOROLOGY** (radar, sonar, lidar or analogous systems, designed for meteorological use [G01S 13/95](#), [G01S 15/88](#), [G01S 17/95](#))

AL M 1/08 · Adaptations of balloons, missiles, or aircraft for meteorological purposes; Radiosondes

AL M 1/12 · Sunshine-duration recorders

CL M 1/14 · Rainfall or precipitation gauges

AL M 1/16 · Measuring atmospheric potential differences, e.g. due to electrical charges in clouds

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ANNEX 175E G02 [ Project-Rapporteur : M034/IB ] <CE42>

CL M Title OPTICS

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ANNEX 176E G03 [ Project-Rapporteur : M034/IB ] <CE42>

CL M Title **PHOTOGRAPHY; CINEMATOGRAPHY; ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ELECTROGRAPHY; HOLOGRAPHY**

- CL M Note G03
1. This class does not cover reproduction of pictures or patterns by scanning and converting into electrical signals, which is covered by subclass **H04N**. [new.]
  2. In this class, the following terms are used with the meaning indicated:
    - "records" means photographs or any other kind of latent, directly-visible or permanent storage of pictorial information, which consist of an imagewise distribution of a quantity, e.g. an electric charge pattern, recorded on a carrier member;
    - "optical" applies not only to visible light but also to ultra-violet or infra-red radiations. [4]
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ANNEX 177E G06 [ Project-Rapporteur : M034/IB ] <CE42>

CL M Title **COMPUTING; CALCULATING; COUNTING**

- CL M Note G06
1. This class covers :
    - simulators which are concerned with the mathematics of computing the existing or anticipated conditions within the real device or system;
    - simulators which demonstrate, by means involving computing, the function of apparatus or of a system, if no provision exists elsewhere;
    - image data processing or generation.
  2. This class does not cover :
    - combinations of writing implements with computing devices, which are covered by group **B43K 29/08**; [new.]
    - control functions derived from simulators, in general, which are covered by class **G05**, although such functions may be covered by the subclass of this class for the device controlled;
    - measurement or analysis of an individual variable to serve as an input to a simulator, which is covered by class **G01**;
    - simulators regarded as teaching or training devices which is the case if they give perceptible sensations having a likeness to the sensations a student would experience in reality in response to actions taken by him. Such simulators are covered by class **G09**;
    - components of simulators, if identical with real devices or machines, which



are covered by the relevant subclass for these devices or machines (and not by class **G09**).

3. In this class, the following terms or expressions are used with the meanings indicated:
  - "data" is used as the synonym of "information". Therefore, the term "information" is not used in subclasses **G06C**, **G06F** or **G06Q**;
  - "calculating or computing" includes, *inter alia*, operations on numerical values and on data expressed in numerical form. Of these terms "computing" is used throughout the class;
  - "computation" is derived from this interpretation of "computing". In the French language the term "calcul" will serve for either term;
  - "simulator" is a device which may use the same time scale as the real device or operate on an expanded or compressed time scale. In interpreting this term models of real devices to reduced or expanded scales are not regarded as simulators;
  - "record carrier" means a body, such as a cylinder, disc, card, tape, or wire, capable of permanently holding information, which can be read-off by a sensing element movable relative to the recorded information.
4. Attention is drawn to the Notes following the title of section G, especially as regards the definition of the term "variable".

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ANNEX 178E **G06F** [ **Project-Rapporteur : A019/EP** ] <**CE42**>

CL C 19/00 **Digital computing or data processing equipment or methods, specially adapted for specific applications** (**G06F 17/00** takes precedence; data processing systems or methods specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes **G06Q**)

AL N 19/10 • **Bioinformatics, i.e. methods or systems for genetic or protein-related data processing in computational molecular biology** ( *in silico* methods of screening virtual chemical libraries **C40B 30/02**; *in silico* or mathematical methods of creating virtual chemical libraries **C40B 50/02**)

AL N Note 19/10 1. This group also covers bioinformatics methods or systems where digital data processing is inherent or implicit, but not explicitly mentioned. [new.]  
2. In this group, the following term is used with the meaning indicated:

- "systems" includes apparatus. [new.]

  
3. In this group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place. [new.]

AL N 19/12 • • for modelling or simulation in systems biology, e.g. probabilistic or dynamic models, gene-regulatory networks, protein interaction networks or metabolic networks

AL N 19/14 • • for phylogeny or evolution, e.g. evolutionarily conserved regions determination or phylogenetic tree construction

- AL N 19/16 • • *for molecular structure, e.g. structure alignment, structural or functional relations, protein folding, domain topologies, drug targeting using structure data, involving two-dimensional or three-dimensional structures*
- AL N 19/18 • • *for functional genomics or proteomics, e.g. genotype-phenotype associations, linkage disequilibrium, population genetics, binding site identification, mutagenesis, genotyping or genome annotation, protein-protein interactions or protein-nucleic acid interactions*
- AL N 19/20 • • *for hybridisation or gene expression, e.g. microarrays, sequencing by hybridisation, normalisation, profiling, noise correction models, expression ratio estimation, probe design or probe optimisation*
- AL N 19/22 • • *for sequence comparison involving nucleotides or amino acids, e.g. homology search, motif or SNP [Single-Nucleotide Polymorphism] discovery or sequence alignment*
- AL N 19/24 • • *for machine learning, data mining or biostatistics, e.g. pattern finding, knowledge discovery, rule extraction, correlation, clustering or classification*
- AL N 19/26 • • *for data visualisation, e.g. graphics generation, display of maps or networks or other visual representations*
- AL N 19/28 • • *for programming tools or database systems, e.g. ontologies, heterogeneous data integration, data warehousing or computing architectures*

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**ANNEX 179E G06M [ Project-Rapporteur : M099/IB ] <CE42>**

CL N 15/00 *Counting of objects, not otherwise provided for*

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**ANNEX 180E G06T [ Project-Rapporteur : A012/EP ] <CE42>**

CL M Subclass  
index

GENERAL PURPOSE IMAGE DATA PROCESSING	<b>1/00</b>
GEOMETRIC IMAGE TRANSFORMATION IN THE PLANE OF THE IMAGE	<b>3/00</b>
IMAGE ENHANCEMENT OR RESTORATION	<b>5/00</b>
IMAGE ANALYSIS	<b>7/00</b>
IMAGE CODING	<b>9/00</b>
2D [TWO DIMENSIONAL] IMAGE GENERATION	<b>11/00</b>
ANIMATION	<b>13/00</b>
3D [THREE DIMENSIONAL] IMAGE RENDERING	<b>15/00</b>
3D MODELLING FOR COMPUTER GRAPHICS	<b>17/00</b>
MANIPULATING 3D MODELS OR IMAGES FOR COMPUTER GRAPHICS	<b>19/00</b>

CL M 11/00 **2D [Two Dimensional] image generation**

- CL M 11/20 • Drawing from basic elements, e.g. lines or circles
- CL M 11/40 • Filling a planar surface by adding surface attributes, e.g. colour or texture
- CL 11/60 < Reinsert original entry 11/60 >
- CL 11/80 < Reinsert original entry 11/80 >
- CL C **13/00 Animation**
- AL N 13/20 • *3D [Three Dimensional] animation*
- AL N 13/40 • • *of characters, e.g. humans, animals or virtual beings*
- AL N 13/60 • • *of natural phenomena, e.g. rain, snow, water or plants*
- AL N 13/80 • *2D animation, e.g. using sprites*
- CL M **15/00 3D [Three Dimensional] image rendering**
- AL N 15/02 • *Non-photorealistic rendering*
- AL N 15/04 • *Texture mapping*
- AL N 15/06 • *Ray-tracing*
- AL N 15/08 • *Volume rendering*
- CL 15/10 < Reinsert original entry 15/10 >
- CL M 15/50 • Lighting effects
- AL N 15/55 • • *Radiosity*
- AL M 15/60 • • Shadow generation
- CL D 15/70 (transferred to **G06T 13/00-G06T 13/60** )
- AL N 15/80 • • *Shading*
- AL N 15/83 • • • *Phong shading*
- AL N 15/87 • • • *Gouraud shading*
- CL M **17/00 3D modelling for computer graphics**
- AL N 17/05 • *Geographic models*
- CL M 17/10 • Volume description, e.g. cylinders, cubes or using CSG [Constructive Solid Geometry]
- CL M 17/20 • Wire-frame description, e.g. polygonalisation or tessellation

- CL M 17/30 • Surface description, e.g. polynomial surface description
- CL D 17/40 (transferred to [G06T 19/00-G06T 19/20](#) )
- CL D 17/50 (transferred to [G06T 17/05](#) )
- CL N **19/00 Manipulating 3D models or images for computer graphics**
- AL N 19/20 • *Editing of 3D images, e.g. changing shapes or colours, aligning objects or positioning parts*

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ANNEX 181E G07B [ Project-Rapporteur : C449/GB ] <CE42>

CL M Title **TICKET-ISSUING APPARATUS; TAXIMETERS; ARRANGEMENTS OR APPARATUS FOR COLLECTING FARES, TOLLS OR ENTRANCE FEES AT ONE OR MORE CONTROL POINTS; FRANKING APPARATUS**

CL M Subclass  
index

MACHINES FOR PRINTING OR ISSUING TICKETS; DETAILS THEREOF	<a href="#">1/00</a> , <a href="#">3/00</a> ; <a href="#">5/00</a>
OTHER APPARATUS OR SYSTEMS CONCERNING TICKETS	
Holders; punches; validating; cancelling	<a href="#">7/00</a> ; <a href="#">9/00</a> ; <a href="#">11/00</a>
TAXIMETERS	<a href="#">13/00</a>
ARRANGEMENTS OR APPARATUS FOR COLLECTING FARES, TOLLS OR ENTRANCE FEES AT ONE OR MORE CONTROL POINTS	<a href="#">15/00</a>
FRANKING APPARATUS	<a href="#">17/00</a>

CL C **15/00 Arrangements or apparatus for collecting fares, tolls or entrance fees at one or more control points** (*handling coins or paper currency [G07D](#); apparatus for vending or hiring articles or services activated by coins, credit cards, paper currency or the like [G07F 7/00](#), [G07F 17/00](#)*)

CL N *Note* **15/00** *Data processing aspects of payment systems or protocols relating to toll, entrance fee or fare collection, e.g. in road pricing or congestion charging, are also classified in [G06Q 20/00](#). [new.]*

CL C **15/02** • *taking into account a variable factor such as distance or time, e.g. for passenger transport, parking systems or car rental systems ([G07B 15/06](#) takes precedence; taximeters [G07B 13/00](#); parking meters per se [G07F 17/24](#))*

CL N **15/06** • *Arrangements for road pricing or congestion charging of vehicles or vehicle users, e.g. automatic toll systems*

CL N *Note* **15/06** *This group covers the identification or tracking of vehicles or vehicle users for the purpose of road pricing or congestion charging, which means that vehicles or vehicle users are not necessarily channelled through fixed control points, e.g. toll booths or overhead gantries, but may be detected at a number of places when they travel in normal fashion in a pre-*

*defined locality, e.g. a defined area in a city centre or an expressway, and where the information so generated is then used to determine a charge to be paid. [new.]*

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**ANNEX 182E G07D [ Project-Rapporteur : C447/EP ] <CE42>**

**CL M Title HANDLING OF COINS OR OF PAPER CURRENCY OR SIMILAR VALUABLE PAPERS, e.g. TESTING, SORTING BY DENOMINATIONS, COUNTING, DISPENSING, CHANGING OR DEPOSITING**

**CL M Note** In this subclass, the following terms or expressions are used with the meaning indicated:  
**G07D**

- "coins" also covers tokens of similar nature;
- "*paper currency or similar valuable papers*" covers banknotes, bills, cheques, vouchers, securities, bonds or the like. **[new.]**

**CL M 1/00 Coin dispensers**

**CL M 1/02** • giving change

**CL M 3/00 Sorting a mixed bulk of coins into denominations**

**AL M 3/02** • Sorting coins by means of graded apertures

**AL M 3/12** • Sorting coins by means of stepped deflectors

**AL M 3/14** • Apparatus driven under control of coin-sensing elements

**AL M 3/16** • in combination with coin-counting

**CL M 5/00 Testing specially adapted to determine the identity or genuineness of coins, e.g. for segregating coins which are unacceptable or alien to a currency**

**CL M 7/00 Testing specially adapted to determine the identity or genuineness of paper currency or similar valuable papers, e.g. for segregating those which are unacceptable or alien to a currency**

**CL M 9/00 Counting coins** (in combination with coin-sorting **G07D 3/16**) ; **Handling of coins not provided for in the other groups of this subclass**

**CL M 9/04** • Hand- or motor-driven devices for counting coins

**CL M 11/00 Devices accepting coins or paper currency, e.g. depositing machines** (apparatus freed or actuated by coins or the like **G07F**; apparatus freed or actuated by paper currency **G07F 7/04**; complete banking systems **G07F 19/00**)

**CL M 13/00 Handling of coins or of paper currency or similar valuable papers, characterised by a combination of mechanisms not covered by a single one of groups **G07D 1/00-G07D 11/00****

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**ANNEX 183E G07F [ Project-Rapporteur : A014/EP ] <CE42>**

AL M 17/28 • for radio apparatus

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**ANNEX 184E G08 [ Project-Rapporteur : M034/IB ] <CE42>**

CL M Title **SIGNALLING**

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**ANNEX 185E G08C [ Project-Rapporteur : D181/BR ] <CE42>**

CL M Title **TRANSMISSION SYSTEMS FOR MEASURED VALUES, CONTROL OR SIMILAR SIGNALS** (fluid pressure transmission systems **F15B**; mechanical means for transferring the output of a sensing member into a different variable **G01D 5/00**; mechanical control systems **G05G**)

CL M **13/00 Arrangements for influencing the relationship between signals at input and output, e.g. differentiating, delaying**

CL M **15/00 Arrangements characterised by the use of multiplexing for the transmission of a plurality of signals over a common path**

CL M 19/36 • using optical means to convert the input signal

CL M 19/38 • using dynamo-electric devices (operated by pulses **G08C 19/20**)

CL M **21/00 Systems for transmitting the position of an object with respect to a predetermined reference system, e.g. tele-autographic system**

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**ANNEX 186E G08G [ Project-Rapporteur : C449/GB ] <CE42>**

CL M 1/01 • Detecting movement of traffic to be counted or controlled (**G08G 1/07-G08G 1/14** take precedence; road pricing or congestion charging of vehicles or vehicle users **G07B 15/06**)

CL M 1/065 • by counting the vehicles in a section of the road or in a parking area, i.e. comparing incoming count with outgoing count (road pricing or congestion charging of vehicles or vehicle users **G07B 15/06**)

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**ANNEX 187E G21B [ Project-Rapporteur : D187/GB ] <CE42>**

CL M Title **FUSION REACTORS** (uncontrolled fusion, applications thereof **G21J**)

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**ANNEX 188E G21D [ Project-Rapporteur : D189/GB ] <CE42>**

CL M Title **NUCLEAR POWER PLANT**

AL M 1/04 · Pumping arrangements (by means within the reactor pressure vessel **G21C 15/24**)

CL M **3/00 Control of nuclear power plant** (control of nuclear reaction **G21C 7/00**)

AL M 3/06 · · responsive to faults within the plant (in the reactor **G21C 9/02**)

AL M 7/04 · using thermoelectric elements (structural combination of fuel element with thermoelectric element **G21C 3/40**)

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**ANNEX 189E G21F [ Project-Rapporteur : D190/GB ] <CE42>**

CL M Title **PROTECTION AGAINST X-RADIATION, GAMMA RADIATION, CORPUSCULAR RADIATION OR PARTICLE BOMBARDMENT; TREATING RADIOACTIVELY CONTAMINATED MATERIAL; DECONTAMINATION ARRANGEMENTS THEREFOR** (radiation protection by pharmaceutical means **A61K 8/00**, **A61Q 17/00-A61Q 17/04**; in cosmonautic vehicles **B64G 1/54**; combined with a reactor **G21C 11/00**; combined with X-ray tubes **H01J 35/16**; combined with X-ray apparatus **H05G 1/02**)

AL M 3/02 · Clothing

CL M **7/00 Shielded cells or rooms**

AL M 7/04 · Shielded glove-boxes

AL M 7/06 · Structural combination with remotely-controlled apparatus, e.g. with manipulators

CL M 9/06 · · Processing

CL M 9/30 · · Processing

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**ANNEX 190E G21G [ Project-Rapporteur : D143/GB ] <CE42>**

CL M Title **CONVERSION OF CHEMICAL ELEMENTS; RADIOACTIVE SOURCES**

CL M **1/00 Arrangements for converting chemical elements by electromagnetic radiation, corpuscular radiation, or particle bombardment, e.g. producing radioactive isotopes** (by thermonuclear reactions in nuclear reactors **G21B**; conversion of nuclear fuel in nuclear reactors **G21C**)

AL M 1/12 · · by electromagnetic irradiation, e.g. with gamma or X-rays (irradiation devices **G21K 5/00**)

CL M 4/00 **Radioactive sources**

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ANNEX 191E G21H [ Project-Rapporteur : D191/GB ] <CE42>

CL M Title **OBTAINING ENERGY FROM RADIOACTIVE SOURCES; APPLICATIONS OF RADIATION FROM RADIOACTIVE SOURCES; UTILISING COSMIC RADIATION** (fusion reactors [G21B](#); nuclear reactors [G21C](#))

AL M 1/04 • Cells using secondary emission induced by alpha radiation, beta radiation, or gamma radiation

AL M 1/08 • Cells in which radiation ionises a gas in the presence of a junction of two dissimilar metals, i.e. contact potential-difference cells

AL M 1/10 • Cells in which radiation heats a thermoelectric junction or a thermionic converter

CL M 3/00 **Arrangements for direct conversion of radiation energy from radioactive sources into forms of energy other than electric energy, e.g. light**

AL M 5/00 **Applications of radiation from radioactive sources or arrangements therefor** (producing mutation in plants [A01H 1/06](#); preservation of dairy products [A23C 3/07](#); preservation of foodstuffs [A23L 3/26](#); for therapeutic purposes [A61N 5/10](#); in chemical, physical or physicochemical processes in general [B01J 19/08](#); in electrostatic separation [B03C 3/38](#); for after-treatment of coatings applied as liquids or other fluent materials [B05D 3/06](#); for action between electric vehicles and tracked apparatus [B61L 1/10](#), [B61L 3/06](#); for preparation of organic chemical compounds [C07](#), [C08F 2/46](#); for treating macromolecular substances or articles made therefrom [B29C 71/04](#), [C08J 3/28](#), [C08J 7/18](#); for cracking of hydrocarbon oils [C10G 15/10](#), [C10G 32/04](#); for reforming naphtha [C10G 35/16](#); preservation or ageing of products obtained from fermentation processes [C12H 1/06](#), [C12H 1/16](#); for bleaching fibres [D06L 3/04](#); measuring [G01T](#); irradiation devices, gamma- or X-ray microscopes [G21K](#); in discharge tubes [H01J](#); apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere, [H01T 23/00](#); for carrying-off electrostatic charges [H05F 3/06](#))

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ANNEX 192E H01R [ Project-Rapporteur : A020/JP ] <CE42>

CL M 4/00 **Electrically-conductive connections between two or more conductive members in direct contact, i.e. touching one another; Means for effecting or maintaining such contact; Electrically-conductive connections having two or more spaced connecting locations for conductors and using contact members penetrating insulation** (details of contacts of coupling devices [H01R 13/00](#); coupling devices [H01R 12/70](#), [H01R 24/00-H01R 33/00](#); flexible or turnable line connectors [H01R 35/00](#) non-rotary current collectors [H01R 41/00](#))

AL M 4/02 • Soldered or welded connections ([H01R 4/62](#), [H01R 12/59](#), [H01R 12/65](#) take precedence)

CL M 9/00 **Structural associations of a plurality of mutually-insulated electrical connecting elements, e.g. terminal strips, terminal blocks; Terminals or binding posts mounted upon a base or in a case; Bases therefor** (details of direct connections or connections



using contact members penetrating insulation **H01R 4/00**; specially adapted for printed circuits, flat or ribbon cables, or like generally planar structures **H01R 12/00**; coupling devices **H01R 12/70**, **H01R 24/00-H01R 33/00**; flexible or turnable line connectors **H01R 35/00**)

- CL M **11/00 Individual connecting elements providing two or more spaced connecting locations for conductive members which are, or may be, thereby interconnected, e.g. end pieces for wires or cables supported by the wire or cable and having means for facilitating electrical connection to some other wire, terminal, or conductive member, blocks of binding posts** (connections between members in direct contact **H01R 4/00**; structural associations of a plurality of mutually-insulated electrical connecting elements **H01R 9/00**; coupling devices **H01R 12/70**, **H01R 24/00-H01R 29/00**, **H01R 33/00**; flexible or turnable line connectors **H01R 35/00**)
- AL D 12/02- (transferred to **H01R 12/50-H01R 12/91** )  
12/38
- AL N 12/50 • *Fixed connections*
- AL N 12/51 • • *for rigid printed circuits or like structures*
- AL N 12/52 • • • *connecting to other rigid printed circuits or like structures*
- AL N 12/53 • • • *connecting to cables except for flat or ribbon cables*
- AL N 12/55 • • • *characterised by the terminals*
- AL N 12/57 • • • • *surface mounting terminals*
- AL N 12/58 • • • • *terminals for insertion into holes*
- AL N 12/59 • • *for flexible printed circuits, flat or ribbon cables or like structures*
- AL N 12/61 • • • *connecting to flexible printed circuits, flat or ribbon cables or like structures*
- AL N 12/62 • • • *connecting to rigid printed circuits or like structures*
- AL N 12/63 • • • *connecting to another shape cable*
- AL N 12/65 • • • *characterised by the terminal*
- AL N 12/67 • • • • *insulation penetrating terminals*
- AL N 12/68 • • • • • *comprising deformable portions*
- AL N 12/69 • • • • *deformable terminals e.g. crimping terminals*
- AL N 12/70 • *Coupling devices*
- AL N 12/71 • • *for rigid printing circuits or like structures*
- AL N 12/72 • • • *coupling with the edge of the rigid printed circuits or like structures*

- AL N 12/73 . . . . connecting to other rigid printed circuits or like structures
- AL N 12/75 . . . . connecting to cables except for flat or ribbon cables
- AL N 12/77 . . . . for flexible printed circuits, flat or ribbon cables or like structures
- AL N 12/78 . . . . connecting to other flexible printed circuits, flat or ribbon cables or like structures
- AL N 12/79 . . . . connecting to rigid printed circuits or like structures
- AL N 12/81 . . . . connecting to another cable except for flat or ribbon cable
- AL N 12/82 . . . . connected with low or zero insertion force
- AL N 12/83 . . . . connected with pivoting of printed circuits or like after insertion
- AL N 12/85 . . . . contact pressure producing means, contacts activated after insertion of printed circuits or like structures
- AL N 12/87 . . . . acting automatically by insertion of rigid printed or like structures
- AL N 12/88 . . . . acting manually by rotating or pivoting connector housing parts
- AL N 12/89 . . . . acting manually by moving connector housing parts linearly e.g. slider
- AL N 12/91 . . . . allowing relative movement between coupling parts e.g. floating or self aligning
- CL M 13/00 **Details of coupling devices of the kinds covered by groups [H01R 12/70](#) or [H01R 24/00-H01R 33/00](#)**
- 

**ANNEX 193E H01R [ Project-Rapporteur : A021/US ] <CE42>**

- AL C 13/646 . . . . specially adapted for high-frequency, e.g. structures providing an impedance match or phase match (non-coaxed protective earth or shield arrangements [H01R 13/648-H01R 13/6599](#); coaxed connectors specifically adapted for high frequency [H01R 24/40-H01R 24/56](#))
- AL N 13/6461 . . . . Means for preventing cross-talk
- AL N 13/6463 . . . . using twisted pairs of wires
- AL N 13/6464 . . . . by adding capacitive elements
- AL N 13/6466 . . . . on substrates, e.g. PCBs [Printed Circuit Boards]
- AL N 13/6467 . . . . by cross-over of signal conductors
- AL N 13/6469 . . . . on substrates

- AL N 13/6471 . . . *by special arrangement of ground and signal conductors, e.g. GSGS [Ground-Signal-Ground-Signal]*
- AL N 13/6473 . . . *Impedance matching*
- AL N 13/6474 . . . *by variation of conductive properties, e.g. by variation of dimensions*
- AL N 13/6476 . . . . . *by making an aperture, e.g. a hole*
- AL N 13/6477 . . . . . *by variation of dielectric properties*
- AL D 13/6479 < Delete new entry >
- AL C 13/648 . *Protective earth or shield arrangements on coupling devices (coaxially arranged shields [H01R 24/38](#))*
- CL C 13/658 . . . *High frequency shielding arrangements, e.g. against EMI [Electro-Magnetic Interference] or EMP [Electro-Magnetic Pulse]*
- AL N 13/6581 . . . . . *Shield structure*
- AL N 13/6582 . . . . . *with resilient means for engaging mating connector*
- AL N 13/6583 . . . . . *with separate conductive resilient members between mating shield members*
- AL N 13/6584 . . . . . *formed by conductive elastomeric members, e.g. flat gaskets or O-rings*
- AL N 13/6585 . . . . . *Shielding material individually surrounding or interposed between mutually spaced contacts*
- AL N 13/6586 . . . . . *for separating multiple connector modules*
- AL N 13/6587 . . . . . *for mounting on PCBs*
- AL N 13/6588 . . . . . *with through openings for individual contacts*
- AL N 13/6589 . . . . . *with wires separated by conductive housing parts*
- AL N 13/659 . . . . . *with plural ports for distinct connectors*
- AL N 13/6591 . . . . . *Specific features or arrangements of connection of shield to conductive members*
- AL N 13/6592 . . . . . *the conductive member being a shielded cable*
- AL N 13/6593 . . . . . *the shield being composed of different pieces*
- AL N 13/6594 . . . . . *the shield being mounted on a PCB and connected to conductive members*
- AL N 13/6595 . . . . . *with separate members fixing the shield to the PCB*
- AL N 13/6596 . . . . . *the conductive member being a metal grounding panel*
- AL N 13/6597 . . . . . *the conductive member being a contact of the connector*

- AL N 13/6598 . . . *Shield material*
- AL N 13/6599 . . . . *Dielectric material made conductive, e.g. plastic material coated with metal*
- CL C 13/66 . *Structural association with built-in electrical component (coupling devices having concentrically or coaxially-arranged contacts [H01R 24/38-H01R 24/56](#))*
- CL C 13/68 . . *with built-in fuse*
- AL N 13/684 . . . . *the fuse being removable*
- AL N 13/688 . . . . *with housing part adapted for accessing the fuse*
- AL N 13/692 . . . . . *Turnable housing part*
- AL N 13/696 . . . . *the fuse being integral with the terminal, e.g. pin or socket*
- AL M 13/717 . . *with built-in light source*
- CL C 13/719 . . *specially adapted for high frequency, e.g. with filters*
- AL N 13/7193 . . . . *with ferrite filters*
- AL N 13/7195 . . . . *with planar filters with openings for contacts*
- AL N 13/7197 . . . . *with filters integral with or fitted onto contacts, e.g. tubular filters*

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**ANNEX 194E H01R** [ **Project-Rapporteur : A022/EP** ] <CE42>

- CL C 24/00 ***Two-part coupling devices, or either of their cooperating parts, characterised by their overall structure (specially adapted for printed circuits, flat or ribbon cables, or like structures [H01R 12/00](#); specially adapted for supporting apparatus [H01R 33/00](#))***
- AL D 24/02 (transferred to [H01R 24/38](#) )
- AL D 24/04 (transferred to [H01R 24/58](#) )
- AL D 24/06 (transferred to [H01R 24/28](#),[H01R 24/66](#) )
- AL D 24/08 (transferred to [H01R 24/30](#),[H01R 24/70](#) )
- AL D 24/10 (transferred to [H01R 24/20](#),[H01R 24/76](#) )
- AL D 24/12 (transferred to [H01R 24/22](#),[H01R 24/78](#) )
- AL D 24/14 (transferred to [H01R 24/66](#) )
- AL D 24/16 (transferred to [H01R 24/76](#) )

- AL D 24/18 (transferred to **H01R 24/84** )
- AL N 24/20 • *Coupling parts carrying sockets, clips or analogous contacts and secured only to wire or cable*
- AL N 24/22 • • *with additional earth or shield contacts*
- AL N 24/28 • *Coupling parts carrying pins, blades or analogous contacts and secured only to wire or cable*
- AL N 24/30 • • *with additional earth or shield contacts*
- AL N 24/38 • *having concentrically or coaxially arranged contacts*
- AL N 24/40 • • *specially adapted for high frequency*
- AL N 24/42 • • • *comprising impedance matching means or electrical components, e.g. filters or switches*
- AL N 24/44 • • • • *comprising impedance matching means*
- AL N 24/46 • • • • *comprising switches*
- AL N 24/48 • • • • *comprising protection devices, e.g. overvoltage protection*
- AL N 24/50 • • • *mounted on a PCB [Printed Circuit Board]*
- AL N 24/52 • • • *mounted in or to a panel or structure*
- AL N 24/54 • • • *Intermediate parts, e.g. adapters, splitters or elbows*
- AL N 24/56 • • • *specially adapted for specific shapes of cables, e.g. corrugated cables, twisted pair cables, cables with two screens or hollow cables*
- AL N 24/58 • *Contacts spaced along longitudinal axis of engagement*
- AL N 24/60 • *Contacts spaced along planar side wall transverse to longitudinal axis of engagement*
- AL N 24/62 • • *Sliding engagements with one side only, e.g. modular jack coupling devices*
- AL N 24/64 • • • *for high frequency, e.g. RJ 45*
- AL N 24/66 • *with pins, blades or analogous contacts and secured to apparatus or structure, e.g. to a wall*
- AL N 24/68 • • *mounted on directly pluggable apparatus*
- AL N 24/70 • • *with additional earth or shield contacts*
- AL N 24/76 • *with sockets, clips or analogous contacts and secured to apparatus or structure, e.g. to a wall*
- AL N 24/78 • • *with additional earth or shield contacts*

AL N 24/84 • *Hermaphroditic coupling devices*

AL N 24/86 • *Parallel contacts arranged about a common axis*

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**ANNEX 195E H01T** [ **Project-Rapporteur : C453/EP** ] <CE42>

AL M 4/10 • having a single gap or a plurality of gaps in parallel (sparking plugs **H01T 13/00**)

AL C **13/00 Sparking plugs**

AL N 13/58 • *Testing (testing characteristics of the spark in internal-combustion engine ignition **F02P 17/12**)*

AL N 13/60 • • *of electrical properties*

AL M 21/04 • • *Cleaning (means for self-cleaning **H01T 13/14**; abrasive blasting devices for cleaning sparking plugs **B24C 3/34**)*

AL M 21/06 • *Adjustment of spark gaps (sparking plugs having movable electrodes for adjusting the gap **H01T 13/26**)*

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**ANNEX 196E H03K** [ **Project-Rapporteur : M010/IB** ] <CE42>

- CL M Note  
H03K
1. This subclass covers :
    - methods, circuits, devices, or apparatus using active elements operating in a discontinuous or switching manner for generating, counting, amplifying, shaping, modulating, demodulating, or otherwise manipulating signals;
    - electronic switching not involving contact-making and breaking;
    - logic circuits handling electric pulses.
  2. In this subclass, the following expression is used with the meaning indicated:
    - "active element" exercises control over the conversion of input energy into an oscillation or a discontinuous flow of energy.
  3. In this subclass, where the claims of a patent document are not limited to a specific circuit element, the document is classified at least according to the elements used in the described embodiment. [6]
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**ANNEX 197E H04B** [ **Project-Rapporteur : A027/EP** ] <CE42>

CL C 1/69 • *Spread spectrum techniques*

CL N Note  
1/69 *When classifying in this group, any aspect of code division multiplexing, which is considered to represent information of interest for search, may also be classified in group **H04J 13/00**. [new.]*

- CL N 1/692 · · *Hybrid techniques using combinations of two or more spread spectrum techniques*
- CL C 1/707 · · *using direct sequence modulation*
- AL N 1/7073 · · · *Synchronisation aspects*
- AL N 1/7075 · · · · *with code phase acquisition*
- AL N 1/7077 · · · · · *Multi-step acquisition, e.g. multi-dwell, coarse-fine or validation*
- AL N 1/708 · · · · · *Parallel implementation*
- AL N 1/7083 · · · · · *Cell search, e.g. using a three-step approach*
- AL N 1/7085 · · · · · *using a code tracking loop, e.g. a delay-locked loop*
- AL N 1/7087 · · · · · *Carrier synchronisation aspects*
- AL N 1/709 · · · · *Correlator structure*
- AL N 1/7093 · · · · · *Matched filter type*
- AL N 1/7095 · · · · · *Sliding correlator type*
- AL N 1/7097 · · · · *Interference-related aspects*
- AL N 1/710 · · · · · *the interference being narrowband interference*
- AL N 1/7103 · · · · · *the interference being multiple access interference*
- AL N 1/7105 · · · · · *Joint detection techniques, e.g. linear detectors*
- AL N 1/7107 · · · · · *Subtractive interference cancellation*
- AL N 1/711 · · · · · *the interference being multi-path interference*
- AL N 1/7113 · · · · · *Determination of path profile*
- AL N 1/7115 · · · · · *Constructive combining of multi-path signals, i.e. RAKE receivers*
- AL N 1/7117 · · · · · · *Selection, re-selection, allocation or re-allocation of paths to fingers, e.g. timing offset control of allocated fingers*
- AL N 1/712 · · · · · · *Weighting of fingers for combining, e.g. amplitude control or phase rotation using an inner loop*
- AL C 1/713 · · · *using frequency hopping*
- AL N 1/7136 · · · · *Arrangements for generation of hop frequencies, e.g. using a bank of frequency sources, using continuous tuning or using a transform*
- AL N 1/7143 · · · · *Arrangements for generation of hop patterns*

- AL N 1/715 · · · *Interference-related aspects*
  - AL N 1/7156 · · · *Arrangements for sequence synchronisation*
  - AL N 1/7163 · · · *using impulse radio*
  - AL N 1/717 · · · *Pulse-related aspects*
  - AL N 1/7176 · · · *Data mapping, e.g. modulation*
  - AL N 1/7183 · · · *Synchronisation*
  - AL N 1/719 · · · *Interference-related aspects*
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**ANNEX 198E H04J [ Project-Rapporteur : D193/NO ] <CE42>**

- CL M **Title MULTIPLEX COMMUNICATION** (peculiar to transmission of digital information **H04L 5/00**; systems for the simultaneous or sequential transmission of more than one television signal **H04N 7/08**; in exchanges **H04Q 11/00**)
  - CL M **1/00 Frequency-division multiplex systems** (**H04J 14/02** takes precedence)
  - CL M **3/00 Time-division multiplex systems** (**H04J 14/08** takes precedence)
  - CL M 3/02 · Details
  - CL M 3/24 · in which the allocation is indicated by an address (**H04J 3/17** takes precedence)
- 

**ANNEX 199E H04J [ Project-Rapporteur : A027/EP ] <CE42>**

- CL C **13/00 Code division multiplex systems** (for frequency hopping **H04B 1/713**)
- CL N *Note* When classifying in this group, any aspect of spread spectrum techniques not specific to 13/00 frequency hopping, and which is considered to represent information of interest for search, may also be classified in group **H04B 1/69**. **[new.]**
- CL D 13/02 (transferred to **H04J 13/00-H04J 13/22** )
- AL D 13/04 (transferred to **H04J 13/00-H04J 13/22** )
- AL D 13/06 (transferred to **H04J 13/00-H04J 13/22** )
- CL N 13/10 · *Code generation*
- AL N 13/12 · · *Generation of orthogonal codes*
- AL N 13/14 · · *Generation of codes with a zero correlation zone*



CL N 13/16 • Code allocation

AL N 13/18 • • Allocation of orthogonal codes

AL N 13/20 • • • having an orthogonal variable spreading factor [OVSF]

AL N 13/22 • • Allocation of codes with a zero correlation zone

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**ANNEX 200E H04J [ Project-Rapporteur : D193/NO ] <CE42>**

CL M 14/00 **Optical multiplex systems**

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**ANNEX 201E H04K [ Project-Rapporteur : A027/EP ] <CE42>**

CL M 1/00 **Secret communication** (ciphering or deciphering apparatus per se **G09C**; systems with reduced bandwidth or suppressed carrier **H04B 1/66**; spread spectrum techniques **H04B 1/69**; by using a sub-carrier **H04B 14/08**; by multiplexing **H04J**; transmission systems for secret digital information **H04L 9/00**; secret or subscription television systems **H04N 7/16**, **H04N 21/00**)

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**ANNEX 202E H04L [ Project-Rapporteur : A027/EP ] <CE42>**

CL M 9/00 **Arrangements for secret or secure communication** (spread spectrum techniques **H04B 1/69**)

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**ANNEX 203E H04M [ Project-Rapporteur : A022/EP ] <CE42>**

AL M 5/02 • Constructional details (jacks, jack-plugs **H01R 24/58**)

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**ANNEX 204E H04N [ Project-Rapporteur : A014/EP ] <CE42>**

CL M **Title PICTORIAL COMMUNICATION, e.g. TELEVISION**

CL M 1/032 • • for picture-information reproduction

CL M 1/21 • Intermediate information storage (**H04N 1/387**, **H04N 1/41** take precedence)

CL M 1/387 • Composing, repositioning or otherwise modifying originals

CL M 1/403 · · Discrimination between the two tones in the picture signal of a two-tone original

CL M 3/02 · by optical-mechanical means only ([H04N 3/36](#) takes precedence)

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**ANNEX 205E H04N [ Project-Rapporteur : A029/EP ] <CE42>**

CL C 3/14 · · *by means of electrically scanned solid-state devices (for picture generation [H04N 5/335](#))*

CL D 3/15 (transferred to [H04N 5/335](#) )

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**ANNEX 206E H04N [ Project-Rapporteur : A014/EP ] <CE42>**

CL M 3/16 · · by deflecting electron beam in cathode-ray tube

AL M 3/185 · · · · Maintaining dc voltage constant

CL M 3/26 · · · Modifications of scanning arrangements to improve focusing

CL M 3/27 · · · Circuits special to multi-standard receivers

CL C 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](#))*

CL M 5/04 · Synchronising (for television systems using pulse code modulation [H04N 7/24](#))

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**ANNEX 207E H04N [ Project-Rapporteur : A029/EP ] <CE42>**

CL C 5/217 · · · *in picture signal generation (noise reduction or noise suppression involving solid-state image sensors [H04N 5/357](#))*

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**ANNEX 208E H04N [ Project-Rapporteur : A014/EP ] <CE42>**

CL M 5/232 · · · Devices for controlling television cameras, e.g. remote control ([H04N 5/235](#) takes precedence)

CL M 5/30 · Transforming light or analogous information into electric information ([H04N 5/222](#) takes precedence; scanning details [H04N 3/00](#))

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ANNEX 209E H04N [ Project-Rapporteur : A029/EP ] <CE42>

CL C 5/335 . . . using solid-state image sensors [SSIS] (**H04N 5/32**, **H04N 5/33** take precedence)

CL N Note In this group, at each hierarchical level, in the absence of an indication to the contrary, 5/335 classification is made in the first appropriate place. [**new.**]

AL N 5/341 . . . Extracting pixel data from an image sensor by controlling scanning circuits, e.g. by modifying the number of pixels having been sampled or to be sampled

AL N 5/343 . . . . by switching between different modes of operation using different resolutions or aspect ratios, e.g. between still and video mode or between interlaced and non-interlaced mode

AL N 5/345 . . . . by partially reading an SSIS array

AL N 5/347 . . . . by combining or binning pixels in SSIS

AL N 5/349 . . . . for increasing resolution by shifting the sensor relative to the scene

AL N 5/351 . . . Control of the SSIS depending on the scene, e.g. brightness or motion in the scene

AL N 5/353 . . . . Control of the integration time

AL N 5/355 . . . . Control of the dynamic range

AL N 5/357 . . . Noise processing, e.g. detecting, correcting, reducing or removing noise

AL N 5/359 . . . . applied to excess charges produced by the exposure, e.g. smear, blooming, ghost image, crosstalk or leakage between pixels

AL N 5/361 . . . . applied to dark current

AL N 5/363 . . . . applied to reset noise, e.g. KTC noise

AL N 5/365 . . . . applied to fixed-pattern noise, e.g. non-uniformity of response

AL N 5/367 . . . . . applied to defects, e.g. non-responsive pixels

AL N 5/369 . . . SSIS architecture; Circuitry associated therewith

AL N 5/372 . . . . Charge-coupled device [CCD] sensors; Time delay and integration [TDI] registers or shift registers specially adapted for SSIS

AL N 5/3722 . . . . . using frame interline transfer [FIT]

AL N 5/3725 . . . . . using frame transfer [FT]

AL N 5/3728 . . . . . using interline transfer [IT]

AL N 5/374 . . . . Addressed sensors, e.g. MOS or CMOS sensors

- AL N 5/3745 · · · · · *having additional components embedded within a pixel or connected to a group of pixels within a sensor matrix, e.g. memories, A/D converters, pixel amplifiers, shared circuits or shared components*
- AL N 5/376 · · · · · *Addressing circuits*
- AL N 5/378 · · · · · *Readout circuits, e.g. correlated double sampling [CDS] circuits, output amplifiers or A/D converters*

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**ANNEX 210E H04N [ Project-Rapporteur : A014/EP ] <CE42>**

- CL M 5/455 · · Demodulation-circuits
- CL M 5/50 · · Tuning indicators; Automatic tuning control
- CL M 5/63 · Generation or supply of power specially adapted for television receivers (generation of supply voltages in combination with electron beam deflecting **H04N 3/18**)
- CL M 5/72 · Modifying the appearance of television pictures by optical filters or diffusing screens
- CL M 5/74 · Projection arrangements for image reproduction, e.g. using eidophor
- CL M 5/76 · Television signal recording
- AL M 5/87 · · · Producing a motion picture film from a television signal
- CL M 5/913 · · · for scrambling
- CL M 5/917 · · · for bandwidth reduction (using pulse code modulation **H04N 7/24**)
- AL M 5/945 · · · · · for signals recorded by pulse code modulation
- CL C **7/00** **Television systems** (details **H04N 3/00**, **H04N 5/00**, specially adapted for colour television **H04N 11/00**; stereoscopic television systems **H04N 13/00**; selective content distribution **H04N 21/00**)
- CL C 7/16 · *Analogue secrecy systems; Analogue subscription systems*
- CL C 7/24 · *Systems for the transmission of television signals using pulse code modulation (**H04N 21/00** takes precedence)*
- CL M 7/38 · · · · · involving delta modulation
- CL M 7/42 · · · · · involving differential modulation
- CL C 7/52 · · *Systems for transmission of a pulse code modulated with one or more other pulse code modulated signals, e.g. an audio signal or a synchronizing signal (assembling of a multiplex stream by combining a video stream with other content or additional data, remultiplexing of multiplex streams, insertion of stuffing bits into the multiplex stream, assembling of a packetised elementary stream at server side **H04N 21/236**; disassembling of a multiplex stream, remultiplexing of multiplex streams, extraction or*

*processing of Service Information, disassembling of packetised elementary stream at client side **H04N 21/434**)*

AL D 7/58 (transferred to **H04N 21/2365,H04N 21/434** )

AL D 7/60 (transferred to **H04N 21/236,H04N 21/434** )

AL D 7/62 (transferred to **H04N 21/242,H04N 21/431,H04N 21/434,H04N 21/8547** )

AL M 9/097 . . . Optical arrangements associated therewith, e.g. for beam-splitting, for colour correction

CL M 9/10 . . using optical-mechanical scanning means only (**H04N 9/11** takes precedence)

CL M 9/12 . Picture reproducers (**H04N 9/11** takes precedence)

AL M 9/14 . . using optical-mechanical scanning means only

CL M 9/16 . . using cathode ray tubes (**H04N 9/11** takes precedence)

CL M 9/285 . . . . using quadrupole lenses

AL M 9/888 . . . . for signals recorded by pulse code modulation

CL N **21/00** *Selective content distribution, e.g. interactive television, VOD [Video On Demand] (broadcast communication **H04H**; arrangements, apparatus, circuits or systems for communication control or processing being characterised by a protocol **H04L 29/06**; real-time bi-directional transmission of motion video data **H04N 7/14**)*

- CL N *Note 21/00*
1. This group covers:
    - *interactive video distribution processes, systems, or elements thereof, which are characterised by point-to-multipoint system configurations, and which are mainly used for motion video data unidirectional distribution or delivery resulting from interactions between systems operators, e.g. access or service providers, or users e.g. subscribers, and system elements. [new.]*
    - *such systems include dedicated communication systems, such as television distribution systems, which primarily distribute or deliver motion video data in the manner indicated, which may, in addition, provide a framework for further, diverse data communications or services in either unidirectional or bi-directional form. However, video will occupy most of the downlink bandwidth in the distribution process. [new.]*
    - *typically, system operators interface with transmitter-side elements or users' interface with receiver-side elements in order to facilitate, through interaction with such elements, the dynamic control of data processing or data flow at various points in the system. This interaction is typically occasional or intermittent in nature. [new.]*
    - *processes, systems or elements thereof specially adapted to the generation, distribution and processing of data, which is either associated with video content, e.g. metadata, ratings, or related to the user or his environment and which has been actively or passively gathered. This data is either used to facilitate interaction or to alter or target the content. [new.]*

2. 2. *In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.* **[new.]**

- AL N 21/20 • *Servers specifically adapted for the distribution of content, e.g. VOD servers; Operations thereof*
- AL N 21/21 • • *Server components or server architectures*
- AL N 21/214 • • • *Specialised server platform, e.g. server located in an airplane, hotel or hospital*
- AL N 21/218 • • • *Source of audio or video content, e.g. local disk arrays*
- AL N 21/2183 • • • • *Cache memory*
- AL N 21/2187 • • • • *Live feed*
- AL N 21/222 • • • *Secondary servers, e.g. proxy server or cable television Head-end*
- AL N 21/2225 • • • • *Local VOD servers*
- AL N 21/226 • • • *Internal components of the server*
- AL N 21/23 • • *Processing of content or additional data; Elementary server operations; Server middleware*
- AL N 21/231 • • • *Content storage operation, e.g. caching movies for short term storage, replicating data over plural servers or prioritizing data for deletion*
- AL N 21/2312 • • • • *Data placement on disk arrays*
- AL N 21/2315 • • • • • *using interleaving*
- AL N 21/2318 • • • • • *using striping*
- AL N 21/232 • • • *Content retrieval operation within server, e.g. reading video streams from disk arrays*
- AL N 21/233 • • • *Processing of audio elementary streams*
- AL N 21/234 • • • *Processing of video elementary streams, e.g. splicing of video streams or manipulating MPEG-4 scene graphs (video encoding or transcoding processes per se [H04N 7/26](#))*
- AL N 21/2343 • • • • *involving reformatting operations of video signals for distribution or compliance with end-user requests or end-user device requirements*
- AL N 21/2347 • • • • *involving video stream encryption (arrangements for secret or secure communication [H04L 9/00](#); analogue secrecy systems [H04N 7/16](#))*
- AL N 21/235 • • • *Processing of additional data, e.g. scrambling of additional data or processing content descriptors*

- AL N 21/236 . . . *Assembling of a multiplex stream, e.g. transport stream, by combining a video stream with other content or additional data, e.g. inserting a URL [Uniform Resource Locator ] into a video stream, multiplexing software data into a video stream; Remultiplexing of multiplex streams; Insertion of stuffing bits into the multiplex stream, e.g. to obtain a constant bit-rate; Assembling of a packetised elementary stream*
- AL N 21/2362 . . . . *Generation or processing of SI [Service Information]*
- AL N 21/2365 . . . . *Multiplexing of several video streams*
- AL N 21/2368 . . . . *Multiplexing of audio and video streams*
- AL N 21/237 . . . *Communication with additional data server*
- AL N 21/238 . . . *Interfacing the downstream path of the transmission network, e.g. adapting the transmission rate of a video stream to network bandwidth; Processing of multiplex streams*
- AL N 21/2381 . . . . *Adapting the multiplex stream to a specific network, e.g. an IP [Internet Protocol] network*
- AL N 21/2383 . . . . *Channel coding of digital bit-stream, e.g. modulation*
- AL N 21/2385 . . . . *Channel allocation ([H04N 21/266](#) takes precedence) ; Bandwidth allocation ([H04N 21/24](#) takes precedence)*
- AL N 21/2387 . . . . *Stream processing in response to a playback request from an end-user, e.g. for trick-play*
- AL N 21/2389 . . . . *Multiplex stream processing, e.g. multiplex stream encrypting*
- AL N 21/239 . . . *Interfacing the upstream path of the transmission network, e.g. prioritizing client requests*
- AL N 21/24 . . . *Monitoring of processes or resources, e.g. monitoring of server load, available bandwidth or upstream requests*
- AL N 21/241 . . . *OS [Operating System] processes, e.g. server setup (arrangements for programme control [G06F 9/00](#))*
- AL N 21/242 . . . *Synchronization processes, e.g. processing of PCR [Program Clock References]*
- AL N 21/25 . . *Management operations performed by the server for facilitating the content distribution or administrating data related to end-users or client devices, e.g. end-user or client device authentication or learning user preferences for recommending movies*
- AL N 21/254 . . . *Management at additional data server, e.g. shopping server or rights management server*
- AL N 21/2543 . . . . *Billing*
- AL N 21/2547 . . . . *Third party billing, e.g. billing of advertiser*

- AL N 21/258 . . . *Client or end-user data management, e.g. managing client capabilities, user preferences or demographics or processing of multiple end-users preferences to derive collaborative data*
- AL N 21/262 . . . *Content or additional data distribution scheduling, e.g. sending additional data at off-peak times, updating software modules, calculating the carousel transmission frequency, delaying a video stream transmission or generating play-lists*
- AL N 21/266 . . . *Channel or content management, e.g. generation and management of keys and entitlement messages in a conditional access system or merging a VOD unicast channel into a multicast channel*
- AL N 21/2662 . . . . *Controlling the complexity of the video stream, e.g. by scaling the resolution or bitrate of the video stream based on the client capabilities*
- AL N 21/2665 . . . . *Gathering content from different sources, e.g. Internet and satellite*
- AL N 21/2668 . . . . *Creating a channel for a dedicated end-user group, e.g. by inserting targeted commercials into a video stream based on end-user profiles*
- AL N 21/27 . . *Server based end-user applications*
- AL N 21/274 . . . *Storing end-user specific content or additional data in response to end-user request*
- AL N 21/2743 . . . . *Video hosting of uploaded data from client*
- AL N 21/2747 . . . . *Remote storage of video programs received via the downstream path, e.g. from the server*
- AL N 21/278 . . . *Content descriptor database or directory service for end-user access*
- AL N 21/40 . *Client devices specifically adapted for the reception of, or interaction with, content, e.g. STB [set-top-box]; Operations thereof*
- AL N 21/41 . . *Structure of client; Structure of client peripherals*
- AL N 21/414 . . . *Specialised client platforms, e.g. receiver in car or embedded in a mobile appliance*
- AL N 21/4143 . . . . *PC [Personal Computer]*
- AL N 21/4147 . . . . *PVR [Personal Video Recorder] (**H04N 5/76** takes precedence)*
- AL N 21/418 . . . *External card to be used in combination with the client device, e.g. for conditional access*
- AL N 21/4185 . . . . *for payment*
- AL N 21/422 . . . *Input-only peripherals, e.g. GPS [Global Positioning System] (input arrangements or combined input and output arrangements for interaction between user and computer **G06F 3/01**)*
- AL N 21/4223 . . . . *Cameras (**H04N 5/225** takes precedence)*
- AL N 21/4227 . . . . *Remote input by a user located remotely from the client device, e.g. at work*



- AL N 21/426 . . . *Internal components of the client (**H04N 5/44** takes precedence)*
- AL N 21/43 . . . *Processing of content or additional data, e.g. demultiplexing additional data from a digital video stream; Elementary client operations, e.g. monitoring of home network or synchronizing decoder's clock; Client middleware*
- AL N 21/431 . . . *Generation of visual interfaces; Content or additional data rendering (receiver circuitry for displaying additional information **H04N 5/445**)*
- AL N 21/432 . . . *Content retrieval operation from a local storage medium, e.g. hard-disk*
- AL N 21/433 . . . *Content storage operation, e.g. storage operation in response to a pause request or caching operations*
- AL N 21/4335 . . . . *Housekeeping operations, e.g. prioritizing content for deletion because of storage space restrictions*
- AL N 21/434 . . . . *Disassembling of a multiplex stream, e.g. demultiplexing audio and video streams or extraction of additional data from a video stream; Remultiplexing of multiplex streams; Extraction or processing of SI; Disassembling of packetised elementary stream*
- AL N 21/435 . . . . *Processing of additional data, e.g. decrypting of additional data or reconstructing software from modules extracted from the transport stream*
- AL N 21/436 . . . . *Interfacing a local distribution network, e.g. communicating with another STB or inside the home*
- AL N 21/4363 . . . . *Adapting the video stream to a specific local network, e.g. a IEEE 1394 or Bluetooth network*
- AL N 21/4367 . . . . *Establishing a secure communication between the client and a peripheral device or smart card (arrangements for secret or secure communication **H04L 9/00**; security arrangements for protecting computers or computer systems against unauthorised activity **G06F 21/00**)*
- AL N 21/437 . . . . *Interfacing the upstream path of the transmission network, e.g. for transmitting client requests to a VOD server*
- AL N 21/438 . . . . *Interfacing the downstream path of the transmission network originating from a server, e.g. retrieving MPEG packets from an IP network*
- AL N 21/4385 . . . . *Multiplex stream processing, e.g. multiplex stream decrypting*
- AL N 21/439 . . . . *Processing of audio elementary streams*
- AL N 21/44 . . . . *Processing of video elementary streams, e.g. splicing a video clip retrieved from local storage with an incoming video stream or rendering scenes according to MPEG-4 scene graphs*
- AL N 21/4402 . . . . *involving reformatting operations of video signals for household redistribution, storage or real-time display*
- AL N 21/4405 . . . . *involving video stream decryption (arrangements for secret or secure communication **H04L 9/00**)*

- AL N 21/4408 . . . . *involving video stream encryption, e.g. re-encrypting a decrypted video stream for redistribution in a home network (arrangements for secret or secure communication **H04L 9/00**)*
- AL N 21/441 . . . . *Acquiring end-user identification*
- AL N 21/4415 . . . . *using biometric characteristics of the user, e.g. by voice recognition or fingerprint scanning*
- AL N 21/442 . . . . *Monitoring of processes or resources, e.g. detecting the failure of a recording device, monitoring the downstream bandwidth, the number of times a movie has been viewed or the storage space available from the internal hard disk*
- AL N 21/4425 . . . . *Monitoring of client processing errors or hardware failure (monitoring in electrical digital data processing **G06F 11/00**)*
- AL N 21/443 . . . . *OS processes, e.g. booting a STB, implementing a Java virtual machine in a STB or power management in a STB (arrangements for program loading or initiating **G06F 9/445**)*
- AL N 21/45 . . . . *Management operations performed by the client for facilitating the reception of or the interaction with the content or administrating data related to the end-user or to the client device itself, e.g. learning user preferences for recommending movies or resolving scheduling conflicts*
- AL N 21/454 . . . . *Content filtering, e.g. blocking advertisements*
- AL N 21/4545 . . . . *Input to filtering algorithms, e.g. filtering a region of the image*
- AL N 21/458 . . . . *Scheduling content for creating a personalised stream, e.g. by combining a locally stored advertisement with an incoming stream; Updating operations, e.g. for OS modules*
- AL N 21/462 . . . . *Content or additional data management e.g. creating a master electronic program guide from data received from the Internet and a Head-end or controlling the complexity of a video stream by scaling the resolution or bit-rate based on the client capabilities*
- AL N 21/4623 . . . . *Processing of entitlement messages, e.g. ECM [Entitlement Control Message] or EMM [Entitlement Management Message]*
- AL N 21/4627 . . . . *Rights management*
- AL N 21/466 . . . . *Learning process for intelligent management, e.g. learning user preferences for recommending movies*
- AL N 21/47 . . . . *End-user applications (interaction techniques for graphical user interfaces **G06F 3/048**; receiver circuitry for displaying additional information **H04N 5/445**)*
- AL N 21/472 . . . . *End-user interface for requesting content, additional data or services; End-user interface for interacting with content, e.g. for content reservation or setting reminders, for requesting event notification or for manipulating displayed content*
- AL N 21/4722 . . . . *for requesting additional data associated with the content*

- AL N 21/4725 . . . . . *using interactive regions of the image, e.g. hot spots*
- AL N 21/4728 . . . . . *for selecting a ROI [Region Of Interest], e.g. for requesting a higher resolution version of a selected region*
- AL N 21/475 . . . . . *End-user interface for inputting end-user data, e.g. PIN [Personal Identification Number] or preference data*
- AL N 21/478 . . . . . *Supplemental services, e.g. displaying phone caller identification or shopping application*
- AL N 21/4782 . . . . . *Web browsing*
- AL N 21/4784 . . . . . *receiving rewards*
- AL N 21/4786 . . . . . *e-mailing*
- AL N 21/4788 . . . . . *communicating with other users, e.g. chatting*
- AL N 21/482 . . . . . *End-user interface for program selection*
- AL N 21/485 . . . . . *End-user interface for client configuration*
- AL N 21/488 . . . . . *Data services, e.g. news ticker*
- AL N 21/60 . . . . . *Network structure or processes for video distribution between server and client or between remote clients (data switching networks **H04L 12/00**; wireless communication networks **H04W**) ; Control signaling between clients, server and network components; Transmission of management data between server and client; Communication details between server and client*
- AL N 21/61 . . . . . *Network physical structure; Signal processing (**H04B** takes precedence)*
- AL N 21/63 . . . . . *Control signaling between client, server and network components; Network processes for video distribution between server and clients, e.g. transmitting basic layer and enhancement layers over different transmission paths, setting up a peer-to-peer communication via Internet between remote STB's; Communication protocols; Addressing*
- AL N 21/633 . . . . . *Control signals issued by server directed to the network components or client*
- AL N 21/6332 . . . . . *directed to client*
- AL N 21/6334 . . . . . *for authorization, e.g. by transmitting a key (arrangements for secret or secure communication **H04L 9/00**)*
- AL N 21/6336 . . . . . *directed to decoder*
- AL N 21/6338 . . . . . *directed to network*
- AL N 21/637 . . . . . *Control signals issued by the client directed to the server or network components*
- AL N 21/6371 . . . . . *directed to network*

- AL N 21/6373 . . . . *for rate control*
- AL N 21/6375 . . . . *for requesting retransmission*
- AL N 21/6377 . . . . *directed to server*
- AL N 21/6379 . . . . *directed to encoder*
- AL N 21/64 . . . *Addressing*
- AL N 21/6402 . . . . *Address allocation for clients*
- AL N 21/6405 . . . . *Multicasting*
- AL N 21/6408 . . . . *Unicasting*
- AL N 21/643 . . . *Communication protocols*
- AL N 21/6433 . . . . *DSM-CC [Digital Storage Media - Command and Control Protocol]*
- AL N 21/6437 . . . . *RTP [Real-time Transport Protocol]*
- AL N 21/647 . . . *Control signaling between network components and server or clients; Network processes for video distribution between server and clients, e.g. controlling the quality of the video stream, by dropping packets, protecting content from unauthorised alteration within the network, monitoring of network load or bridging between two different networks, e.g. between IP and wireless*
- AL N 21/65 . . *Transmission of management data between client and server*
- AL N 21/654 . . . *Transmission by server directed to the client*
- AL N 21/6543 . . . . *for forcing some client operations, e.g. recording*
- AL N 21/6547 . . . . *comprising parameters, e.g. for client setup*
- AL N 21/658 . . . *Transmission by the client directed to the server*
- AL N 21/6583 . . . . *Acknowledgement*
- AL N 21/6587 . . . . *Control parameters, e.g. trick play commands or viewpoint selection*
- AL N 21/80 . *Generation or processing of content or additional data by content creator independently of the distribution process; Content per se*
- AL N 21/81 . . *Monomedia components thereof*
- AL N 21/83 . . *Generation or processing of protective or descriptive data associated with content; Content structuring*
- AL N 21/835 . . . *Generation of protective data, e.g. certificates*

- AL N 21/8352 . . . . *involving content or source identification data, e.g. UMID [Unique Material Identifier]*
- AL N 21/8355 . . . . *involving usage data, e.g. number of copies or viewings allowed*
- AL N 21/8358 . . . . *involving watermark*
- AL N 21/84 . . . . *Generation or processing of descriptive data, e.g. content descriptors*
- AL N 21/8405 . . . . *represented by keywords*
- AL N 21/845 . . . . *Structuring of content, e.g. decomposing content into time segments*
- AL N 21/85 . . . . *Assembly of content; Generation of multimedia applications*
- AL N 21/854 . . . . *Content authoring*
- AL N 21/8541 . . . . *involving branching, e.g. to different story endings*
- AL N 21/8543 . . . . *using a description language, e.g. MHEG [Multimedia and Hypermedia information coding Expert Group] or XML [eXtensible Markup Language]*
- AL N 21/8545 . . . . *for generating interactive applications*
- AL N 21/8547 . . . . *involving timestamps for synchronizing content*
- AL N 21/8549 . . . . *Creating video summaries, e.g. movie trailer*
- AL N 21/858 . . . . *Linking data to content, e.g. by linking an URL to a video object or by creating a hotspot*

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**ANNEX 211E H04Q** [ **Project-Rapporteur : M037/IB** ] <CE42>

- CL M 1/00 **Details of selecting apparatus or arrangements**
- CL M 1/06 . . . Cable ducts or mountings specially adapted for exchange installations
- CL M 1/30 . . . Signalling arrangements; Manipulation of signalling currents (multiplex systems providing for calling or supervisory signals [H04J 1/14](#), [H04J 3/12](#))

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**ANNEX 212E H05C** [ **Project-Rapporteur : M037/IB** ] <CE42>

- CL M Title **ELECTRIC CIRCUITS OR APPARATUS SPECIALLY DESIGNED FOR USE IN EQUIPMENT FOR KILLING, STUNNING, ENCLOSING OR GUIDING LIVING BEINGS** (stationary means for catching or killing insects by electric means [A01M 1/22](#); apparatus for the destruction of noxious animals, other than insects, by electricity [A01M 19/00](#); electric traps for animals [A01M 23/38](#); slaughtering or stunning by electric current [A22B 3/06](#))

CL M 1/04 · providing pulse voltages

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**ANNEX 213E H05F [ Project-Rapporteur : M037/IB ] <CE42>**

**CL M Title STATIC ELECTRICITY; NATURALLY-OCCURRING ELECTRICITY**

[End of Technical Annexes and of document]