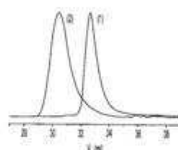
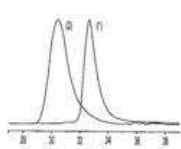
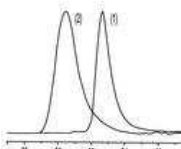
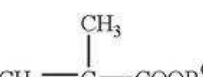
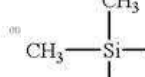
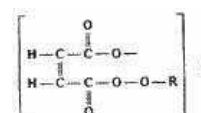
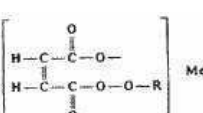
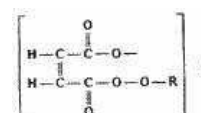
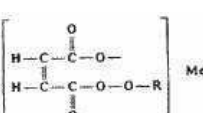
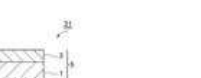


#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
1.	Initiator system comprising a silyl initiator for the anionic (co)polymerisation of (meth)acrylic monomers and process using it	CA2232576	1997-04-10	ATOFINA* ELF ATOCHEM	1998-10-10	1998-10-10
An initiator system for anionic (co)polymerisation of (meth)acrylic monomers comprises at least one alkali metal alcoholate as ligand; and one or more mono- or bifunctional initiators such as those of formula AR¹-Si(R²)(R³)-R⁴Uq-M (I), where R¹-R³ = 1-8C alkyl; R⁴ = 1-8C alkylene; M = alkali metal or alkaline earth metal and q = 1 or 2; and formula M'-R⁷-Si(R⁵)(R⁶)-R⁸-M' (II), where R⁵, R⁶ = 1-8C alkyl; R⁷, R⁸ = 1-8C alkylene; and M' = alkali metal. Also claimed is a method for (co)polymerisation using the system. Preferably alcoholates are selected from those of formula ROM' (III), where R = R⁹(OR¹⁰)_p; R⁹ = 1-8C alkyl, aryl, alkylaryl or arylalkyl; R¹⁰ = 1-4C alkylene; and p = 0-3. The ratio compound (II):compound (I) = preferably 2-10.        						
2.	Method for reducing the content of monomers in the expandable beads of thermoplastic material	IT7949329	1978-06-08	KEMANOBEI KEMANORD* KEMANORD STOCKHOLM	1979-06-06	1979-06-06
The residual monomer content of expandable thermoplastic beads containing a volatile blowing agent, which are produced from ethylenically unsaturated monomers by a conventional aqueous suspension polymerization process in the presence of the blowing agent, is reduced by heating a slurry of the beads in a vessel completely filled with a liquid medium and in the presence of a water soluble polymerization initiator at a temperature exceeding 65 DEG C. The liquid medium preferably includes the aqueous polymerization medium used so that the process also removes monomer residue therefrom. Expansion of the beads during the heat treatment is inhibited by the pressure of the liquid medium, which has no interface with any gaseous phase. The process is particularly useful for treating expandable beads formed from the copolymerization of (meth)acrylonitrile with monomers such as styrene or vinylidene chloride. (From GB2025429 A)   						
3.	Process and composition for polymerizing and curing methyl methacrylate monomer-polymer syrups in the presence of metal salts of hemi-peresters of maleic acid	DE2642660	1976-09-20	DU PONT DE NEMOURS*	1977-03-24	1977-03-24
In the use of certain meal salts of the hemi-perester of maleic acid as catalysts for the polymerization and curing of ethylenically unsaturated monomers and of methyl methacrylate-containing syrups the addition of an activator such as sodium bisulfite provides a substantial reduction in the curing time. The process is relatively insensitive to the amount of filler used. The salts of maleic hemi-peresters, in combination with the activators, are also useful for polymerizing ethylenically unsaturated monomers.  						
4.	Process for producing peroxide-vulcanizable, fluorine-containing elastomer	DE3710818	1987-03-12	NIPPON MEKTRON*	1987-10-08	1987-10-08
A peroxide-vulcanizable, fluorine-containing elastomer having distinguished processability, vulcanization characteristics and physical properties of vulcanized products can be obtained by polymerization of fluorine-containing olefins having 2 to 8 carbon atoms in the presence of an iodine and bromine-containing compound represented by the general formula RBr.sub.n Im, where R represents fluorohydrocarbon group, a chlorofluorohydrocarbon group, a chlorohydrocarbon group or a hydrocarbon group, and n and m are integers of 1 and 2.  						
5.	Photocurable resin composition, method for manufacturing cured film using same, and laminate containing said cured film	WO2016171187	2016-04-20	SUMITOMO CHEMICAL	2016-10-27	2016-10-27
Provided is a photocurable resin composition comprising: a multifunctional (meth)acrylate having two or more functions; a polyrotaxane; silica particles; and a photopolymerization initiator. The photocurable resin composition fulfills all of the relationships in formulas (1) through (4), where X represents the multifunctional (meth)acrylate content in parts by mass, Y represents the polyrotaxane content in parts by mass, and Z represents the silica particle content in parts by mass. Formula (1): X + Y + Z = 100, formula (2): X ≥ 50, formula (3): 3 ≤ Y ≤ 20, formula (4): 25 ≤ Z ≤ 40     						

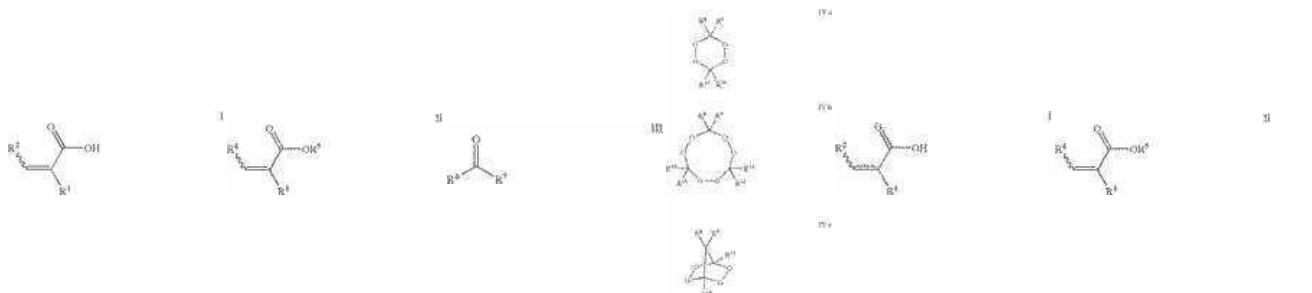
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1965-09-17 1965-09-17

1962-11-23 1962-11-23

(From GB972246 A)

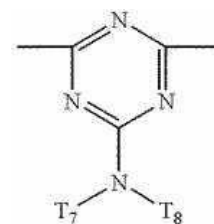
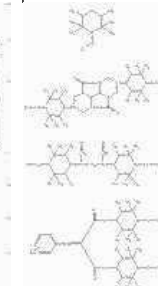
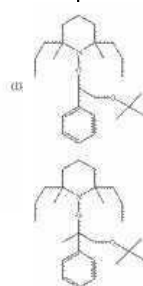
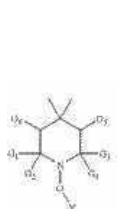
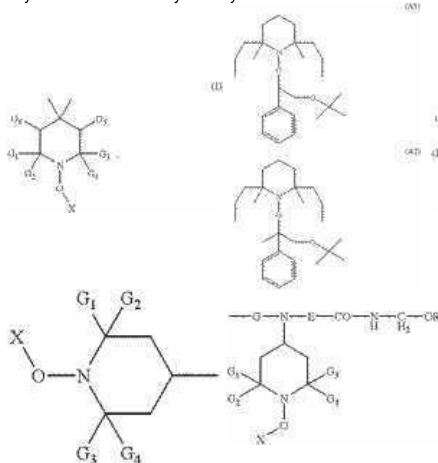
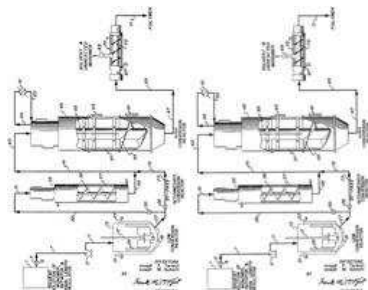
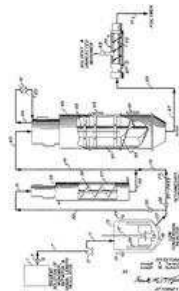
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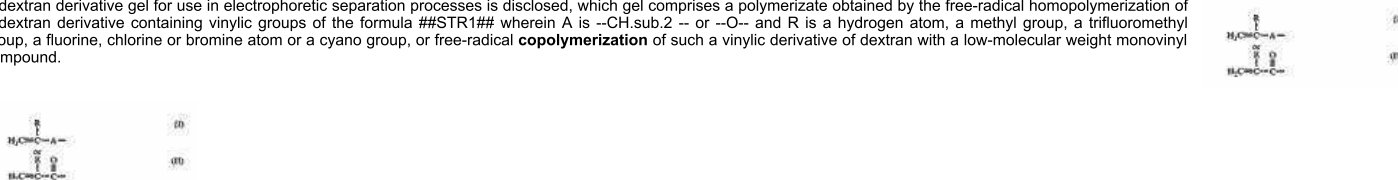
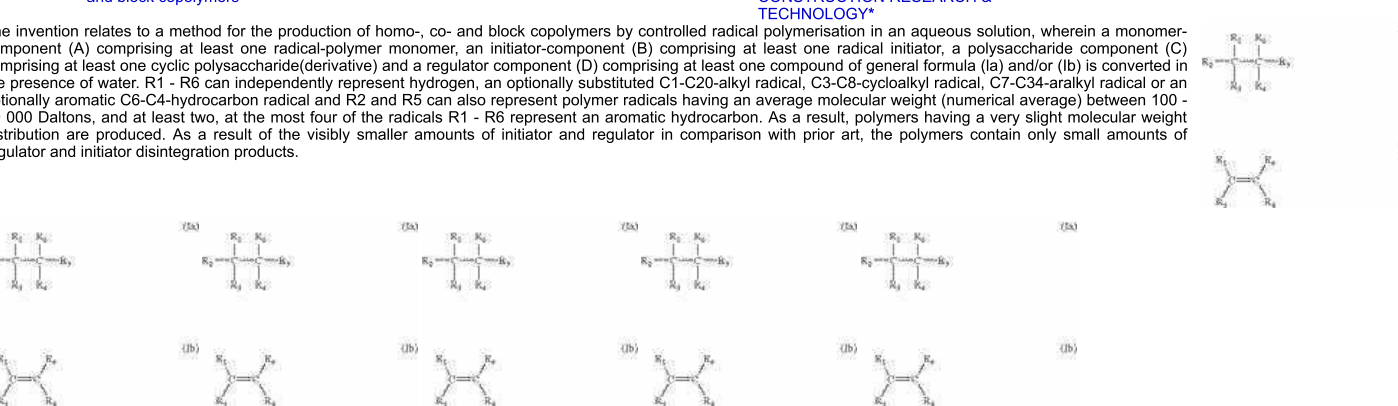
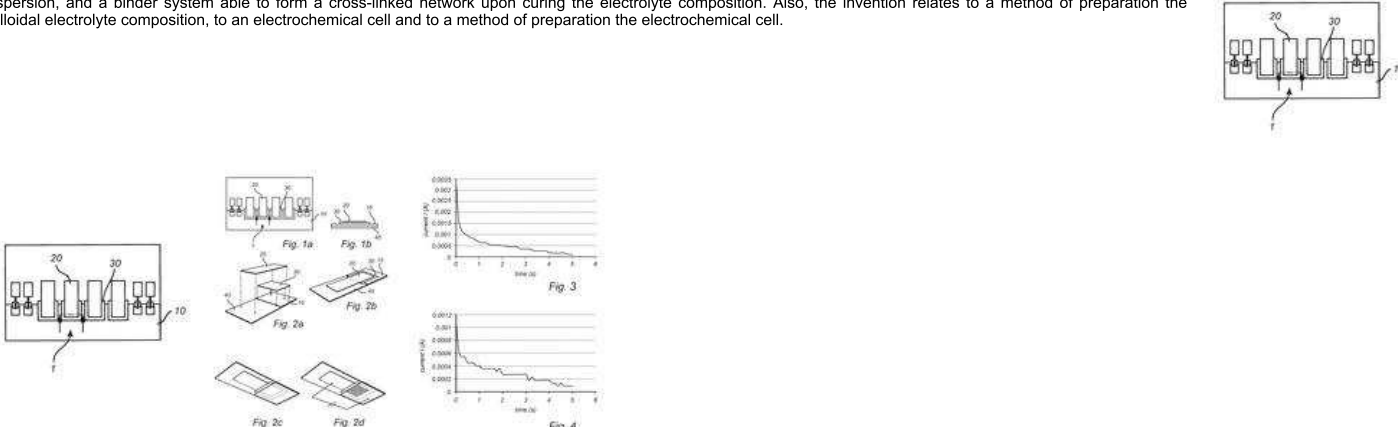
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1986-05-14 1986-05-14

年份	人口老龄化率 (%)	人口素质指数	人口素质指数与人口老龄化率的相关系数
1990	10.1	0.45	0.98
1991	10.2	0.46	0.98
1992	10.3	0.47	0.98
1993	10.4	0.48	0.98
1994	10.5	0.49	0.98
1995	10.6	0.50	0.98
1996	10.7	0.51	0.98
1997	10.8	0.52	0.98
1998	10.9	0.53	0.98
1999	11.0	0.54	0.98

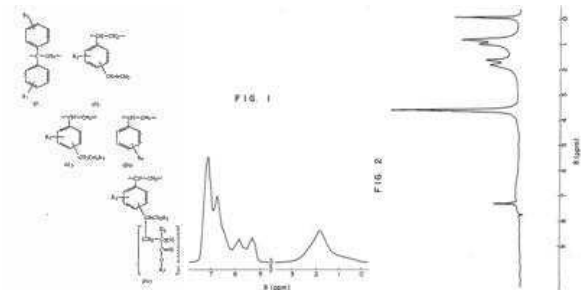
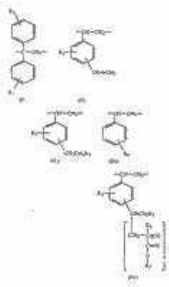
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15.	Vinyl group containing dextran derivative gel for use in electrophoretic separation processes	SE7514093	1975-12-12	PHARMACIA FINE CHEMICAL*	1977-06-13 1977-06-13
A dextran derivative gel for use in electrophoretic separation processes is disclosed, which gel comprises a polymerize obtained by the free-radical homopolymerization of a dextran derivative containing vinyl groups of the formula ##STR1## wherein A is --CH.sub.2-- or --O-- and R is a hydrogen atom, a methyl group, a trifluoromethyl group, a fluorine, chlorine or bromine atom or a cyano group, or free-radical copolymerization of such a vinyl derivative of dextran with a low-molecular weight monovinyl compound.					
					
16.	Method for the production of homo-, co- and block copolymers----	WO2004014961	2002-08-03	BASF CONSTRUCTION POLYMERS CONSTRUCTION RESEARCH & TECHNOLOGY*	2004-02-19 2004-02-19
The invention relates to a method for the production of homo-, co- and block copolymers by controlled radical polymerisation in an aqueous solution, wherein a monomer-component (A) comprising at least one radical-polymer monomer, an initiator-component (B) comprising at least one radical initiator, a polysaccharide component (C) comprising at least one cyclic polysaccharide(derivative) and a regulator component (D) comprising at least one compound of general formula (Ia) and/or (Ib) is converted in the presence of water. R1 - R6 can independently represent hydrogen, an optionally substituted C1-C20-alkyl radical, C3-C8-cycloalkyl radical, C7-C34-aralkyl radical or an optionally aromatic C6-C4-hydrocarbon radical and R2 and R5 can also represent polymer radicals having an average molecular weight (numerical average) between 100 - 50 000 Daltons, and at least two, at the most four of the radicals R1 - R6 represent an aromatic hydrocarbon. As a result, polymers having a very slight molecular weight distribution are produced. As a result of the visibly smaller amounts of initiator and regulator in comparison with prior art, the polymers contain only small amounts of regulator and initiator disintegration products.					
					
17.	Polyurethane polymers from lactone polyesters	IT570651	1957-04-04	UNION CARBIDE* UNION CARBIDE & CARBON	1959-03-09
A polyester is made by heating at 50 DEG -300 DEG C. a lactone having at least six carbon atoms in the ring with an initiator which is an organic compound containing at least one alcoholic group or a primary or secondary amino group attached directly to carbon or with a polycarboxylic acid, a hydroxycarboxylic acid or an aminocarboxylic acid. The lactone preferably has the formula: <FORM:0859642/IV(a)/1> where n is at least four, at least n + 2 Rs are hydrogen and the remaining Rs are hydrogen, alkyl, cycloalkyl, alkoxy or single ring aromatic hydrocarbon radicals. A very large number of initiators are specified, including aliphatic, cycloaliphatic, aromatic and heterocyclic mono-, di- and higher poly-hydric alcohols; aliphatic, cycloaliphatic, aromatic and heterocyclic mono-, di- and higher poly-amines in which the amino groups are primary or secondary; polyols which are polyoxyalkylated derivatives of di- or higher poly-functional compounds having their functional groups in the form of primary or secondary hydroxyl, phenolic hydroxyl, primary or secondary amino, amido, hydrazino, guanido, ureido, mercapto, sulphino, sulphonamide or carboxyl groups; polymeric cyclic oxides with hydroxyend groups; oxyalkylated phosphoric acid; di- and higher poly-functional amino alcohols, carbohydrates and alkyl glycosides; aliphaticcycloaliphatic and aromatic di- and higher polycarboxylic acids; aliphatic and aromatic hydroxycarboxylic and aminocarboxylic acids; a mixture of a dicarboxylic acids with a molar excess of a glycol, a diamine or an amine alcohol; and vinyl polymers containing hydroxyl or amino groups, e.g. saponified ethylene/vinyl acetate copolymers, polyvinyl alcohol, and copolymers of ethylene with amino styrenes, 3-butene-1, 2-diol, allyl alcohol, methallyl alcohol, 3-phenyl-3-butene-1-ol and diethylene glycol monovinyl ether. Catalysts for the reaction are certain metals; certain metallic oxides, carbonates, alkoxides, silicates, borates, acetates and arsenates; and certain organic titanium compounds. The polyesters, preferably after esterification of their terminal hydroxyl or carboxyl groups, may be used as plasticizers, e.g. for polyvinyl chloride, vinyl chloride, vinyl acetate copolymers, polyvinyl butyral, copolymers of acrylonitrile with butadiene, G.R.S. rubber and natural rubber: thus an acetylated lactone polyester may be milled with a 96 : 4 vinyl chloride-vinyl acetate copolymer together with dibutyl tin maleate as a stabilizer and the mixture moulded into sheets. The polyester containing terminal hydroxy or carboxyl groups may be reacted with polyisocyanates to form polyurethane rubbers or foams. In Examples (1)-(27) and (33)-(34) epsilon-caprolactone, certain methyl substituted epsiloncaprolactones and various mixtures thereof were polymerized in the presence of various initiators and catalysts; (28)-(32) polyesters were made by reacting together epsilon-caprolactane or certain methyl-epsilon-caprolactones, ethylene glycol and (28) adipic acid, (29) a mixture of glutaric acid and glutaric anhydride; (30) adipic acid; (31) phthalic anhydride (32) isophthalic acid. Specifications 859,639 859,640, 859,641, 859,643, 859,644 and 859,645 are referred to. (From GB859642 A)					
18.	Colloid electrolyte composition	WO2012136781	2012-04-05	ACRE SWEDISH ESSEY URBAY ACREO ACREO SWEDISH ICT RISE ACREO*	2012-10-11 2012-10-11
The invention relates to a colloidal electrolyte composition comprising a polyelectrolyte selected from one or more cationic polymers, a particulate phase forming a colloidal dispersion, and a binder system able to form a cross-linked network upon curing the electrolyte composition. Also, the invention relates to a method of preparation the colloidal electrolyte composition, to an electrochemical cell and to a method of preparation the electrochemical cell.					
					
19.	Method of polymerizing vinyl chloride with olefin-acrylic ester copolymers and composition thereof	GB1436163	1973-04-30	HOOKE CHEMICAL HOOKE CHEMICALS & PLASTICS OCCIDENTAL CHEMICAL*	1976-05-19 1976-05-19
An improved polyvinyl chloride or polyvinyl chloride copolymer containing up to 50 percent of a monomer can be obtained by graft polymerizing in contact with an olefin-acrylic ester copolymer in a process of bulk polymerization comprising single stage or two-stage polymerization wherein high speed agitation is used during the first stage and low speed agitation is used in the second stage. By polymerizing in the presence of an olefin-acrylic ester copolymer, reduced particle size, easy processability, lower melt viscosity and improved impact strength can be obtained in the resin product. Two stage bulk polymerization in contact with small amounts of the olefin-acrylic ester copolymer is effective in providing reduced particle size. Larger amounts of olefin-acrylic ester copolymer can be used in either a two-stage or single stage polymerization process where high impact strength, reduced melt viscosity, improved clarity and easy processability properties are desired in the final product.					

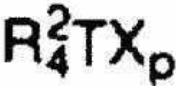
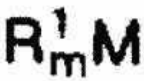
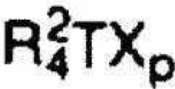
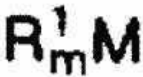
20.	Graft copolymers, process for the preparation thereof and ionizing radiation sensitive resist using such copolymers	GB8329169	1982-12-01	ASAHI CHEMICAL INDUSTRY* ASAHI KASEI	1983-12-07 1983-12-07
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Solvent-soluble copolymers having a number average molecular weight of about 1,000 to about 1,000,000 and comprising recurring units of the following formulae (I) and (II) (case A) or recurring unit of the following formulae (I), (II) and (III) (case B) or solvent-soluble graft copolymers having a number average molecular weight of about 1,500 to about 2,000,000 and comprising recurring units of the following formulae (I), (II) and/or (II'), and (IV) (case C) or recurring units of the following formulae (I), (II) and/or (II'), (III) and (IV) (case D), said recurring units being combined to form the main alkylene chain, wherein in the cases A and B the amount of the formula (I) unit is about 3 to 60 mol % of the total amount of the whole units, and in the cases C and D the amount of the formula (I) unit is about 5 to 60 mol % of the total amount of the units of formulae (I), (II) and/or (II'), and (IV), and in the cases B and D the amount of the formula (III) unit is about 1 to 40 mol % of the total amount of the whole units, and in the cases C and D the amount of the side chains enclosed in brackets of the formula (IV) unit is at least about 10% by weight of the amount of the main chain, exclusive of the bracketed grafted side chains, of the graft copolymer: ##STR1## wherein each of R.sub.1, R.sub.2 and R.sub.3 represents independently hydrogen, a straight or branched chain alkyl group having 1 to 4 carbon atoms or a halogen; R.sub.4 represents hydrogen or a straight or branched chain alkyl group having 1 to 10 carbon atoms; R.sub.5 represents an alkyl group having 1 to 6 carbon atoms, a phenyl group or a benzyl group; R.sub.6 represents hydrogen or a methyl group; R.sub.7 represents a straight or branched chain alkyl group having 1 to 10 carbon atoms, an aryl group, an aralkyl group or an aminoalkyl group; and n is an integer of 1 to 50. A resist having an excellent sensitivity to ionizing radiations and a high resolution, and also having a high dry etching resistance is provided by using these copolymers and graft copolymers.



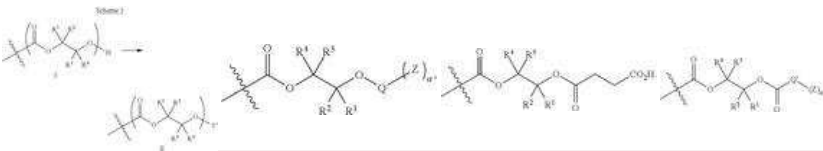
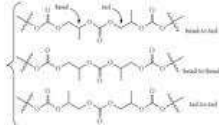
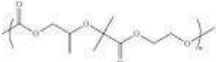
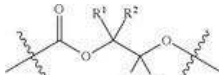
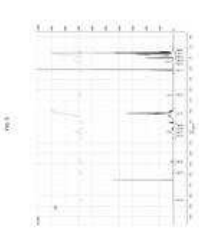
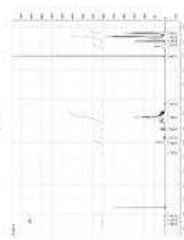
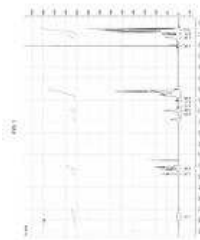
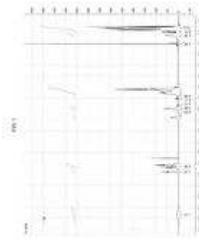
21.	Polymerisation catalysts and process for the homo- or co-polymerisation of alpha-olefins.	EP0026986	1980-09-10	ICI - IMPERIAL CHEMICAL INDUSTRIES*	1981-04-15 1981-04-15
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A metal composition suitable as an initiator for olefin polymerisation which is the product of reacting a particulate support material, preferably having a reactive surface which is free from water, with firstly an organometallic compound of the general formula R₁-M and secondly a transition metal organometallic compound of the general formula R₂-TX_p wherein M is a metal of Groups IA, IIA or IIB of the Periodic Table, T is a transition metal of Group IVA of the Periodic Table, R₁ and R₂ are hydrocarbyl or substituted hydrocarbyl groups, X, when present, is a singly charged anionic ligand or a monodentate ligand, m is 1 or 2 depending on whether the metal is in Group IA, or in Group IIA or IIB, and p is 0, 1 or 2.



22.	Polymer compositions and methods	WO2012154849	2012-05-09	NOVOMAR NOVOMER SAUDI ARAMCO*	2012-11-15 2012-11-15
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The present invention encompasses polymer compositions comprising aliphatic polycarbonate chains containing functional groups that increase the polymer's ability to wet or adhere to inorganic materials. In certain embodiments, chain ends of the aliphatic polycarbonates are modified to introduce silicon-containing functional groups, boron-containing functional groups, phosphorous-containing functional groups, sulfonic acid groups or carboxylic acid groups.

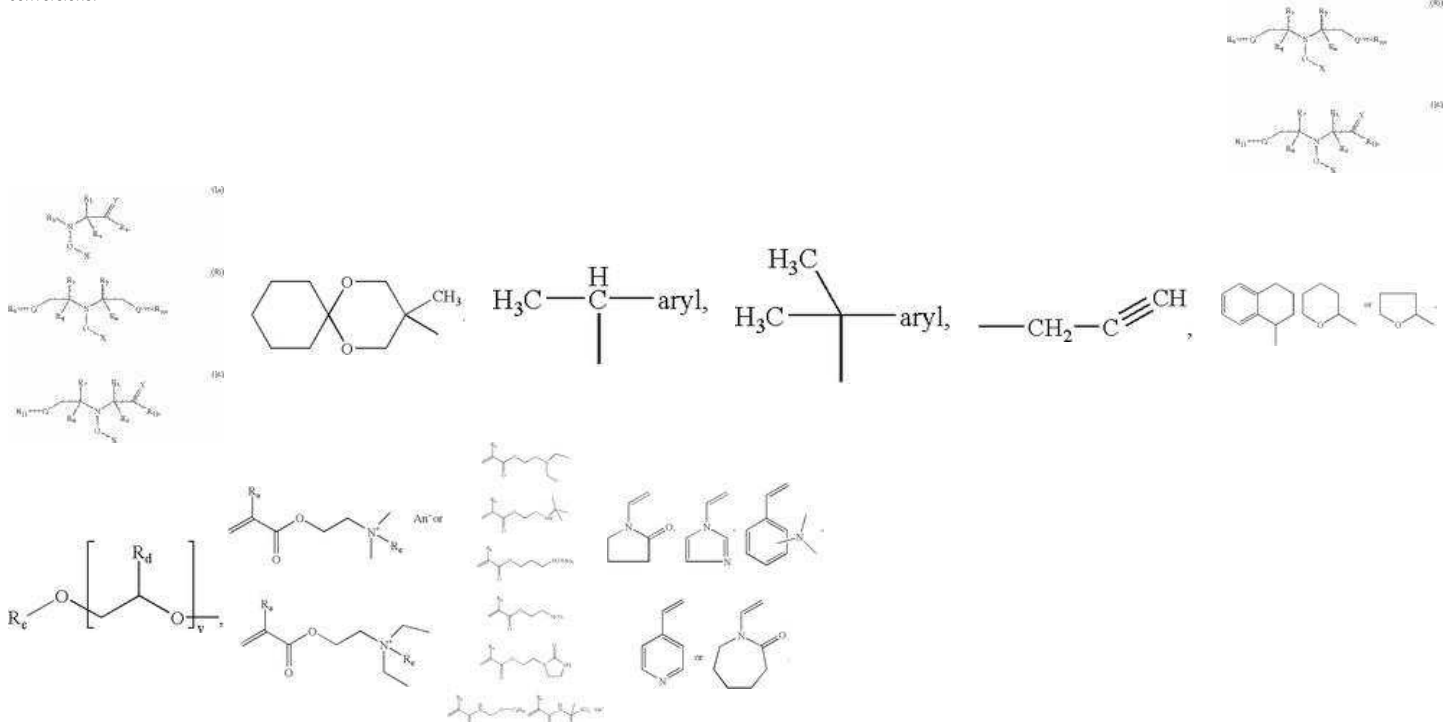


A **process** for preparing block copolymers by anionic polymerization of a plurality of polymerizable vinylidene monomers comprises (1) polymerizing a first monovinylidene monomer under the influence of an anionic initiator in the substantial absence of water and other chain terminating agent, the monomer having a lower e value (a parameter which depends on the degree of polarity of the monomer double bond) than the second monomer to be added. (2) adding to the linear polymer thus formed a second monovinylidene monomer having an arithmetically positive e value greater than that of the first monomer, (3) continuing the polymerization of the second monomer in the presence of the linear polymer and, if desired, after polymerization of the second monomer, continuing polymerization in successive steps with further monomers, each successive monomer having an e value greater than the last and greater than that of the second monomer. Monomers specified are esters of acrylic, methacrylic and cyanoacrylic acid (listed), itaconic esters, acrylonitrile, methacrylonitrile, phenylacrylonitrile, vinylidene cyanide, styrene and its ring and alpha-substitution products (listed), alkyl vinyl and isopropenyl ketones, dimethyl and diethyl methylenemalonates, vinyl pyridines, N-vinyl and 1-vinyl pyrrolidones, butadiene, isoprene, piperylene, chlorobutadiene, nitroethylene and nitropropene. Anionic initiators specified are alkali metals and their salts with weak acids, e.g. methanol, ethanol, indene, xanthene, butane, benzene, stilbene, tolan, phenylfluorene, fluorene, phenylxanthene, di- and tri-phenyl methane, diphenyl-a-naphthylmethane, cumene, naphthalene, ketones and ammonia, and also Grignard reagents. The polymerization is preferably carried out in an inert solvent, e.g. an aromatic hydrocarbon or an ether. The examples describe the preparation of the following block copolymers: (1) poly-a methylstyrene-polymethacrylate; (2) polymethyl methacrylate-poly-2-ethylhexyl acrylate; (3) polystyrene-polymethyl methacrylate; (4) polybutyl methacrylate-polyacrylonitrile; (5) polymethyl methacrylate-polybutyl acrylate; (6) poly-a-methylstyrene-polyethyl acrylate; (7) poly-co (octyl and decyl methacrylate)-polymethacrylonitrile; and (8) polyethyl acrylate-polyacrylonitrile.

(From GB856581 A)

24. Open chain alkoxyamine compounds and their use as polymerization regulators WO200007981 1999-07-27 CIBA SPECIALTY CHEMICALS* 2000-02-17 2000-02-17

The invention relates to a compound of formula (Ia), (Ib) or (Ic). The open chain alkoxyamine compounds are useful for the polymerization of ethylenically unsaturated monomers. The compounds of the present invention provide polymeric resin products having low polydispersity. The polymerization **process** proceeds with enhanced monomer to polymer conversion efficiency. In particular, this invention relates to stable free radical-mediated polymerization processes which provide homopolymers, random copolymers, block copolymers, multiblock copolymers, graft copolymers and the like, at enhanced rates of polymerization and enhanced monomer to polymer conversions.



25. Hydrophosphorylation of phosphonic acid derivatives to yield flame retardants WO2010069421 2008-12-19 CLARIANT* 2010-06-24 2010-06-24

The invention relates to addition compounds of a) alkylphosphonous acid derivatives of formula A-P(=O)(OX)-H (I), in which A represents C2-C18-alkyl, C2-C18-alkylene, C6-C18-arylalkyl, C6-C18-arylalkyl, optionally substituted, and X represents H, C1-C18-alkyl, C6-C18-aryl, C6-C18-arylalkyl, C6-C18-alkylaryl, optionally substituted C2-C18-alkylene, Mg, Ca, Al, Sb, Sn, Ge, Ti, Fe, Zr, Zn, Ce, Bi, Sr, Mn, Cu, Ni, Li, Na, K, H and/or a protonated nitrogenous base, and b) diester-forming olefins of formula (II), in which R2, R4 are identical or different from each other and represent CO2H, CO2R5, R6-CO2H, R6-CO2R5, and R1, R3 are identical or different from each other and represent H, R5; or R1, R4 are identical or different from each other and represent CO2H, CO2R5, R6-CO2H, R6-CO2R5, and R2, R3 are identical or different from each other and represent H, R5; or R2, R4 are identical or different from each other and represent CO2H, CN, CO2R5, R6-CO2H, R6-CO2R5, and R3, R4 are identical or different from each other and represent H, R5; or R1, R2 are identical or different from each other and represent -CR2 3-CO-O-CO-, -CR2 3-CO-NR1-CO-, -CR2 3-CO-O-CO-CR2 3-, -CR2 3-CO-NR1-CO-CR2 3-, and R3, R4 are identical or different from each other and represent H, R5; or R2 and R4 each represent -CO-CR5=CR5-CO-, and R1, R3 are identical or different from each other and represent H, R5; R5 = C1C18-alkyl, C6-C18-aryl, C6-C18-arylalkyl, C6-C18-alkylaryl; R6 = C2-C18-alkylene, C6-C18-arylene, C6-C18-alkarylene and/or C6-C18-aralkylene. Methods for the production of said addition compounds and the use thereof are also disclosed.

