

CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY

(NOTES omitted)

CHEMISTRY

C08 ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON (manufacture or treatment of artificial threads, fibres, bristles or ribbons [D01](#))

C08F MACROMOLECULAR COMPOUNDS OBTAINED BY REACTIONS ONLY INVOLVING CARBON-TO-CARBON UNSATURATED BONDS

NOTES

1. In this subclass, boron or silicon are considered as metals.
2. In this subclass, the following expression is used with the meaning indicated:
 - "aliphatic radical" means an acyclic or a non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to:
 - a. an element other than carbon
 - b. a carbon atom having a double bond to one atom other than carbon
 - c. an aromatic carbocyclic ring or a heterocyclic ring.

Examples: Polymers of

 1. $\text{CH}_2=\text{CH}-\text{O}-\text{CH}_2-\text{CH}_2-\text{NH}-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$ are classified in group [C08F 16/28](#)
 2. $\text{CH}_2=\text{CH}-\text{C}(=\text{O})-\text{CH}=\text{CH}_2$ are classified in group [C08F 16/36](#)
 3. para- $\text{C}_6\text{H}_4\text{Cl}(\text{CH}=\text{CH}_2)$ are classified in group [C08F 12/18](#).
3. In this subclass:
 - a. in the absence of an indication to the contrary, a catalyst or a polymer is classified in the last appropriate place .
 - b. {From April 2012 onwards, in a copolymer, the monomer in majority is given an Indexing Code and the monomer(s) in minority are given Indexing Code(s) in the form of a C-Set. The Indexing Codes are linked. The monomer in majority is always indicated first in the C-set. Example: a copolymer having ethylene in majority and styrene in minority is classified in ([C08F 210/02](#), [C08F 212/08](#)). }
4. In this subclass:
 - a. macromolecular compounds and their preparation are classified in the groups for the type of compound prepared. General processes for the preparation of macromolecular compounds according to more than one main group are classified in the groups for the processes employed ([C08F 2/00](#) - [C08F 8/00](#)). Processes for the preparation of macromolecular compounds are also classified in the groups for the types of reactions employed, if of interest;
 - b. subject matter relating to both homopolymers and copolymers is classified in groups [C08F 10/00](#) - [C08F 38/00](#);
 - c. subject matter limited to homopolymers is classified only in groups [C08F 110/00](#) - [C08F 138/00](#);
 - d. subject matter limited to copolymers is classified only in groups [C08F 210/00](#) - [C08F 246/00](#);
 - e. in groups [C08F 210/00](#) - [C08F 238/00](#), in the absence of an indication to the contrary, a copolymer is classified according to the major monomeric component.
5. This subclass covers also compositions based on monomers which form macromolecular compounds classifiable in this subclass (paints [C09D 4/00](#); adhesives [C09J 4/00](#)). In this subclass:
 - a. if the monomers are defined, classification is made according to the polymer to be formed:
 - in groups [C08F 10/00](#) - [C08F 246/00](#) if no preformed polymer is present;
 - in groups [C08F 251/00](#) - [C08F 291/00](#) if a preformed polymer is present, considering the reaction to take place as a graft or cross-linking reaction;
 - b. if the presence of compounding ingredients is of interest, classification is made in group [C08F 2/44](#) (sensitising agents [C08F 2/50](#); catalysts [C08F 4/00](#));
 - c. if the compounding ingredients are of interest per se, classification is also made in subclass [C08K](#).

WARNING

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

Processes; Catalysts

2/00 Processes of polymerisation

NOTE

Group [C08F 2/00](#) and subgroups can be incomplete according to the following classification rules:

C08F 2/00

(continued)

- if a process of polymerisation is specifically used for only one type of polymer, it is not classified in [C08F 2/00](#);
- in such a case, the classification symbol of [C08F 2/00](#) providing for the process of polymerisation may be used in the form of Combination Set in the groups providing for the polymer, e.g. ([C08F 36/04](#), [C08F 2/14](#))
- this method of classification is applied only when a note after the group providing for the polymer explicitly indicates which symbols of [C08F 2/00](#) may be used for forming the Combination Set.

- 2/001 . {Multistage polymerisation processes characterised by a change in reactor conditions without deactivating the intermediate polymer ([C08F 295/00](#), [C08F 297/00](#) take precedence)}
- 2/002 . {Scale prevention in a polymerisation reactor or its auxiliary parts}
- 2/004 . . {by a prior coating on the reactor walls}
- 2/005 . . {by addition of a scale inhibitor to the polymerisation medium}
- 2/007 . . {Scale prevention in the auxiliary parts}
- 2/008 . {cleaning reaction vessels using chemicals ([mechanical methods B08B 9/08](#))}
- 2/01 . characterised by special features of the polymerisation apparatus used
- 2/02 . Polymerisation in bulk
- 2/04 . Polymerisation in solution ([C08F 2/32](#) takes precedence)
- 2/06 . . Organic solvent
- 2/08 . . . with the aid of dispersing agents for the polymer
- 2/10 . . Aqueous solvent
- 2/12 . Polymerisation in non-solvents ([C08F 2/32](#) takes precedence)
- 2/14 . . Organic medium
- 2/16 . . Aqueous medium
- 2/18 . . . Suspension polymerisation
- 2/20 . . . with the aid of macromolecular dispersing agents
- 2/22 . . . Emulsion polymerisation
- 2/24 with the aid of emulsifying agents
- 2/26 anionic
- 2/28 cationic
- 2/30 non-ionic
- 2/32 . Polymerisation in water-in-oil emulsions
- 2/34 . Polymerisation in gaseous state
- 2/36 . Polymerisation in solid state
- 2/38 . Polymerisation using regulators, e.g. chain terminating agents {, e.g. [telomerisation](#)}
- 2/40 . . using retarding agents
- 2/42 . . using short-stopping agents
- 2/44 . Polymerisation in the presence of compounding ingredients, e.g. plasticisers, dyestuffs, fillers
- 2/46 . Polymerisation initiated by wave energy or particle radiation
- 2/48 . . by ultra-violet or visible light
- 2/50 . . . with sensitising agents
- 2/52 . . by electric discharge, e.g. voltolisation
- 2/54 . . by X-rays or electrons
- 2/56 . . by ultrasonic vibrations

2/58

- Polymerisation initiated by direct application of electric current ([electrolytic processes](#), e.g. [electrophoresis C25](#))

2/60

- Polymerisation by the diene synthesis

4/00

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

1. Group [C08F 4/00](#) and subgroups can be incomplete according to the following classification rules:
 - if a catalyst is specifically used for only one type of polymer, it is not classified in [C08F 4/00](#);
 - in such a case, the classification symbol of [C08F 4/00](#) providing for the catalyst may be used as a symbol for a C-Set in the groups providing for the polymer, e.g. ([C08F 12/04](#), [C08F 4/62](#))
 - this method of classification is applied only when a note after the group providing for the polymer explicitly indicates which symbols of [C08F 4/00](#) may be used for forming the C-set.
2. When classifying in group [C08F 4/00](#), the type of catalyst can be further indexed by using indexing codes chosen from [C08F 2410/00](#), [C08F 2420/00](#) or their subgroups

4/005

- {Friedel-Crafts catalysts in general}

NOTE

Where a carrier is considered of particular interest a further classification may be made in group [C08F 4/02](#).

4/02

- Carriers therefor

4/022

- . {Magnesium halide as support anhydrous or hydrated or complexed by means of a Lewis base for Ziegler-type catalysts}

4/025

- . {Metal oxides}

4/027

- . {Polymers}

4/04

- Azo-compounds

4/06

- Metallic compounds other than hydrides and other than metallo-organic compounds; Boron halide or aluminium halide complexes with organic compounds containing oxygen

4/08

- . of alkali metals

4/083

- . . {an alkali metal bound to oxygen}

4/086

- . . {an alkali metal bound to nitrogen, e.g. $\text{LiN}(\text{C}_2\text{H}_5)_2$ }

4/10

- . of alkaline earth metals, zinc, cadmium, mercury, copper or silver

4/12

- . of boron, aluminium, gallium, indium, thallium or rare earths

4/14

- . . Boron halides or aluminium halides; Complexes thereof with organic compounds containing oxygen

4/16

- . of silicon, germanium, tin, lead, titanium, zirconium or hafnium

4/18

- . . . Oxides

4/20

- . of antimony, bismuth, vanadium, niobium or tantalum

4/22

- . of chromium, molybdenum or tungsten

4/24

- . . Oxides

4/26

- . of manganese, iron group metals or platinum group metals

- 4/28 . Oxygen or compounds releasing free oxygen ([redox systems C08F 4/40](#))
- 4/30 . . Inorganic compounds
- 4/32 . . Organic compounds
- 4/34 . . . Per-compounds with one peroxy-radical
- 4/36 . . . Per-compounds with more than one peroxy radical
- 4/38 . . . Mixtures of peroxy-compounds
- 4/40 . Redox systems
- 4/42 . Metals; Metal hydrides; Metallo-organic compounds; Use thereof as catalyst precursors
- 4/44 . . selected from light metals, zinc, cadmium, mercury, copper, silver, gold, boron, gallium, indium, thallium, rare earths or actinides
- 4/46 . . . selected from alkali metals
- 4/461 {Catalysts containing at least two different components covered by the same or by different subgroups of group [C08F 4/46](#), e.g. butyllithium + propylrubidium}
- 4/463 {selected from sodium or potassium ([C08F 4/461](#) takes precedence)}
- 4/465 {Metallic sodium or potassium}
- 4/466 {an alkali metal bound to a cyclic carbon}
- 4/468 {at least two metal atoms in the same molecule}
- 4/48 selected from lithium, rubidium, caesium or francium {([C08F 4/461](#) takes precedence)}
- 4/482 {Metallic lithium, rubidium, caesium or francium}
- 4/484 {an alkali metal bound to a cyclic carbon}
- 4/486 {at least two metal atoms in the same molecule}
- 4/488 {at least two lithium atoms in the same molecule}
- 4/50 . . . selected from alkaline earth metals, zinc, cadmium, mercury, copper or silver
- 4/52 . . . selected from boron, aluminium, gallium, indium, thallium or rare earths ([C08F 4/14](#) takes precedence)
- 4/54 . . . together with other compounds thereof
- 4/545 {rare earths being present, e.g. triethylaluminium + neodymium octanoate}
- 4/56 Alkali metals being the only metals present, e.g. Alfin catalysts
- 4/565 {Lithium being present, e.g. butyllithium + sodiumphenoxide}
- 4/58 . . . together with silicon, germanium, tin, lead, antimony, bismuth or compounds thereof
- 4/60 . . . together with refractory metals, iron group metals, platinum group metals, manganese, rhenium {technetium} or compounds thereof

NOTES

1. In groups [C08F 4/60](#) - [C08F 4/64](#), the term "component" comprises the transition metal or a compound thereof, pretreated or not { (pretreating [per se C08F 4/61](#), [C08F 4/63](#) and [C08F 4/65](#)) }
2. Group [C08F 4/60003](#) takes precedence over groups [C08F 4/602](#) - [C08F 4/619](#)

- 4/60003 {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

- 4/60006 {Bidentate ligand (not used)}
- 4/6001 {Neutral ligand}
- 4/60013 {NN}
- 4/60017 {NO}
- 4/6002 {NS}
- 4/60024 {OS}
- 4/60027 {PN}
- 4/60031 {PO}
- 4/60034 {PP}
- 4/60037 {PS}
- 4/60041 {Monoanionic ligand}
- 4/60044 {NN}
- 4/60048 {NO}
- 4/60051 {NS}
- 4/60055 {ON}
- 4/60058 {OO}
- 4/60062 {PN}
- 4/60065 {PO}
- 4/60068 {Dianionic ligand}
- 4/60072 {NN}
- 4/60075 {NO}
- 4/60079 {OO}
- 4/60082 {Tridentate ligand (not used)}
- 4/60086 {Neutral ligand}
- 4/60089 {NNN}
- 4/60093 {NNO}
- 4/60096 {NNS}
- 4/60099 {NSN}
- 4/60103 {PNN}
- 4/60106 {PNP}
- 4/6011 {Monoanionic ligand}
- 4/60113 {NNN}
- 4/60117 {NNO}
- 4/6012 {ONN}
- 4/60124 {ONO}
- 4/60127 {ON*O}
- 4/60131 {PNO}
- 4/60134 {SNN}
- 4/60137 {SNO}
- 4/60141 {Dianionic ligand}
- 4/60144 {NN(R)C}
- 4/60148 {NN(R)N}
- 4/60151 {NNO}
- 4/60155 {ON(R)C}
- 4/60158 {ONO}
- 4/60162 {O*O*P}
- 4/60165 {OSO}
- 4/60168 {Tetra- or multi-dentate ligand (not used)}
- 4/60172 {Neutral ligand}
- 4/60175 {ONNO}

- 4/60179 {PNNN}
- 4/60182 {Monoanionic ligand}
- 4/60186 {Dianionic ligand}
- 4/60189 {ONNO}
- 4/60193 {OOOO}
- 4/60196 {OSSO}
- 4/602 Component covered by group [C08F 4/60](#) with an organo-aluminium compound {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/6022 {Component of [C08F 4/60](#) containing at least two different metals}
- 4/6024 {containing magnesium}
- 4/6026 {containing aluminium}
- 4/6028 {with an alumoxane, i.e. a compound containing an -Al-O-Al-group}
- 4/603 Component covered by group [C08F 4/60](#) with a metal or compound covered by group [C08F 4/44](#) other than an organo-aluminium compound {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/6032 {Component of [C08F 4/60](#) containing at least two different metals}
- 4/6035 {containing magnesium}
- 4/6037 {containing aluminium}
- 4/605 Component covered by group [C08F 4/60](#) with a metal or compound covered by group [C08F 4/44](#), not provided for in a single group of groups [C08F 4/602](#) or [C08F 4/603](#) {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/6052 {Component of [C08F 4/60](#) containing at least two different metals}
- 4/6055 {containing magnesium}
- 4/6057 {containing aluminium}
- 4/606 Catalysts comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by groups [C08F 4/60](#) {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/6065 {containing silicon}
- 4/607 Catalysts containing a specific non-metal or metal-free compound {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/608 inorganic
- 4/609 organic
- 4/6091 {hydrocarbon}
- 4/6092 {containing aliphatic unsaturation}
- 4/6093 {containing halogen}
- 4/6094 {containing oxygen}
- 4/6095 {containing nitrogen}
- 4/6096 {containing sulfur}
- 4/6097 {containing phosphorus}
- 4/6098 {containing another heteroatom}
- 4/61 Pretreating the metal or compound covered by group [C08F 4/60](#) before the final contacting with the metal or compound covered by group [C08F 4/44](#) {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/611 Pretreating with non-metals or metal-free compounds
- 4/612 Pretreating with metals or metal-containing compounds
- 4/613 with metals covered by group [C08F 4/60](#) or compounds thereof
- 4/614 with magnesium or compounds thereof
- 4/6141 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/6143 {halides of magnesium}
- 4/6145 {and metals of group [C08F 4/60](#) or compounds thereof}
- 4/6146 {organo-magnesium compounds}
- 4/6148 {magnesium or compounds thereof not provided for in [C08F 4/6143](#) or [C08F 4/6146](#)}
- 4/615 with aluminium or compounds thereof
- 4/6152 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/6155 {and magnesium or compounds thereof}
- 4/6157 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/616 with silicon or compounds thereof
- 4/6162 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/6165 {and magnesium or compounds thereof}
- 4/6167 {and aluminium or compounds thereof}
- 4/617 with metals or metal-containing compounds, not provided for in groups [C08F 4/613](#) - [C08F 4/616](#)
- 4/6172 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/6174 {and magnesium or compounds thereof}
- 4/6176 {and aluminium or compounds thereof}
- 4/6178 {and silicon or compounds thereof}
- 4/618 with metals or metal-containing compounds, provided for in at least two of the groups [C08F 4/613](#) - [C08F 4/617](#)
- 4/6181 {and metals of [C08F 4/60](#) or compounds thereof}
- 4/6183 {and magnesium or compounds thereof}
- 4/6185 {and aluminium or compounds thereof}
- 4/6186 {and silicon or compounds thereof}
- 4/6188 {and metals or metal-containing compounds of [C08F 4/617](#)}
- 4/619 Component covered by group [C08F 4/60](#) containing a transition metal-carbon bond {(C08F 4/60003 - C08F 4/60196 take precedence)}
- 4/61904 {in combination with another component of [C08F 4/60](#)}
- 4/61908 {in combination with an ionising compound other than alumoxane, e.g. (C₆F₅)₄BX⁺}
- 4/61912 {in combination with an organoaluminium compound}
- 4/61916 {supported on a carrier, e.g. silica, MgCl₂, polymer}

4/6192	. . . . .	containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring	4/62124	. . . . .	{ONO}
4/61922	. . . . .	{containing at least two cyclopentadienyl rings, fused or not}	4/62127	. . . . .	{ON*O}
4/61925	. . . . .	{two cyclopentadienyl rings being mutually non-bridged}	4/62131	. . . . .	{PNO}
4/61927	. . . . .	{two cyclopentadienyl rings being mutually bridged}	4/62134	. . . . .	{SNN}
4/62	. . . . .	Refractory metals or compounds thereof	4/62137	. . . . .	{SNO}
NOTE			4/62141	. . . . .	{Dianionic ligand}
Group C08F 4/62003 takes precedence over groups C08F 4/622 - C08F 4/639			4/62144	. . . . .	{NN(R)C}
4/62003	. . . . .	{the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}	4/62148	. . . . .	{NN(R)N}
NOTE			4/62151	. . . . .	{NNO}
For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom			4/62155	. . . . .	{ON(R)C}
4/62006	. . . . .	{Bidentate ligand (not used)}	4/62158	. . . . .	{ONO}
4/6201	. . . . .	{Neutral ligand}	4/62162	. . . . .	{O*O*P}
4/62013	. . . . .	{NN}	4/62165	. . . . .	{OSO}
4/62017	. . . . .	{NO}	4/62168	. . . . .	{Tetra- or multi-dentate ligand (not used)}
4/6202	. . . . .	{NS}	4/62172	. . . . .	{Neutral ligand}
4/62024	. . . . .	{OS}	4/62175	. . . . .	{ONNO}
4/62027	. . . . .	{PN}	4/62179	. . . . .	{PNNN}
4/62031	. . . . .	{PO}	4/62182	. . . . .	{Monoanionic ligand}
4/62034	. . . . .	{PP}	4/62186	. . . . .	{Dianionic ligand}
4/62037	. . . . .	{PS}	4/62189	. . . . .	{ONNO}
4/62041	. . . . .	{Monoanionic ligand}	4/62193	. . . . .	{OOOO}
4/62044	. . . . .	{NN}	4/62196	. . . . .	{OSSO}
4/62048	. . . . .	{NO}	4/622	. . . . .	Component covered by group C08F 4/62 with an organo-aluminium compound {(C08F 4/62003 - C08F 4/62196 take precedence)}
4/62051	. . . . .	{NS}	4/6222	. . . . .	{Component of C08F 4/62 containing at least two different metals}
4/62055	. . . . .	{ON}	4/6224	. . . . .	{containing magnesium}
4/62058	. . . . .	{OO}	4/6226	. . . . .	{containing aluminium}
4/62062	. . . . .	{PN}	4/6228	. . . . .	{with an aluminoxane, i.e. a compound containing an Al-O-Al- group}
4/62065	. . . . .	{PO}	4/623	. . . . .	Component covered by group C08F 4/62 with a metal or compound covered by group C08F 4/44 other than an organo-aluminium compound {(C08F 4/62003 - C08F 4/62196 take precedence)}
4/62068	. . . . .	{Dianionic ligand}	4/6232	. . . . .	{Component of C08F 4/62 containing at least two different metals}
4/62072	. . . . .	{NN}	4/6235	. . . . .	{containing magnesium}
4/62075	. . . . .	{NO}	4/6237	. . . . .	{containing aluminium}
4/62079	. . . . .	{OO}	4/625	. . . . .	Component covered by group C08F 4/62 with a metal or compound covered by group C08F 4/44 , not provided for in a single group of groups C08F 4/622 or C08F 4/623 {(C08F 4/62003 - C08F 4/62196 take precedence)}
4/62082	. . . . .	{Tridentate ligand (not used)}	4/6252	. . . . .	{Component of C08F 4/62 containing at least two different metals}
4/62086	. . . . .	{Neutral ligand}	4/6255	. . . . .	{containing magnesium}
4/62089	. . . . .	{NNN}	4/6257	. . . . .	{containing aluminium}
4/62093	. . . . .	{NNO}	4/626	. . . . .	Catalysts comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by group C08F 4/62 {(C08F 4/62003 - C08F 4/62196 take precedence)}
4/62096	. . . . .	{NNS}	4/6265	. . . . .	{containing silicium}
4/62099	. . . . .	{NSN}			
4/62103	. . . . .	{PNN}			
4/62106	. . . . .	{PNP}			
4/6211	. . . . .	{Monoanionic ligand}			
4/62113	. . . . .	{NNN}			
4/62117	. . . . .	{NNO}			
4/6212	. . . . .	{ONN}			

- 4/627 Catalysts containing a specific non-metal or metal-free compound {[\(C08F 4/62003 - C08F 4/62196 take precedence\)](#)}
- 4/628 inorganic
- 4/629 organic
- 4/6291 {hydrocarbon}
- 4/6292 {containing aliphatic unsaturation}
- 4/6293 {containing halogen}
- 4/6294 {containing oxygen}
- 4/6295 {containing nitrogen}
- 4/6296 {containing sulfur}
- 4/6297 {containing phosphorus}
- 4/6298 {containing another heteroatom}
- 4/63 Pretreating the metal or compound covered by group [C08F 4/62](#) before the final contacting with the metal or compound covered by group [C08F 4/44](#) {[\(C08F 4/62003 - C08F 4/62196 take precedence\)](#)}
- 4/631 Pretreating with non-metals or metal-free compounds
- 4/632 Pretreating with metals or metal-containing compounds
- 4/633 with metals covered by group [C08F 4/62](#) or compounds thereof
- 4/634 with magnesium or compounds thereof
- 4/6341 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/6343 {halides of magnesium}
- 4/6345 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/6346 {organo-magnesium compounds}
- 4/6348 {magnesium or compounds thereof not provided for in [C08F 4/6345](#) or [C08F 4/6346](#)}
- 4/635 with aluminium or compounds thereof
- 4/6352 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/6355 {and magnesium or compounds thereof}
- 4/6357 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/636 with silicon or compounds thereof
- 4/6362 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/6365 {and magnesium or compounds thereof}
- 4/6367 {and aluminium or compounds thereof}
- 4/637 with metals or metal-containing compounds, not provided for in groups [C08F 4/633 - C08F 4/636](#)
- 4/6372 {and metals of [C08F 4/62](#) or compounds thereof}
- 4/6374 {and magnesium or compounds thereof}
- 4/6376 {and aluminium or compounds thereof}
- 4/6378 {and silicon or compounds thereof}
- 4/638 with metals or metal-containing compounds, not provided for in a single group of groups [C08F 4/633 - C08F 4/637](#)
- 4/6381 {and metals or metal-containing compounds of [C08F 4/62](#)}
- 4/6383 {and magnesium or compounds thereof}
- 4/6385 {and aluminium or compounds thereof}
- 4/6386 {and silicon or compounds thereof}
- 4/6388 {and metals or metal-containing compounds of [C08F 4/637](#)}
- 4/639 Component covered by group [C08F 4/62](#) containing a transition metal-carbon bond {[\(C08F 4/62003 - C08F 4/62196 take precedence\)](#)}
- 4/63904 {in combination with another component of [C08F 4/62](#)}
- 4/63908 {in combination with an ionising compound other than alumoxane, e.g. $(C_6F_5)_4B X^+$ }
- 4/63912 {in combination with an organoaluminium compound}
- 4/63916 {supported on a carrier, e.g. silica, $MgCl_2$, polymer}
- 4/6392 containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring
- 4/63922 {containing at least two cyclopentadienyl rings, fused or not}
- 4/63925 {two cyclopentadienyl rings being mutually non-bridged}
- 4/63927 {two cyclopentadienyl rings being mutually bridged}
- 4/64 Titanium, zirconium, hafnium or compounds thereof
- NOTE**
- Group [C08F 4/64003](#) takes precedence over groups [C08F 4/642 - C08F 4/659](#)
- 4/64003 {the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}
- NOTE**
- For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom
- 4/64006 {Bidentate ligand (not used)}
- 4/6401 {Neutral ligand}
- 4/64013 {NN}
- 4/64017 {NO}
- 4/6402 {NS}
- 4/64024 {OS}
- 4/64027 {PN}
- 4/64031 {PO}

4/64034	. . . . .	{PP}	4/6428	. . . . .	{with an aluminosilicate, i.e. a compound containing an Al-O-Al-group}
4/64037	. . . . .	{PS}	4/643	. . . . .	Component covered by group C08F 4/64 with a metal or compound covered by group C08F 4/44 other than an organo-aluminium compound {(C08F 4/64003 - C08F 4/64196 take precedence)}
4/64041	. . . . .	{Monoanionic ligand}	4/6432	. . . . .	{Component of C08F 4/64 containing at least two different metals}
4/64044	. . . . .	{NN}	4/6435	. . . . .	{containing magnesium}
4/64048	. . . . .	{NO}	4/6437	. . . . .	{containing aluminium}
4/64051	. . . . .	{NS}	4/645	. . . . .	Component covered by group C08F 4/64 with a metal or compound covered by group C08F 4/44, not provided for in a single group of groups C08F 4/642 - C08F 4/643 {(C08F 4/60003 - C08F 4/60196 take precedence)}
4/64055	. . . . .	{ON}	4/6452	. . . . .	{Component of C08F 4/64 containing at least two different metals}
4/64058	. . . . .	{OO}	4/6455	. . . . .	{containing magnesium}
4/64062	. . . . .	{PN}	4/6457	. . . . .	{containing aluminium}
4/64065	. . . . .	{PO}	4/646	. . . . .	Catalysts comprising at least two different metals, in metallic form or as compounds thereof, in addition to the component covered by group C08F 4/64 {(C08F 4/64003 - C08F 4/64196 take precedence)}
4/64068	. . . . .	{Dianionic ligand}	4/6465	. . . . .	{containing silicon}
4/64072	. . . . .	{NN}	4/647	. . . . .	Catalysts containing a specific non-metal or metal-free compound {(C08F 4/64003 - C08F 4/64196 take precedence)}
4/64075	. . . . .	{NO}	4/648	. . . . .	inorganic
4/64079	. . . . .	{OO}	4/649	. . . . .	organic
4/64082	. . . . .	{Tridentate ligand (not used)}	4/6491	. . . . .	{hydrocarbon}
4/64086	. . . . .	{Neutral ligand}	4/6492	. . . . .	{containing aliphatic unsaturation}
4/64089	. . . . .	{NNN}	4/6493	. . . . .	{containing halogen}
4/64093	. . . . .	{NNO}	4/6494	. . . . .	{containing oxygen}
4/64096	. . . . .	{NNS}	4/6495	. . . . .	{containing nitrogen}
4/64099	. . . . .	{NSN}	4/6496	. . . . .	{containing sulfur}
4/64103	. . . . .	{PNN}	4/6497	. . . . .	{containing phosphorus}
4/64106	. . . . .	{PNP}	4/6498	. . . . .	{containing another heteroatom}
4/6411	. . . . .	{Monoanionic ligand}	4/65	. . . . .	Pretreating the metal or compound covered by group C08F 4/64 before the final contacting with the metal or compound covered by group C08F 4/44 {(C08F 4/64003 - C08F 4/64196 take precedence)}
4/64113	. . . . .	{NNN}	4/651	. . . . .	Pretreating with non-metals or metal-free compounds
4/64117	. . . . .	{NNO}	4/652	. . . . .	Pretreating with metals or metal-containing compounds
4/6412	. . . . .	{ONN}	4/653	. . . . .	with metals of C08F 4/64 or compounds thereof
4/64124	. . . . .	{ONO}	4/654	. . . . .	with magnesium or compounds thereof
4/64127	. . . . .	{ON*O}	4/6541	. . . . .	{and metals of C08F 4/64 or compounds thereof}
4/64131	. . . . .	{PNO}	4/6543	. . . . .	{halides of magnesium}
4/64134	. . . . .	{SNN}			
4/64137	. . . . .	{SNO}			
4/64141	. . . . .	{Dianionic ligand}			
4/64144	. . . . .	{NN(R)C}			
4/64148	. . . . .	{NN(R)N}			
4/64151	. . . . .	{NNO}			
4/64155	. . . . .	{ON(R)C}			
4/64158	. . . . .	{ONO}			
4/64162	. . . . .	{O*O*P}			
4/64165	. . . . .	{OSO}			
4/64168	. . . . .	{Tetra- or multi-dentate ligand (not used)}			
4/64172	. . . . .	{Neutral ligand}			
4/64175	. . . . .	{ONNO}			
4/64179	. . . . .	{PNNN}			
4/64182	. . . . .	{Monoanionic ligand}			
4/64186	. . . . .	{Dianionic ligand}			
4/64189	. . . . .	{ONNO}			
4/64193	. . . . .	{OOOO}			
4/64196	. . . . .	{OSSO}			
4/642	. . . . .	Component covered by group C08F 4/64 with an organo-aluminium compound {(C08F 4/64003 - C08F 4/64196 take precedence)}			
4/6421	. . . . .	{Titanium tetrahalides with organo-aluminium compounds}			
4/6423	. . . . .	{Component of C08F 4/64 containing at least two different metals}			
4/6425	. . . . .	{containing magnesium}			
4/6426	. . . . .	{containing aluminium}			

4/6545	. . . . .	{and metals of C08F 4/64 or compounds thereof}	4/65922	. . . . .	{containing at least two cyclopentadienyl rings, fused or not}
4/6546	. . . . .	{organo-magnesium compounds}	4/65925	. . . . .	{two cyclopentadienyl rings being mutually non-bridged}
4/6548	. . . . .	{magnesium or compounds thereof, not provided for in C08F 4/6543 or C08F 4/6546 }	4/65927	. . . . .	{two cyclopentadienyl rings being mutually bridged}
4/655	. . . . .	with aluminium or compounds thereof	4/68	. . . . .	Vanadium, niobium, tantalum or compounds thereof
4/6552	. . . . .	{and metals of C08F 4/64 or compounds thereof}	4/68008	. . . . .	{the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}
4/6555	. . . . .	{and magnesium or compounds thereof}	NOTE		
4/6557	. . . . .	{and metals of C08F 4/64 or compounds thereof}	For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom		
4/656	. . . . .	with silicon or compounds thereof	4/68017	. . . . .	{Bidentate ligand (not used)}
4/6562	. . . . .	{and metals of C08F 4/64 or compounds thereof}	4/68025	. . . . .	{Neutral ligand}
4/6565	. . . . .	{and magnesium or compounds thereof}	4/68034	. . . . .	{NN}
4/6567	. . . . .	{and aluminium or compounds thereof}	4/68043	. . . . .	{NO}
4/657	. . . . .	with metals or metal-containing compounds, not provided for in groups C08F 4/653 - C08F 4/656	4/68051	. . . . .	{NS}
4/6572	. . . . .	{and metals of C08F 4/64 or compounds thereof}	4/6806	. . . . .	{OS}
4/6574	. . . . .	{and magnesium or compounds thereof}	4/68068	. . . . .	{PN}
4/6576	. . . . .	{and aluminium or compounds thereof}	4/68077	. . . . .	{PO}
4/6578	. . . . .	{and silicon or compounds thereof}	4/68086	. . . . .	{PP}
4/658	. . . . .	with metals or metal-containing compounds, not provided for in a single group of groups C08F 4/653 - C08F 4/657	4/68094	. . . . .	{PS}
4/6581	. . . . .	{and metals of C08F 4/64 or compounds thereof}	4/68103	. . . . .	{Monoanionic ligand}
4/6583	. . . . .	{and magnesium or compounds thereof}	4/68112	. . . . .	{NN}
4/6585	. . . . .	{and aluminium or compounds thereof}	4/6812	. . . . .	{NO}
4/6586	. . . . .	{and silicon or compounds thereof}	4/68129	. . . . .	{NS}
4/6588	. . . . .	{and metals or metal-containing compounds of C08F 4/657 }	4/68137	. . . . .	{ON}
4/659	. . . . .	Component covered by group C08F 4/64 containing a transition metal-carbon bond {(C08F 4/64003 - C08F 4/64196 take precedence)}	4/68146	. . . . .	{OO}
4/65904	. . . . .	{in combination with another component of C08F 4/64 }	4/68155	. . . . .	{PN}
4/65908	. . . . .	{in combination with an ionising compound other than alumoxane, e.g. (C ₆ F ₅) ₄ B X ⁺ }	4/68163	. . . . .	{PO}
4/65912	. . . . .	{in combination with an organoaluminium compound}	4/68172	. . . . .	{Dianionic ligand}
4/65916	. . . . .	{supported on a carrier, e.g. silica, MgCl ₂ , polymer}	4/68181	. . . . .	{NN}
4/6592	. . . . .	containing at least one cyclopentadienyl ring, condensed or not, e.g. an indenyl or a fluorenyl ring	4/68189	. . . . .	{NO}
			4/68198	. . . . .	{OO}
			4/68206	. . . . .	{Tridentate ligand (not used)}
			4/68215	. . . . .	{Neutral ligand}
			4/68224	. . . . .	{NNN}
			4/68232	. . . . .	{NNO}
			4/68241	. . . . .	{NNS}
			4/6825	. . . . .	{NSN}
			4/68258	. . . . .	{PNN}
			4/68267	. . . . .	{PNP}
			4/68275	. . . . .	{Monoanionic ligand}
			4/68284	. . . . .	{NNN}
			4/68293	. . . . .	{NNO}
			4/68301	. . . . .	{ONN}
			4/6831	. . . . .	{ONO}
			4/68318	. . . . .	{ON*O}
			4/68327	. . . . .	{PNO}
			4/68336	. . . . .	{SNN}
			4/68344	. . . . .	{SNO}

4/68353	. . . . .	{Dianionic ligand}
4/68362	. . . . .	{NN(R)C}
4/6837	. . . . .	{NN(R)N}
4/68379	. . . . .	{NNO}
4/68387	. . . . .	{ON(R)C}
4/68396	. . . . .	{ONO}
4/68405	. . . . .	{O*O*P}
4/68413	. . . . .	{OSO}
4/68422	. . . . .	{Tetra- or multi-dentate ligand (not used)}
4/68431	. . . . .	{Neutral ligand}
4/68439	. . . . .	{ONNO}
4/68448	. . . . .	{PNNN}
4/68456	. . . . .	{Monoanionic ligand}
4/68465	. . . . .	{Dianionic ligand}
4/68474	. . . . .	{ONNO}
4/68482	. . . . .	{OOOO}
4/68491	. . . . .	{OSSO}
4/685	. . . . .	Vanadium or compounds thereof in combination with titanium or compounds thereof
4/69	. . . . .	Chromium, molybdenum, tungsten or compounds thereof
4/69008	. . . . .	{the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}

NOTE

For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom

4/69017	. . . . .	{Bidentate ligand (not used)}
4/69025	. . . . .	{Neutral ligand}
4/69034	. . . . .	{NN}
4/69043	. . . . .	{NO}
4/69051	. . . . .	{NS}
4/6906	. . . . .	{OS}
4/69068	. . . . .	{PN}
4/69077	. . . . .	{PO}
4/69086	. . . . .	{PP}
4/69094	. . . . .	{PS}
4/69103	. . . . .	{Monoanionic ligand}
4/69112	. . . . .	{NN}
4/6912	. . . . .	{NO}
4/69129	. . . . .	{NS}
4/69137	. . . . .	{ON}
4/69146	. . . . .	{OO}
4/69155	. . . . .	{PN}
4/69163	. . . . .	{PO}
4/69172	. . . . .	{Dianionic ligand}
4/69181	. . . . .	{NN}
4/69189	. . . . .	{NO}
4/69198	. . . . .	{OO}
4/69206	. . . . .	{Tridentate ligand (not used)}
4/69215	. . . . .	{Neutral ligand}
4/69224	. . . . .	{NNN}

4/69232	. . . . .	{NNO}
4/69241	. . . . .	{NNS}
4/6925	. . . . .	{NSN}
4/69258	. . . . .	{PNN}
4/69267	. . . . .	{PNP}
4/69275	. . . . .	{Monoanionic ligand}
4/69284	. . . . .	{NNN}
4/69293	. . . . .	{NNO}
4/69301	. . . . .	{ONN}
4/6931	. . . . .	{ONO}
4/69318	. . . . .	{ON*O}
4/69327	. . . . .	{PNO}
4/69336	. . . . .	{SNN}
4/69344	. . . . .	{SNO}
4/69353	. . . . .	{Dianionic ligand}
4/69362	. . . . .	{NN(R)C}
4/6937	. . . . .	{NN(R)N}
4/69379	. . . . .	{NNO}
4/69387	. . . . .	{ON(R)C}
4/69396	. . . . .	{ONO}
4/69405	. . . . .	{O*O*P}
4/69413	. . . . .	{OSO}
4/69422	. . . . .	{Tetra- or multi-dentate ligand (not used)}
4/69431	. . . . .	{Neutral ligand}
4/69439	. . . . .	{ONNO}
4/69448	. . . . .	{PNNN}
4/69456	. . . . .	{Monoanionic ligand}
4/69465	. . . . .	{Dianionic ligand}
4/69474	. . . . .	{ONNO}
4/69482	. . . . .	{OOOO}
4/69491	. . . . .	{OSSO}
4/695	. . . . .	Manganese, technetium, rhenium or compounds thereof
4/70	. . . . .	Iron group metals, platinum group metals or compounds thereof
4/7001	. . . . .	{the metallic compound containing a multidentate ligand, i.e. a ligand capable of donating two or more pairs of electrons to form a coordinate or ionic bond (not used)}
NOTE		
For monoanionic compounds, the charge is on the last mentioned atom; for dianionic compounds, the charge is on the first and the last mentioned atoms except for compounds marked with * where the charge is on the marked atom		
4/7003	. . . . .	{Bidentate ligand (not used)}
4/7004	. . . . .	{Neutral ligand}
4/7006	. . . . .	{NN}
4/7008	. . . . .	{NO}
4/7009	. . . . .	{NS}
4/7011	. . . . .	{OS}
4/7013	. . . . .	{PN}
4/7014	. . . . .	{PO}
4/7016	. . . . .	{PP}
4/7018	. . . . .	{PS}
4/7019	. . . . .	{Monoanionic ligand}
4/7021	. . . . .	{NNN}

4/7022	. . . . .	{NO}
4/7024	. . . . .	{NS}
4/7026	. . . . .	{ON}
4/7027	. . . . .	{OO}
4/7029	. . . . .	{PN}
4/7031	. . . . .	{PO}
4/7032	. . . . .	{Dianionic ligand}
4/7034	. . . . .	{NN}
4/7036	. . . . .	{NO}
4/7037	. . . . .	{OO}
4/7039	. . . . .	{Tridentate ligand (not used)}
4/704	. . . . .	{Neutral ligand}
4/7042	. . . . .	{NNN}
4/7044	. . . . .	{NNO}
4/7045	. . . . .	{NNS}
4/7047	. . . . .	{NSN}
4/7049	. . . . .	{PNN}
4/705	. . . . .	{PNP}
4/7052	. . . . .	{Monoanionic ligand}
4/7054	. . . . .	{NNN}
4/7055	. . . . .	{NNO}
4/7057	. . . . .	{ONN}
4/7059	. . . . .	{ONO}
4/706	. . . . .	{ON*O}
4/7062	. . . . .	{PNO}
4/7063	. . . . .	{SNN}
4/7065	. . . . .	{SNO}
4/7067	. . . . .	{Dianionic ligand}
4/7068	. . . . .	{NN(R)C}
4/707	. . . . .	{NN(R)N}
4/7072	. . . . .	{NNO}
4/7073	. . . . .	{ON(R)C}
4/7075	. . . . .	{ONO}
4/7077	. . . . .	{O*O*P}
4/7078	. . . . .	{OSO}
4/708	. . . . .	{Tetra- or multi-dentate ligand (not used)}
4/7081	. . . . .	{Neutral ligand}
4/7083	. . . . .	{ONNO}
4/7085	. . . . .	{PNNN}
4/7086	. . . . .	{Monoanionic ligand}
4/7088	. . . . .	{Dianionic ligand}
4/709	. . . . .	{ONNO}
4/7091	. . . . .	{OOOO}
4/7093	. . . . .	{OSSO}
4/7095	. . . . .	{Cobalt, nickel or compounds thereof (C08F 4/7001 - C08F 4/7093 take precedence)}
4/7096	. . . . .	{Cobalt or compounds thereof}
4/7098	. . . . .	{Nickel or compounds thereof}
4/72	. . . . .	selected from metals not provided for in group C08F 4/44 (C08F 4/54 - C08F 4/70 take precedence)
4/74	. . . . .	selected from refractory metals
4/76	. . . . .	selected from titanium, zirconium, hafnium, vanadium, niobium or tantalum
4/78	. . . . .	selected from chromium, molybdenum or tungsten
4/80	. . . . .	selected from iron group metals or platinum group metals
4/82	. . . . .	pi-Allyl complexes

6/00 **Post-polymerisation treatments** (C08F 8/00 takes precedence; of conjugated diene rubbers C08C)

NOTES

1. In groups C08F 6/00 - C08F 6/28 the treatment of specific polymers is indicated using the subdivision of C08L 23/00 - C08L 57/12 in the form of C-Sets. Example: (C08F 6/12, C08L 25/06)
2. Groups C08F 6/001, C08F 6/006, C08F 6/008, C08F 6/02, C08F 6/04 take precedence over the other groups.

- 6/001 . {Removal of residual monomers by physical means}
- 6/003 . . {from polymer solutions, suspensions, dispersions or emulsions without recovery of the polymer therefrom}
- 6/005 . . {from solid polymers}
- 6/006 . {Removal of residual monomers by chemical reaction, e.g. scavenging}
- 6/008 . {Treatment of solid polymer wetted by water or organic solvents, e.g. coagulum, filter cakes}
- 6/02 . Neutralisation of the polymerisation mass, e.g. killing the catalyst (short-stopping C08F 2/42) {also removal of catalyst residues}
- 6/04 . Fractionation
- 6/06 . Treatment of polymer solutions
- 6/08 . . Removal of catalyst residues {(not used, see C08F 6/02)}
- 6/10 . . Removal of volatile materials, e.g. monomers, solvents
- 6/12 . . Separation of polymers from solutions
- 6/14 . Treatment of polymer emulsions
- 6/16 . . Purification
- 6/18 . . Increasing the size of the dispersed particles
- 6/20 . . Concentration
- 6/22 . . Coagulation
- 6/24 . Treatment of polymer suspensions
- 6/26 . Treatment of polymers prepared in bulk {also solid polymers or polymer melts}
- 6/28 . . Purification

8/00 **Chemical modification by after-treatment** (graft polymers, block polymers, crosslinking with unsaturated monomers or with polymers C08F 251/00 - C08F 299/00; of conjugated diene rubbers C08C; crosslinking in general C08J)

NOTE

Classification is given in the form of C-Sets when sufficient information is provided concerning the polymer to be modified. In groups C08F 8/00 - C08F 8/50, the chemical modification of specific polymers is indicated using the subdivisions of C08F 10/00 - C08F 34/04, C08F 38/00 - C08F 38/04, C08F 110/00 - C08F 134/04, C08F 138/00 - C08F 138/04, C08F 210/00 - C08F 234/04, C08F 238/00 - C08F 299/08. Example: (C08F 8/44, C08F 16/06) Otherwise, only the C08F 8/00 - C08F 8/50 symbol(s) is (are) given.

- 8/02 . Alkylation
- 8/04 . Reduction, e.g. hydrogenation

- 8/06 . Oxidation
- 8/08 . Epoxidation
- 8/10 . Acylation
- 8/12 . Hydrolysis
- 8/14 . Esterification
- 8/16 . . Lactonisation
- 8/18 . Introducing halogen atoms or halogen-containing groups
- 8/20 . . Halogenation
- 8/22 . . . by reaction with free halogens
- 8/24 . . Haloalkylation
- 8/26 . Removing halogen atoms or halogen-containing groups from the molecule
- 8/28 . Condensation with aldehydes or ketones
- 8/30 . Introducing nitrogen atoms or nitrogen-containing groups (polymeric products of isocyanates or thiocyanates C08G)
- 8/32 . . by reaction with amines
- 8/34 . Introducing sulfur atoms or sulfur-containing groups
- 8/36 . . Sulfonation; Sulfation
- 8/38 . . Sulfohalogenation
- 8/40 . Introducing phosphorus atoms or phosphorus-containing groups
- 8/42 . Introducing metal atoms or metal-containing groups
- 8/44 . Preparation of metal salts or ammonium salts
- 8/46 . Reaction with unsaturated dicarboxylic acids or anhydrides thereof, e.g. maleinisation
- 8/48 . Isomerisation; Cyclisation

NOTE

When the cyclisation is an epoxidation, C08F 8/08 takes precedence. When the cyclisation is a lactonisation, C08F 8/16 takes precedence.

- 8/50 . Partial depolymerisation

Homopolymers and copolymers

- 10/00 Homopolymers and copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond**

NOTE

In groups C08F 10/00 - C08F 10/14 the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of C08F 2/00 - C08F 2/58 or of C08F 4/00 - C08F 4/82 in the form of C-Sets. Example: (C08F 10/02, C08F 4/651)

- 10/02 . Ethene
- 10/04 . Monomers containing three or four carbon atoms
- 10/06 . . Propene
- 10/08 . . Butenes
- 10/10 . . . Isobutene
- 10/14 . Monomers containing five or more carbon atoms

12/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring

NOTES

1. Until March 2012, in groups C08F 12/04 - C08F 12/08 the method of polymerisation might be indicated using the subdivision of C08F 2/02 - C08F 2/06, C08F 2/16 - C08F 2/30, C08F 2/34 or C08F 2/38 - C08F 2/46 in the form of C-sets; the nature of the catalyst might be indicated using the subdivision of C08F 4/00 - C08F 4/60, C08F 4/62, C08F 4/64 or C08F 4/68 - C08F 4/82 in the form of C-Sets. Example: (C08F 12/08, C08F 2/20)
2. From April 2012 on, in groups C08F 12/00 - C08F 12/36 the method of polymerisation may be indicated using the subdivision of C08F 2/00 - C08F 2/60 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 - C08F 4/82 in the form of C-Sets. Example: (C08F 12/08, C08F 2/56)

- 12/02 . Monomers containing only one unsaturated aliphatic radical
- 12/04 . . containing one ring
- 12/06 . . . Hydrocarbons
- 12/08 Styrene
- 12/12 Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical
- 12/14 . . . substituted by hetero atoms or groups containing heteroatoms
- 12/16 Halogens
- 12/18 Chlorine
- 12/20 Fluorine
- 12/22 Oxygen
- 12/24 Phenols or alcohols
- 12/26 Nitrogen
- 12/28 Amines
- 12/30 Sulfur
- 12/32 . . containing two or more rings
- 12/34 . Monomers containing two or more unsaturated aliphatic radicals
- 12/36 . . Divinylbenzene

14/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen

- 14/02 . Monomers containing chlorine
- 14/04 . . Monomers containing two carbon atoms
- 14/06 . . . Vinyl chloride

NOTE

In group C08F 14/06 the method of polymerisation may be indicated using the subdivision of C08F 2/02 - C08F 2/06, C08F 2/16 - C08F 2/30, C08F 2/34 or C08F 2/38 - C08F 2/46 in the form of C-Sets. Example: (C08F 14/06, C08F 2/44)

- 14/08 . . . Vinylidene chloride
- 14/12 . . . 1,2- Dichloroethene
- 14/14 . . Monomers containing three or more carbon atoms
- 14/16 . Monomers containing bromine or iodine
- 14/18 . Monomers containing fluorine

NOTE

In group [C08F 14/18](#) and subgroups, the method of polymerisation may be indicated using the subdivision of [C08F 2/02](#), [C08F 2/04](#), [C08F 2/16](#), [C08F 2/38](#), [C08F 2/44](#) and [C08F 2/46](#) in the form of C-Sets. Example: ([C08F 14/22](#), [C08F 2/38](#))

- 14/185 . . {Monomers containing fluorine not covered by the groups [C08F 14/20](#) - [C08F 14/28](#)}
- 14/20 . . Vinyl fluoride
- 14/22 . . Vinylidene fluoride
- 14/24 . . Trifluorochloroethene
- 14/26 . . Tetrafluoroethene
- 14/28 . . Hexafluoropropene

16/00 Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical

- 16/02 . by an alcohol radical
- 16/04 . . Acyclic compounds
- 16/06 . . . Polyvinyl alcohol {; Vinyl alcohol}
- 16/08 . . . Allyl alcohol
- 16/10 . . Carbocyclic compounds
- 16/12 . by an ether radical
- 16/14 . . Monomers containing only one unsaturated aliphatic radical
- 16/16 . . . Monomers containing no hetero atoms other than the ether oxygen
- 16/18 Acyclic compounds
- 16/20 Monomers containing three or more carbon atoms in the unsaturated aliphatic radical
- 16/22 Carbocyclic compounds
- 16/24 . . . Monomers containing halogen
- 16/26 . . . Monomers containing oxygen atoms in addition to the ether oxygen
- 16/28 . . . Monomers containing nitrogen
- 16/30 . . . Monomers containing sulfur
- 16/32 . . Monomers containing two or more unsaturated aliphatic radicals
- 16/34 . by an aldehydo radical
- 16/36 . by a ketonic radical
- 16/38 . by an acetal or ketal radical

18/00 Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid

- 18/02 . Esters of monocarboxylic acids
- 18/04 . . Vinyl esters
- 18/06 . . . Vinyl formate
- 18/08 . . . Vinyl acetate

- 18/10 . . . of monocarboxylic acids containing three or more carbon atoms
- 18/12 . . with unsaturated alcohols containing three or more carbon atoms
- 18/14 . Esters of polycarboxylic acids
- 18/16 . . with alcohols containing three or more carbon atoms
- 18/18 . . . Diallyl phthalate
- 18/20 . Esters containing halogen
- 18/22 . Esters containing nitrogen
- 18/24 . Esters of carbonic or haloformic acids

20/00 Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and only one being terminated by only one carboxyl radical or a salt, anhydride, ester, amide, imide or nitrile thereof

- 20/02 . Monocarboxylic acids having less than ten carbon atoms, Derivatives thereof
- 20/04 . . Acids, Metal salts or ammonium salts thereof
- 20/06 . . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof
- 20/08 . . Anhydrides
- 20/10 . . Esters

NOTE

In groups [C08F 20/12](#) - [C08F 20/14](#) the method of polymerisation may be indicated using the subdivision of [C08F 2/02](#) - [C08F 2/06](#), [C08F 2/16](#) - [C08F 2/30](#), [C08F 2/34](#) or [C08F 2/38](#) - [C08F 2/46](#) in the form of C-Sets. Example: ([C08F 20/12](#), [C08F 2/26](#))

- 20/12 . . . of monohydric alcohols or phenols
- 20/14 Methyl esters
- 20/16 of phenols or of alcohols containing two or more carbon atoms
- 20/18 with acrylic or methacrylic acids
- 20/20 . . . of polyhydric alcohols or phenols
- 20/22 . . . Esters containing halogen
- 20/24 containing perhaloalkyl radicals
- 20/26 . . . Esters containing oxygen in addition to the carboxy oxygen
- 20/28 containing no aromatic rings in the alcohol moiety
- 20/30 containing aromatic rings in the alcohol moiety
- 20/32 containing epoxy radicals
- 20/34 . . . Esters containing nitrogen
- 20/36 containing oxygen in addition to the carboxy oxygen
- 20/38 . . . Esters containing sulfur
- 20/40 . . . Esters of unsaturated alcohols
- 20/42 . . Nitriles
- 20/44 . . . Acrylonitrile

NOTE

In group [C08F 20/44](#) the method of polymerisation may be indicated using the subdivision of [C08F 2/02](#) - [C08F 2/06](#), [C08F 2/16](#) - [C08F 2/30](#), [C08F 2/34](#) or

C08F 20/44

(continued)

[C08F 2/38](#) - [C08F 2/46](#) in the form of C-Sets. Example: ([C08F 20/44](#), [C08F 2/46](#))

- 20/50 . . . containing four or more carbon atoms
- 20/52 . . Amides or imides
- 20/54 . . . Amides
- 20/56 Acrylamide; Methacrylamide
- 20/58 containing oxygen in addition to the carbonamido oxygen
- 20/60 containing nitrogen in addition to the carbonamido nitrogen
- 20/62 . Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof
- 20/64 . . Acids; Metal salts or ammonium salts thereof
- 20/66 . . Anhydrides
- 20/68 . . Esters
- 20/70 . . Nitriles; Amides; Imides
- 22/00 Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides or nitriles thereof**
- 22/02 . Acids; Metal salts or ammonium salts thereof
- 22/04 . Anhydrides, e.g. cyclic anhydrides
- 22/06 . . Maleic anhydride
- 22/10 . Esters
- 22/105 . . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylate}
- 22/12 . . of phenols or saturated alcohols { ([C08F 22/105](#) takes precedence) }
- 22/14 . . . Esters having no free carboxylic acid groups
- 22/16 . . . Esters having free carboxylic acid groups
- 22/18 . . . Esters containing halogen
- 22/20 . . . Esters containing oxygen in addition to the carboxy oxygen
- 22/22 . . . Esters containing nitrogen
- 22/24 . . . Esters containing sulfur
- 22/26 . . of unsaturated alcohols { ([C08F 22/105](#) takes precedence) }
- 22/28 . . . Diallyl maleate
- 22/30 . Nitriles
- 22/32 . . Alpha-cyano-acrylic acid; Esters thereof
- 22/34 . . Vinylidene cyanide
- 22/36 . Amides or imides
- 22/38 . . Amides
- 22/385 . . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}
- 22/40 . . Imides, e.g. cyclic imides
- 24/00 Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen (cyclic esters of polyfunctional acids [C08F 18/00](#); cyclic anhydrides of unsaturated acids [C08F 20/00](#), [C08F 22/00](#))**

26/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen

- 26/02 . by a single or double bond to nitrogen
- 26/04 . . Diallylamine
- 26/06 . by a heterocyclic ring containing nitrogen
- 26/08 . . N-Vinyl-pyrrolidine
- 26/10 . . N-Vinyl-pyrrolidone
- 26/12 . . N-Vinyl-carbazole

28/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur

- 28/02 . by a bond to sulfur
- 28/04 . . Thioethers
- 28/06 . by a heterocyclic ring containing sulfur

30/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing phosphorus, selenium, tellurium or a metal (metal salts, e.g. phenolates or alcoholates, see the parent compounds)

- 30/02 . containing phosphorus
- 30/04 . containing a metal
- 30/06 . . containing boron
- 30/08 . . containing silicon
- 30/10 . . containing germanium

32/00

Homopolymers and copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system

- 32/02 . having no condensed rings
- 32/04 . . having one carbon-to-carbon double bond
- 32/06 . . having two or more carbon-to-carbon double bonds
- 32/08 . having two condensed rings ([coumarone-indene polymers C08F 244/00](#))

34/00

Homopolymers and copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a heterocyclic ring (cyclic esters of polyfunctional acids [C08F 18/00](#); cyclic anhydrides or imides [C08F 22/00](#))

- 34/02 . in a ring containing oxygen ([coumarone-indene polymers C08F 244/00](#))
- 34/04 . in a ring containing sulfur

36/00

Homopolymers and copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds ([C08F 32/00](#) takes precedence)

NOTE

In [C08F 36/00](#) - [C08F 36/22](#) the method of polymerisation may be indicated using the subdivision of [C08F 2/00](#) - [C08F 2/58](#) in the form of C-Sets; the nature of the catalyst

C08F 36/00

(continued)

may be indicated using the subdivision of [C08F 4/00](#) - [C08F 4/60](#), [C08F 4/62](#), [C08F 4/64](#), [C08F 4/642](#), [C08F 4/6421](#), [C08F 4/643](#) or [C08F 4/68](#) - [C08F 4/82](#) in the form of C-Sets.
Example: ([C08F 36/04](#), [C08F 4/642](#))

- 36/02 . the radical having only two carbon-to-carbon double bonds
- 36/04 . . conjugated
- 36/045 . . . {conjugated hydrocarbons other than butadiene or isoprene}
- 36/06 . . . Butadiene
- 36/08 . . . Isoprene
- 36/14 . . . containing elements other than carbon and hydrogen
- 36/16 containing halogen
- 36/18 containing chlorine
- 36/20 . . unconjugated
- 36/22 . the radical having three or more carbon-to-carbon double bonds
- 38/00 Homopolymers and copolymers of compounds having one or more carbon-to-carbon triple bonds**
- 38/02 . Acetylene
- 38/04 . Vinylacetylene

Homopolymers

- 110/00 Homopolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond**

NOTE

In groups [C08F 110/00](#) - [C08F 110/14](#) the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of [C08F 2/00](#) - [C08F 2/58](#) or of [C08F 4/00](#) - [C08F 4/82](#) in the form of C-Sets.
Example: ([C08F 110/14](#), [C08F 4/6592](#))

- 110/02 . Ethene
- 110/04 . Monomers containing three or four carbon atoms
- 110/06 . . Propene
- 110/08 . . Butenes
- 110/10 . . . Isobutene
- 110/14 . Monomers containing five or more carbon atoms

- 112/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring**

NOTE

From April 2012 on, in groups [C08F 112/00](#) - [C08F 112/36](#) the method of polymerisation may be indicated using the subdivision of [C08F 2/00](#) - [C08F 2/60](#) in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of [C08F 4/00](#) - [C08F 4/82](#) in the form of C-Sets.
Example: ([C08F 112/08](#), [C08F 4/70](#))

- 112/02 . Monomers containing only one unsaturated aliphatic radical
- 112/04 . . containing one ring
- 112/06 . . . Hydrocarbons

- 112/08 Styrene
- 112/12 Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical
- 112/14 . . . substituted by hetero atoms or groups containing heteroatoms
- 112/32 . . containing two or more rings
- 112/34 . Monomers containing two or more unsaturated aliphatic radicals
- 112/36 . . Divinylbenzene
- 114/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen**
- 114/02 . Monomers containing chlorine
- 114/04 . . Monomers containing two carbon atoms
- 114/06 . . . Vinyl chloride
- 114/08 . . . Vinylidene chloride
- 114/12 . . . 1,2- Dichloroethene
- 114/14 . . Monomers containing three or more carbon atoms
- 114/16 . Monomers containing bromine or iodine
- 114/18 . Monomers containing fluorine
- 114/185 . . {Monomers containing fluorine not covered by the groups [C08F 114/20](#) - [C08F 114/28](#)}
- 114/20 . . Vinyl fluoride
- 114/22 . . Vinylidene fluoride
- 114/24 . . Trifluorochloroethene
- 114/26 . . Tetrafluoroethene
- 114/28 . . Hexafluoropropene
- 116/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical**
- 116/02 . by an alcohol radical
- 116/04 . . Acyclic compounds
- 116/06 . . . Polyvinyl alcohol {; Vinyl alcohol}
- 116/08 . . . Allyl alcohol
- 116/10 . . Carbocyclic compounds
- 116/12 . by an ether radical
- 116/14 . . Monomers containing only one unsaturated aliphatic radical
- 116/16 . . . Monomers containing no hetero atoms other than the ether oxygen
- 116/18 Acyclic compounds
- 116/20 Monomers containing three or more carbon atoms in the unsaturated aliphatic radical
- 116/34 . by an aldehydo radical
- 116/36 . by a ketonic radical
- 116/38 . by a acetal or ketal radical
- 118/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid**
- 118/02 . Esters of monocarboxylic acids
- 118/04 . . Vinyl esters
- 118/06 . . . Vinyl formate
- 118/08 . . . Vinyl acetate

- 118/10 . . . of monocarboxylic acids containing three or more carbon atoms
- 118/12 . . with unsaturated alcohols containing three or more carbon atoms
- 118/14 . Esters of polycarboxylic acids
- 118/16 . . with alcohols containing three or more carbon atoms
- 118/18 . . . Diallyl phthalate
- 120/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and only one being terminated by only one carboxyl radical or a salt, anhydride, ester, amide, imide or nitrile thereof**
- 120/02 . Monocarboxylic acids having less than ten carbon atoms; Derivatives thereof
- 120/04 . . Acids; Metal salts or ammonium salts thereof
- 120/06 . . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof
- 120/08 . . Anhydrides
- 120/10 . . Esters
- 120/12 . . . of monohydric alcohols or phenols
- 120/14 Methyl esters
- 120/16 of phenols or of alcohols containing two or more carbon atoms
- 120/18 with acrylic or methacrylic acids
- 120/20 . . . of polyhydric alcohols or phenols
- 120/22 . . . Esters containing halogen
- 120/24 containing perhaloalkyl radicals
- 120/26 . . . Esters containing oxygen in addition to the carboxy oxygen
- 120/28 containing no aromatic rings in the alcohol moiety
- 120/30 containing aromatic rings in the alcohol moiety
- 120/32 containing epoxy radicals
- 120/34 . . . Esters containing nitrogen
- 120/36 containing oxygen in addition to the carboxy oxygen
- 120/38 . . . Esters containing sulfur
- 120/40 . . . Esters of unsaturated alcohols
- 120/42 . . Nitriles
- 120/44 . . . Acrylonitrile
- 120/50 . . . containing four or more carbon atoms
- 120/52 . . Amides or imides
- 120/54 . . . Amides
- 120/56 Acrylamide; Methacrylamide
- 120/58 containing oxygen in addition to the carbonamido oxygen
- 120/60 containing nitrogen in addition to the carbonamido nitrogen
- 120/62 . Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof
- 120/64 . . Acids; Metal salts or ammonium salts thereof
- 120/66 . . Anhydrides
- 120/68 . . Esters
- 120/70 . . Nitriles; Amides; Imides

122/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides or nitriles thereof

- 122/02 . Acids; Metal salts or ammonium salts thereof
- 122/04 . Anhydrides, e.g. cyclic anhydrides
- 122/06 . . Maleic anhydride
- 122/10 . Esters
- 122/105 . . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylat}
- 122/12 . . of phenols or saturated alcohols {(C08F 122/105 takes precedence)}
- 122/14 . . . Esters having no free carboxylic acid groups
- 122/16 . . . Esters having free carboxylic acid groups
- 122/18 . . . Esters containing halogen
- 122/20 . . . Esters containing oxygen in addition to the carboxy oxygen
- 122/22 . . . Esters containing nitrogen
- 122/24 . . . Esters containing sulfur
- 122/26 . . of unsaturated alcohols {(C08F 122/105 takes precedence)}
- 122/28 . . . Diallyl maleate
- 122/30 . Nitriles
- 122/32 . . Alpha-cyano-acrylic acid; Esters thereof
- 122/34 . . Vinylidene cyanide
- 122/36 . Amides or imides
- 122/38 . . Amides
- 122/385 . . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}
- 122/40 . . Imides, e.g. cyclic imides

124/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen (cyclic esters of polyfunctional acids C08F 118/00; cyclic anhydrides of unsaturated acids C08F 120/00, C08F 122/00)

126/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen

- 126/02 . by a single or double bond to nitrogen
- 126/04 . . Diallylamine
- 126/06 . by a heterocyclic ring containing nitrogen
- 126/08 . . N-Vinyl-pyrrolidine
- 126/10 . . N-Vinyl-pyrrolidone
- 126/12 . . N-Vinyl-carbazole

128/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur

- 128/02 . by a bond to sulfur
- 128/04 . . Thioethers
- 128/06 . by a heterocyclic ring containing sulfur

130/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing phosphorus, selenium, tellurium or a metal (metal salts, e.g. phenolates or alcoholates, see the parent compounds)

- 130/02 . containing phosphorus
- 130/04 . containing a metal
- 130/06 . . containing boron
- 130/08 . . containing silicon
- 130/10 . . containing germanium

132/00 Homopolymers of cyclic compounds containing no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system

- 132/02 . having no condensed rings
- 132/04 . . having one carbon-to-carbon double bond
- 132/06 . . having two or more carbon-to-carbon double bonds
- 132/08 . having condensed rings

134/00 Homopolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a heterocyclic ring (cyclic esters of polyfunctional acids C08F 118/00; cyclic anhydrides or imides C08F 122/00)

- 134/02 . in a ring containing oxygen
- 134/04 . in a ring containing sulfur

136/00 Homopolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds (C08F 132/00 takes precedence)

NOTE

In C08F 136/00 - C08F 136/22 the method of polymerisation may be indicated using the subdivision of C08F 2/00 - C08F 2/58 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 - C08F 4/60, C08F 4/62, C08F 4/64, C08F 4/642, C08F 4/6421, C08F 4/643 or C08F 4/68 - C08F 4/82 in the form of C-Sets.
Example: (C08F 136/18, C08F 2/26)

- 136/02 . the radical having only two carbon-to-carbon double bonds
- 136/04 . . conjugated
- 136/045 . . . {conjugated hydrocarbons other than butadiene or isoprene}
- 136/06 . . . Butadiene
- 136/08 . . . Isoprene
- 136/14 . . . containing elements other than carbon and hydrogen
- 136/16 containing halogen
- 136/18 containing chlorine
- 136/20 . . unconjugated
- 136/22 . the radical having three or more carbon-to-carbon double bonds

138/00 Homopolymers of compounds having one or more carbon-to-carbon triple bonds

- 138/02 . Acetylene
- 138/04 . Vinylacetylene

Copolymers

210/00 Copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond

NOTE

In C08F 210/00 - C08F 210/18 the method of polymerisation or the nature of the catalyst may be indicated using the subdivision of C08F 2/00 - C08F 2/58 or of C08F 4/00 - C08F 4/82 in the form of C-Sets.
Example: (C08F 210/06, C08F 4/04)

- 210/02 . Ethene
- 210/04 . Monomers containing three or four carbon atoms
- 210/06 . . Propene
- 210/08 . . Butenes
- 210/10 . . . Isobutene
- 210/12 with conjugated diolefins, e.g. butyl rubber
- 210/14 . Monomers containing five or more carbon atoms
- 210/16 . Copolymers of ethene with alpha-alkenes, e.g. EP rubbers
- 210/18 . . with non-conjugated dienes, e.g. EPT rubbers

212/00 Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring

NOTE

From April 2012 on, in groups C08F 212/00 - C08F 212/36 the method of polymerisation may be indicated using the subdivision of C08F 2/00 - C08F 2/60 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 - C08F 4/82 in the form of C-Sets.
Example: (C08F 212/08, C08F 4/16)

- 212/02 . Monomers containing only one unsaturated aliphatic radical
- 212/04 . . containing one ring
- 212/06 . . . Hydrocarbons
- 212/08 Styrene
- 212/10 with nitriles
- 212/12 Monomers containing a branched unsaturated aliphatic radical or a ring substituted by an alkyl radical
- 212/14 . . . substituted by heteroatoms or groups containing heteroatoms
- 212/145 {the heteroatoms being part of ester groups derived from unsaturated acids}
- 212/32 . . containing two or more rings
- 212/34 . Monomers containing two or more unsaturated aliphatic radicals
- 212/36 . . Divinylbenzene

214/00 Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen

- 214/02 . Monomers containing chlorine
- 214/04 . . Monomers containing two carbon atoms
- 214/06 . . . Vinyl chloride
- 214/08 . . . Vinylidene chloride

214/10	. . . . with nitriles	2216/1491	. . . . {Monomers containing sulfur, oxygen and nitrogen}
214/12	. . . 1,2-Dichloroethene	216/16	. . . Monomers containing no hetero atoms other than the ether oxygen
214/14	. . Monomers containing three or more carbon atoms	216/165	. . . . {Carbocyclic compounds}
214/16	. Monomers containing bromine or iodine	216/18	. . . . Acyclic compounds
214/18	. Monomers containing fluorine	216/20	. . . . Monomers containing three or more carbon atoms in the unsaturated aliphatic radical
214/182	. . {Monomers containing fluorine not covered by the groups C08F 214/20 - C08F 214/28}	216/34	. by an aldehydo radical
214/184	. . {with fluorinated vinyl ethers}	216/36	. by a ketonic radical
214/186	. . {with non-fluorinated comonomers}	216/38	. by an acetal or ketal radical
214/188	. . . {with non-fluorinated vinyl ethers}	218/00	Copolymers having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid
214/20	. . Vinyl fluoride	218/02	. Esters of monocarboxylic acids
214/202	. . . {with fluorinated vinyl ethers}	218/04	. . Vinyl esters
214/205	. . . {with non-fluorinated comonomers}	218/06	. . . Vinyl formate
214/207	. . . . {with non-fluorinated vinyl ethers}	218/08	. . . Vinyl acetate
214/22	. . Vinylidene fluoride	218/10	. . . of monocarboxylic acids containing three or more carbon atoms
214/222	. . . {with fluorinated vinyl ethers}	218/12	. . with unsaturated alcohols containing three or more carbon atoms
214/225	. . . {with non-fluorinated comonomers}	218/14	. Esters of polycarboxylic acids
214/227	. . . . {with non-fluorinated vinyl ethers}	218/16	. . with alcohols containing three or more carbon atoms
214/24	. . Trifluorochloroethene	218/18	. . . Diallyl phthalate
214/242	. . . {with fluorinated vinyl ethers}	2218/20	. {Esters containing halogen}
214/245	. . . {with non-fluorinated comonomers}	2218/22	. {Esters containing nitrogen}
214/247	. . . . {with non-fluorinated vinyl ethers}	2218/24	. {Esters of carbonic or haloformic acids}
214/26	. . Tetrafluoroethene	2218/245	. . {Esters of carbonic or haloformic acids, e.g. allyl carbonate}
214/262	. . . {with fluorinated vinyl ethers}	220/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and only one being terminated by only one carboxyl radical or a salt, anhydride ester, amide, imide or nitrile thereof
214/265	. . . {with non-fluorinated comonomers}	220/02	. Monocarboxylic acids having less than ten carbon atoms; Derivatives thereof
214/267	. . . . {with non-fluorinated vinyl ethers}	220/04	. . Acids; Metal salts or ammonium salts thereof
214/28	. . Hexafluoropropene	220/06	. . . Acrylic acid; Methacrylic acid; Metal salts or ammonium salts thereof
214/282	. . . {with fluorinated vinyl ethers}	220/08	. . Anhydrides
214/285	. . . {with non-fluorinated comonomers}	220/10	. . Esters
214/287	. . . . {with non-fluorinated vinyl ethers}	220/12	. . . of monohydric alcohols or phenols
216/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical	220/14	. . . . Methyl esters
216/02	. by an alcohol radical	220/16	. . . . of phenols or of alcohols containing two or more carbon atoms
216/04	. . Acyclic compounds	220/18	. . . . with acrylic or methacrylic acids
216/06	. . . Polyvinyl alcohol {; Vinyl alcohol}	2220/1808	. . . . . {Ethyl or undefined short-chain (meth)acrylate}
216/08	. . . Allyl alcohol	2220/1816	. . . . . {Propyl(meth)acrylate}
2216/085	. . . . {Allyl alcohol alkoxylate}	2220/1825	. . . . . {Butyl(meth)acrylate}
216/10	. . Carbocyclic compounds	2220/1833	. . . . . {Pentyl or undefined long chain (meth)acrylate}
216/12	. by an ether radical	2220/1841	. . . . . {Hexyl(meth)acrylate}
216/125	. . {monomers containing two or more unsaturated aliphatic radicals}	2220/185	. . . . . {Heptyl(meth)acrylate}
216/14	. . Monomers containing only one unsaturated aliphatic radical	2220/1858	. . . . . {(iso)Octyl(meth)acrylate}
216/1408	. . . {Monomers containing halogen}		
216/1416	. . . {Monomers containing oxygen in addition to the ether oxygen}		
2216/1425	. . . . {Monomers containing side chains of polyether groups}		
2216/1433	. . . . . {Monomers containing side chains of polyethyleneoxide groups}		
2216/1441	. . . . . {Monomers containing side chains of polypropyleneoxide groups}		
2216/145	. . . . . {Monomers containing side chains of polyethylene-co-propyleneoxide groups}		
216/1458	. . . {Monomers containing nitrogen}		
216/1466	. . . {Monomers containing sulfur}		
2216/1475	. . . . {Monomers containing sulfur and oxygen}		
2216/1483	. . . . {Monomers containing sulfur and nitrogen}		

2220/1866	. . . . . {C9-(meth)Acrylate}	220/60	. . . . containing nitrogen in addition to the carbonamido nitrogen
2220/1875	. . . . . {(iso)Decyl(meth)acrylate}	2220/603	. . . . . {and containing oxygen in addition to the carbonamido oxygen and nitrogen}
2220/1883	. . . . . {Lauryl(meth)acrylate}	2220/606	. . . . . {and containing other heteroatoms}
2220/1891	. . . . . {Longer chain (meth)acrylate}	220/62	. Monocarboxylic acids having ten or more carbon atoms; Derivatives thereof (copolymers of drying oils C08F 242/00)
220/20	. . . of polyhydric alcohols or phenols	220/64	. . Acids; Metal salts or ammonium salts thereof
220/22	. . . Esters containing halogen	220/66	. . Anhydrides
220/24	. . . . containing perhaloalkyl radicals	220/68	. . Esters
220/26	. . . Esters containing oxygen in addition to the carboxy oxygen	220/70	. . Nitriles; Amides; Imides
220/28	. . . . containing no aromatic rings in the alcohol moiety	222/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical and containing at least one other carboxyl radical in the molecule; Salts, anhydrides, esters, amides, imides, or nitriles thereof
2220/281	. . . . . {and containing only one oxygen}	222/02	. Acids; Metal salts or ammonium salts thereof
2220/282	. . . . . {and containing two or more oxygen atoms}	222/04	. Anhydrides, e.g. cyclic anhydrides
2220/283	. . . . . {and containing one or more carboxylic moiety in the chain}	222/06	. . Maleic anhydride
2220/285	. . . . . {and containing an ether chain in the alcohol moiety}	222/08	. . . with vinyl aromatic monomers
2220/286	. . . . . {and containing polyethylenoxide in the alcohol moiety}	222/10	. Esters
2220/287	. . . . . {and containing polypropylenoxide in the alcohol moiety}	222/1006	. . {of polyhydric alcohols or polyhydric phenols, e.g. ethylene glycol dimethacrylat}
2220/288	. . . . . {and containing polypropylen-co-ethylen oxide in the alcohol moiety}	2222/1013	. . . {of dialcohols}
220/30	. . . . containing aromatic rings in the alcohol moiety	2222/102	. . . . {of aromatic dialcohols}
2220/301	. . . . . {and one oxygen in the alcohol moiety}	2222/1026	. . . {of trialcohols}
2220/302	. . . . . {and two or more oxygen atoms in the alcohol moiety}	2222/1033	. . . . {of aromatic trialcohols}
2220/303	. . . . . {and one or more carboxylic moieties in the chain}	2222/104	. . . {of tetraalcohols}
2220/305	. . . . . {and ether chain in the alcohol moiety}	2222/1046	. . . . {of aromatic tetraalcohols}
2220/306	. . . . . {and polythylenoxide chain in the alcohol moiety}	2222/1053	. . . {of pentaalcohols}
2220/307	. . . . . {and polypropylene oxide chain in the alcohol moiety}	2222/106	. . . . {of aromatic pentaalcohols}
2220/308	. . . . . {and polyethylene-co-propylene oxide chain in the alcohol moiety}	2222/1066	. . . {Esters of polycondensation macromers}
220/32	. . . . containing epoxy radicals	2222/1073	. . . . {of alcohol terminated polyesters or polycarbonates}
2220/325	. . . . . {containing glycidyl radical}	2222/108	. . . . {of alcohol terminated polyethers}
220/34	. . . Esters containing nitrogen	2222/1086	. . . . {of alcohol terminated (poly)urethanes}
2220/343	. . . . {in the form of urethane links}	2222/1093	. . . . {of alcohol terminated epoxy functional polymers}
2220/346	. . . . . {and further oxygen}	222/12	. . of phenols or saturated alcohols (C08F 222/1006 takes precedence)
220/36	. . . . containing oxygen in addition to the carboxy oxygen	222/14	. . . Esters having no free carboxylic acid groups
2220/365	. . . . . {containing further carboxylic moieties}	2222/145	. . . . {the ester chains containing seven or more carbon atoms}
220/38	. . . Esters containing sulfur	222/16	. . . Esters having free carboxylic acid groups
2220/382	. . . . {and containing oxygen}	2222/165	. . . . {the ester chains containing seven or more carbon atoms}
2220/385	. . . . {and containing nitrogen}	222/18	. . . Esters containing halogen
2220/387	. . . . {and containing nitrogen and oxygen}	2222/185	. . . . {the ester chains containing seven or more carbon atoms}
220/40	. . . Esters of unsaturated alcohols	222/20	. . . Esters containing oxygen in addition to the carboxy oxygen
220/42	. . Nitriles	2222/205	. . . . {the ester chains containing seven or more carbon atoms}
220/44	. . . Acrylonitrile	222/22	. . . Esters containing nitrogen
220/46	. . . . with carboxylic acids, sulfonic acids or salts thereof	2222/225	. . . . {the ester chains containing seven or more carbon atoms}
220/48	. . . . with nitrogen-containing monomers	222/24	. . . Esters containing sulfur
220/50	. . . containing four or more carbon atoms	2222/245	. . . . {the ester chains containing seven or more carbon atoms}
220/52	. . Amides or imides		
220/54	. . . Amides		
220/56	. . . . Acrylamide; Methacrylamide		
220/58	. . . . containing oxygen in addition to the carbonamido oxygen		
2220/585	. . . . . {and containing other heteroatoms}		

222/26	. . of unsaturated alcohols { (C08F 222/1006 takes precedence) }	230/02	. containing phosphorus
222/28	. . . Diallyl maleate	230/04	. containing a metal
222/30	. Nitriles	230/06	. . containing boron
222/32	. . Alpha-cyano-acrylic acid; Esters thereof	2230/065	. . . {the monomer being a polymerisable additive}
2222/321	. . . {alpha-Cyano-acrylic acid methyl ester}	230/08	. . containing silicon
2222/322	. . . {alpha-Cyano-acrylic acid ethyl ester}	2230/085	. . . {the monomer being a polymerisable additive}
2222/323	. . . {alpha-Cyano-acrylic acid propyl ester}	230/10	. . containing germanium
2222/324	. . . {alpha-Cyano-acrylic acid butyl ester}		
2222/325	. . . {alpha-Cyano-acrylic acid pentyl ester}	232/00	Copolymers of cyclic compounds containing no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic ring system
2222/326	. . . {alpha-Cyano-acrylic acid longer chain ester}	232/02	. having no condensed rings
2222/327	. . . {alpha-Cyano-acrylic acid alkoxy ester}	232/04	. . having one carbon-to-carbon double bond
2222/328	. . . {alpha-Cyano-acrylic acid with more than one oxygen in the ester moiety}	232/06	. . having two or more carbon-to-carbon double bonds
222/34	. . Vinylidene cyanide	232/08	. having condensed rings (coumarone-indene polymers C08F 244/00)
222/36	. Amides or imides		
222/38	. . Amides	234/00	Copolymers of cyclic compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a heterocyclic ring (cyclic esters of polyfunctional acids C08F 218/00; cyclic anhydrides or imides C08F 222/00)
222/385	. . . {Monomers containing two or more (meth)acrylamide groups, e.g. N,N'-methylenebisacrylamide}	234/02	. in a ring containing oxygen (coumarone-indene polymers C08F 244/00)
222/40	. . Imides, e.g. cyclic imides	234/04	. in a ring containing sulfur
2222/402	. . . {Alkyl substituted imides}		
2222/404	. . . {the substituted imides comprising oxygen other than the carboxy oxygen}	236/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds (C08F 232/00 takes precedence)
2222/406	. . . {the substituted imides comprising nitrogen other than the imide nitrogen}		
2222/408	. . . {the substituted imides comprising other heteroatom}		
224/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen (cyclic esters of polyfunctional acids C08F 218/00; cyclic anhydrides of unsaturated acids C08F 220/00, C08F 222/00)		NOTE
226/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen		In C08F 236/00 - C08F 236/22 the method of polymerisation may be indicated using the subdivision of C08F 2/00 - C08F 2/58 in the form of C-Sets; the nature of the catalyst may be indicated using the subdivision of C08F 4/00 - C08F 4/60 , C08F 4/62 , C08F 4/64 , C08F 4/642 , C08F 4/6421 , C08F 4/643 or C08F 4/68 - C08F 4/82 in the form of C-Sets. Example: (C08F 236/10 , C08F 4/46)
226/02	. by a single or double bond to nitrogen	236/02	. the radical having only two carbon-to-carbon double bonds
226/04	. . Diallylamine	236/04	. . conjugated
226/06	. by a heterocyclic ring containing nitrogen	236/045	. . . {conjugated hydrocarbons other than butadiene or isoprene}
226/08	. . N-Vinyl-pyrrolidone	236/06	. . . Butadiene
226/10	. . N-Vinyl-pyrrolidone	236/08	. . . Isoprene
226/12	. . N-Vinylcarbazole	236/10	. . . with vinyl-aromatic monomers
228/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur	236/12	. . . with nitriles
228/02	. by a bond to sulfur	236/14	. . . containing elements other than carbon and hydrogen
228/04	. . Thioethers	236/16	. . . . containing halogen
228/06	. by a heterocyclic ring containing sulfur	236/18	. . . . . containing chlorine
230/00	Copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing phosphorus, selenium, tellurium or a metal (metal salts, e.g. phenolates or alcoholates, see the parent compounds)	236/20	. . unconjugated
		236/22	. the radical having three or more carbon-to-carbon double bonds
		238/00	Copolymers of compounds having one or more carbon-to-carbon triple bonds
		238/02	. Acetylene
		238/04	. Vinylacetylene

240/00	Copolymers of hydrocarbons and mineral oils, e.g. petroleum resins	261/08	• on to polymers of unsaturated aldehydes
242/00	Copolymers of drying oils with other monomers	261/10	• on to polymers of unsaturated ketones
244/00	Coumarone-indene copolymers	261/12	• on to polymers of unsaturated acetals or ketals
246/00	Copolymers in which the nature of only the monomers in minority is defined	263/00	Macromolecular compounds obtained by polymerising monomers on to polymers of esters of unsaturated alcohols with saturated acids as defined in group C08F 18/00
<u>Graft polymers; Polymers crosslinked with unsaturated monomers</u>		263/02	• on to polymers of vinyl esters with monocarboxylic acids
<u>NOTE</u>		263/04	• • on to polymers of vinyl acetate
In C08F 251/00 - C08F 292/00 the grafted monomer may be indicated using the subdivision of C08F 210/00 - C08F 238/04 preceded by a "+" sign.		263/06	• on to polymers of esters with polycarboxylic acids
Example:		263/08	• • Polymerisation of diallyl phthalate prepolymers
C08F 265/06 + C08F 220/06		265/00	Macromolecular compounds obtained by polymerising monomers on to polymers of unsaturated monocarboxylic acids or derivatives thereof as defined in group C08F 20/00
251/00	Macromolecular compounds obtained by polymerising monomers on to polysaccharides or derivatives thereof	265/02	• on to polymers of acids, salts or anhydrides
251/02	• on to cellulose or derivatives thereof	265/04	• on to polymers of esters
253/00	Macromolecular compounds obtained by polymerising monomers on to natural rubbers or derivatives thereof	265/06	• • Polymerisation of acrylate or methacrylate esters on to polymers thereof
255/00	Macromolecular compounds obtained by polymerising monomers on to polymers of hydrocarbons as defined in group C08F 10/00	<u>NOTE</u>	
255/02	• on to polymers of olefins having two or three carbon atoms	In C08F 265/06 the method of polymerisation may be indicated using the subdivision of C08F 2/02 , C08F 2/16 , C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 265/06 , C08F 2/16)	
255/023	• • {On to modified polymers, e.g. chlorinated polymers}	265/08	• on to polymers of nitriles
255/026	• • {on to ethylene-vinylester copolymers}	265/10	• on to polymers of amides or imides
255/04	• • on to ethene-propene copolymers {(C08F 255/023 takes precedence)}	267/00	Macromolecular compounds obtained by polymerising monomers on to polymers of unsaturated polycarboxylic acids or derivatives thereof as defined in group C08F 22/00
255/06	• • on to ethene-propene-diene terpolymers {(C08F 255/023 takes precedence)}	267/02	• on to polymers of acids or salts
255/08	• on to polymers of olefins having four or more carbon atoms	267/04	• on to polymers of anhydrides
255/10	• • on to butene polymers	267/06	• on to polymers of esters
257/00	Macromolecular compounds obtained by polymerising monomers on to polymers of aromatic monomers as defined in group C08F 12/00	267/08	• on to polymers of nitriles
257/02	• on to polymers of styrene or alkyl-substituted styrenes	267/10	• on to polymers of amides or imides
259/00	Macromolecular compounds obtained by polymerising monomers on to polymers of halogen containing monomers as defined in group C08F 14/00	269/00	Macromolecular compounds obtained by polymerising monomers on to polymers of heterocyclic oxygen-containing monomers as defined in group C08F 24/00
259/02	• on to polymers containing chlorine	271/00	Macromolecular compounds obtained by polymerising monomers on to polymers of nitrogen-containing monomers as defined in group C08F 26/00
259/04	• • on to polymers of vinyl chloride	271/02	• on to polymers of monomers containing heterocyclic nitrogen
259/06	• • on to polymers of vinylidene chloride	273/00	Macromolecular compounds obtained by polymerising monomers on to polymers of sulfur-containing monomers as defined in group C08F 28/00
259/08	• on to polymers containing fluorine	275/00	Macromolecular compounds obtained by polymerising monomers on to polymers of monomers containing phosphorus, selenium, tellurium or a metal as defined in group C08F 30/00
261/00	Macromolecular compounds obtained by polymerising monomers on to polymers of oxygen-containing monomers as defined in group C08F 16/00		
261/02	• on to polymers of unsaturated alcohols		
261/04	• • on to polymers of vinyl alcohol		
261/06	• on to polymers of unsaturated ethers		

277/00	Macromolecular compounds obtained by polymerising monomers on to polymers of carbocyclic or heterocyclic monomers as defined respectively in group C08F 32/00 or in group C08F 34/00	283/10	• on to polymers containing more than one epoxy radical per molecule {(C08F 283/004 takes precedence)}
279/00	Macromolecular compounds obtained by polymerising monomers on to polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00 NOTE In C08F 279/02 and C08F 279/04 the method of polymerisation may be indicated using the subdivision of C08F 2/02 , C08F 2/16 , C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 279/02 , C08F 2/22)	283/105	• • {on to unsaturated polymers containing more than one epoxy radical per molecule}
279/02	• on to polymers of conjugated dienes	283/12	• on to polysiloxanes
279/04	• • Vinyl aromatic monomers and nitriles as the only monomers	283/122	• • {on to saturated polysiloxanes containing hydrolysable groups, e.g. alkoxy-, thio-, hydroxy-}
279/06	• • Vinyl aromatic monomers and methacrylates as the only monomers	283/124	• • {on to polysiloxanes having carbon-to-carbon double bonds}
281/00	Macromolecular compounds obtained by polymerising monomers on to polymers of monomers having carbon-to-carbon triple bonds as defined in group C08F 38/00	283/126	• • {on to polysiloxanes being the result of polycondensation and radical polymerisation reactions}
283/00	Macromolecular compounds obtained by polymerising monomers on to polymers provided for in subclass C08G {(on to polymers modified by introduction of aliphatic unsaturated end or side groups C08F 290/00)}	283/128	• • {on to reaction products of polysiloxanes having at least one Si-H bond and compounds having carbon-to-carbon double bonds}
283/002	• {on to polymers modified by after-treatment}	283/14	• on to polymers obtained by ring-opening polymerisation of carbocyclic compounds having one or more carbon-to-carbon double bonds in the carbocyclic ring, i.e. polyalkeneamers {(C08F 283/004 takes precedence)}
283/004	• • {modified by incorporation of silicon atoms}	285/00	Macromolecular compounds obtained by polymerising monomers on to preformed graft polymers {(C08F 283/00 takes precedence)}
283/006	• {on to polymers provided for in C08G 18/00 (C08F 283/004 takes precedence)}	287/00	Macromolecular compounds obtained by polymerising monomers on to block polymers {(C08F 283/00 takes precedence)}
283/008	• • {on to unsaturated polymers}	289/00	Macromolecular compounds obtained by polymerising monomers on to macromolecular compounds not provided for in groups C08F 251/00 - C08F 287/00
283/01	• on to unsaturated polyesters {(C08F 283/004 takes precedence)}	290/00	Macromolecular compounds obtained by polymerising monomers on to polymers modified by introduction of aliphatic unsaturated end or side groups
	NOTE After the symbol of group C08F 283/01 - C08F 283/14 and using the C-Sets, notations concerning the method of polymerisation or the nature of the catalyst can be indicated. These notations are selected from groups C08F 2/00 , C08F 2/16 , C08F 2/46 , C08F 2/48 , C08F 2/50 , C08F 4/00 , C08F 4/04 , C08F 4/06 , C08F 4/28 and C08F 4/42 . Example: (C08F 283/01 , C08F 2/16)	290/02	• on to polymers modified by introduction of unsaturated end groups
283/02	• on to polycarbonates or saturated polyesters {(C08F 283/004 takes precedence)}	290/04	• • Polymers provided for in subclasses C08C or C08F
283/04	• on to polycarbonamides, polyesteramides or polyimides {(C08F 283/004 takes precedence)}	290/042	• • • {Polymers of hydrocarbons as defined in group C08F 10/00 }
283/045	• • {on to unsaturated polycarbonamides, polyesteramides or polyimides}	290/044	• • • {Polymers of aromatic monomers as defined in group C08F 12/00 }
283/06	• on to polyethers, polyoxymethylenes or polyacetals {(C08F 283/004 takes precedence)}	290/046	• • • {Polymers of unsaturated carboxylic acids or derivatives thereof}
283/065	• • {on to unsaturated polyethers, polyoxymethylenes or polyacetals}	290/048	• • • {Polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00 }
283/08	• • on to polyphenylene oxides	290/06	• • Polymers provided for in subclass C08G
283/085	• • • {on to unsaturated polyphenylene oxides}	290/061	• • • {Polyesters; Polycarbonates}
		290/062	• • • {Polyethers}
		290/064	• • • {Polymers containing more than one epoxy group per molecule}
		290/065	• • • {Polyamides; Polyesteramides; Polyimides}
		290/067	• • • {Polyurethanes; Polyureas}
		290/068	• • • {Polysiloxanes}
		290/08	• on to polymers modified by introduction of unsaturated side groups
		290/10	• • Polymers provided for in subclass C08B
		290/12	• • Polymers provided for in subclasses C08C or C08F

290/122	. . . {Polymers of hydrocarbons as defined in group C08F 10/00 }	297/00	Macromolecular compounds obtained by successively polymerising different monomer systems using a catalyst of the ionic or coordination type without deactivating the intermediate polymer
290/124	. . . {Polymers of aromatic monomers as defined in group C08F 12/00 }	297/02	. using a catalyst of the anionic type
290/126	. . . {Polymers of unsaturated carboxylic acids or derivatives thereof}	297/023	. . {using a coupling agent}
290/128	. . . {Polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00 }	297/026	. . {polymerising acrylic acid, methacrylic acid or derivatives thereof}
290/14	. . Polymers provided for in subclass C08G	297/04	. . polymerising vinyl aromatic monomers and conjugated dienes
290/141	. . . {Polyesters; Polycarbonates}	297/042	. . . {using a polyfunctional initiator}
290/142	. . . {Polyethers}	297/044	. . . {using a coupling agent}
290/144	. . . {Polymers containing more than one epoxy group per molecule}	297/046	. . . {polymerising vinyl aromatic monomers and isoprene, optionally with other conjugated dienes}
290/145	. . . {Polyamides; Polyesteramides; Polyimides}	297/048	. . . {polymerising vinyl aromatic monomers, conjugated dienes and polar monomers}
290/147	. . . {Polyurethanes; Polyureas}	297/06	. using a catalyst of the coordination type
290/148	. . . {Polysiloxanes}	297/08	. . polymerising mono-olefins
291/00	Macromolecular compounds obtained by polymerising monomers on to macromolecular compounds according to more than one of the groups C08F 251/00 - C08F 289/00	297/083	. . . {the monomers being ethylene or propylene}
	NOTE	297/086	. . . . {the block polymer contains at least three blocks}
	In C08F 291/00 the method of polymerisation may be indicated using the subdivision of C08F 2/02 , C08F 2/16 , C08F 2/18 or C08F 2/22 in the form of C-Sets. Example: (C08F 291/00 , C08F 2/16)	299/00	Macromolecular compounds obtained by interreacting polymers involving only carbon-to-carbon unsaturated bond reactions, in the absence of non-macromolecular monomers (in the presence of non-macromolecular monomers C08F 251/00 - C08F 291/00; involving other reactions C08G 81/00)
291/02	. on to elastomers	299/02	. from unsaturated polycondensates
291/04	. on to halogen-containing macromolecules	299/022	. . {from polycondensates with side or terminal unsaturations}
291/06	. on to oxygen-containing macromolecules	299/024	. . . {the unsaturation being in acrylic or methacrylic groups}
291/08	. . on to macromolecules containing hydroxy radicals	299/026	. . {from the reaction products of polyepoxides and unsaturated monocarboxylic acids, their anhydrides, halogenides or esters with low molecular weight}
291/10	. . on to macromolecules containing epoxy radicals	299/028	. . . {photopolymerisable compositions}
291/12	. on to nitrogen-containing macromolecules	299/04	. . from polyesters
291/14	. on to sulfur-containing macromolecules	299/0407	. . . {Processes of polymerisation}
291/16	. on to macromolecules containing more than two metal atoms	299/0414	. . . . {Suspension or emulsion polymerisation}
291/18	. on to irradiated or oxidised macromolecules (epoxidised C08F 291/10)	299/0421	. . . . {Polymerisation initiated by wave energy or particle radiation}
291/185	. . {The monomer(s) not being present during the irradiation or the oxidation of the macromolecule}	299/0428	. . . . . {by ultra-violet or visible light}
292/00	Macromolecular compounds obtained by polymerising monomers on to inorganic materials	299/0435	. . . . . {with sensitising agents}
Block polymers		299/0442	. . . {Catalysts}
293/00	Macromolecular compounds obtained by polymerisation on to a macromolecule having groups capable of inducing the formation of new polymer chains bound exclusively at one or both ends of the starting macromolecule (on to polymers modified by introduction of unsaturated end groups C08F 290/02)	299/045	. . . . {Peroxy-compounds}
293/005	. {using free radical "living" or "controlled" polymerisation, e.g. using a complexing agent}	299/0457	. . . . {Nitrogen containing compounds}
295/00	Macromolecular compounds obtained by polymerisation using successively different catalyst types without deactivating the intermediate polymer	299/0464	. . . . {Metals or metal containing compounds}
		299/0471	. . . . {Other compounds}
		299/0478	. . . {Copolymers from unsaturated polyesters and low molecular monomers characterised by the monomers used}
		299/0485	. . . {from polyesters with side or terminal unsaturations}
		299/0492	. . . . {the unsaturation being in acrylic or methacrylic groups}
		299/06	. . from polyurethanes
		299/065	. . . {from polyurethanes with side or terminal unsaturations}

299/08	<ul style="list-style-type: none"> from polysiloxanes 	2500/17	<ul style="list-style-type: none"> Viscosity
301/00	Macromolecular compounds not provided for in groups C08F 10/00 - C08F 299/00	2500/18	<ul style="list-style-type: none"> Bulk density
<hr/>			
2400/00	Characteristics for processes of polymerization	2500/19	<ul style="list-style-type: none"> Shear ratio or shear ratio index
2400/02	<ul style="list-style-type: none"> Control or adjustment of polymerization parameters 	2500/20	<ul style="list-style-type: none"> Activation energy or enthalpy
2410/00	Catalyst preparation (not used)	2500/21	<ul style="list-style-type: none"> Rubbery or elastomeric properties
2410/01	<ul style="list-style-type: none"> Additive used together with the catalyst, excluding compounds containing Al or B 	2500/22	<ul style="list-style-type: none"> Sticky polymer
2410/02	<ul style="list-style-type: none"> Anti-static agent incorporated into the catalyst 	2500/23	<ul style="list-style-type: none"> Waxy properties
2410/03	<ul style="list-style-type: none"> Multinuclear procatalyst, i.e. containing two or more metals, being different or not 	2500/24	<ul style="list-style-type: none"> Polymer with special particle form or size
2410/04	<ul style="list-style-type: none"> Dual catalyst, i.e. use of two different catalysts, where none of the catalysts is a metallocene 	2500/25	<ul style="list-style-type: none"> Cycloolefine
2410/05	<ul style="list-style-type: none"> Transitioning, i.e. transition from one catalyst to another with use of a deactivating agent 	2500/26	<ul style="list-style-type: none"> Use as polymer for film forming
2420/00	Metallocene catalysts (not used)	2800/00	Copolymer characterised by the proportions of the comonomers expressed (not used)
2420/01	<ul style="list-style-type: none"> Cp or analog bridged to a non-Cp X neutral donor 	2800/10	<ul style="list-style-type: none"> as molar percentages
2420/02	<ul style="list-style-type: none"> Cp or analog bridged to a non-Cp X anionic donor 	2800/20	<ul style="list-style-type: none"> as weight or mass percentages
2420/03	<ul style="list-style-type: none"> Cp or analog not bridged to a non-Cp X ancillary neutral donor 	2810/00	Chemical modification of a polymer (not used)
2420/04	<ul style="list-style-type: none"> Cp or analog not bridged to a non-Cp X ancillary anionic donor 	2810/10	<ul style="list-style-type: none"> including a reactive processing step which leads, inter alia, to morphological and/or rheological modifications, e.g. visbreaking
2420/05	<ul style="list-style-type: none"> Cp or analog where at least one of the carbon atom of the Cp ring is replaced by a heteroatom 	2810/20	<ul style="list-style-type: none"> leading to a crosslinking, either explicitly or inherently
2420/06	<ul style="list-style-type: none"> Cp or analog where at least one of the carbon atoms of the ring is replaced by a heteroatom 	2810/30	<ul style="list-style-type: none"> leading to the formation or introduction of aliphatic or alicyclic unsaturated groups
2438/00	Living radical polymerisation	2810/40	<ul style="list-style-type: none"> taking place solely at one end or both ends of the polymer backbone, i.e. not in the side or lateral chains
2438/01	<ul style="list-style-type: none"> Atom Transfer Radical Polymerization [ATRP] or reverse ATRP 	2810/50	<ul style="list-style-type: none"> wherein the polymer is a copolymer and the modification is taking place only on one or more of the monomers present in minority
2438/02	<ul style="list-style-type: none"> Stable Free Radical Polymerisation [SFRP]; Nitroxide Mediated Polymerisation [NMP] for, e.g. using 2,2,6,6-tetramethylpiperidine-1-oxyl [TEMPO] 		
2438/03	<ul style="list-style-type: none"> Use of a di- or tri-thiocarbonylthio compound, e.g. di- or tri-thioester, di- or tri-thiocarbamate, or a xanthate as chain transfer agent, e.g. Reversible Addition Fragmentation chain Transfer [RAFT] or Macromolecular Design via Interchange of Xanthates [MADIX] 		
2500/00	Characteristics or properties of obtained polymers; Use thereof (not used)		
2500/01	<ul style="list-style-type: none"> High molecular weight 		
2500/02	<ul style="list-style-type: none"> Low molecular weight 		
2500/03	<ul style="list-style-type: none"> Narrow molecular weight distribution 		
2500/04	<ul style="list-style-type: none"> Broad molecular weight distribution 		
2500/05	<ul style="list-style-type: none"> Bimodal or multimodal molecular weight distribution 		
2500/06	<ul style="list-style-type: none"> Narrow composition distribution 		
2500/07	<ul style="list-style-type: none"> High density 		
2500/08	<ul style="list-style-type: none"> Low density 		
2500/09	<ul style="list-style-type: none"> Long chain branches 		
2500/10	<ul style="list-style-type: none"> Short chain branches 		
2500/11	<ul style="list-style-type: none"> Melt tension or melt strength 		
2500/12	<ul style="list-style-type: none"> Melt flow index or melt flow ratio 		
2500/13	<ul style="list-style-type: none"> Environmental stress cracking resistance 		
2500/14	<ul style="list-style-type: none"> Die swell or die swell ratio or swell ratio 		
2500/15	<ul style="list-style-type: none"> Isotactic 		
2500/16	<ul style="list-style-type: none"> Syndiotactic 		