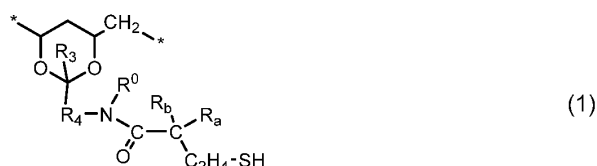


What is claimed is:

1. A lens-forming composition, comprising:
 - (a) at least one lens-forming material,
 - (b) at least one photoinitiator (preferably selected from the group consisting of benzoin methyl ether, diethoxyacetophenone, a benzoylphosphine oxide, 1-hydroxycyclohexyl phenyl ketone, a Germanium-based Norrish Type I photoinitiator, an acylphosphinate salt, and combinations thereof, more preferably bLithium phenyl (2,4,6-trimethylbenzoyl) phosphinate),
 - (c) at least one thiol-containing compound or polymer in an amount (preferably in an amount of from about 0.1% to about 1% by weight, preferably from about 0.1% to about 2% by weight) for reducing the curing time of the lens-forming composition (preferably by at least 20%, more preferably by at least 30%, even more preferably by at least 40%, most preferably by at least 50%), with a first light having a wavelength from about 380 to about 460 nm, compared to a control composition which differs from the lens-forming composition only in that the control composition is free of any chain-transfer agent while the lens-forming composition comprises said at least one thiol-containing compound or polymer,
 - (d) at least one metal ion scavenger (preferably in an amount of from about 10 ppm to about 10,000 ppm),
 - (e) at least one free radical scavenger (preferably in an amount of from about 10 ppm to about 2000 ppm), and
 - (f) optionally (but preferably) at least one polymerizable UV-absorbing component having at least one UV-absorbing moiety which absorbs UV radiation having a wavelength of from 200 nm to 400 nm, wherein the lens-forming composition has a pH of from about 2.5 to about 5 and a shelf life of at least 3 days.
2. The lens-forming composition of claim 1, wherein said at least one thiol-containing compound or polymer is selected from the group consisting of 2-mercaptoethylamine, 2-mercaptopropylamine, 3-mercaptopropylamine, 2-mercaptobutylamine, 3-mercaptobutylamine, 4-mercaptobutylamine, 5-mercaptopentylamine, 6-mercaptohexylamine, 1-amino-2-methyl-2-propanethiol hydrochloride, N-methylaminoethanethiol, N-ethylaminoethanethiol, N-methylaminopropanethiol, N-ethylaminopropanethiol, N-methylaminobutanethiol, N-ethylaminobutanethiol, 2-(butylamino)ethanethiol, thioglycolic acid, ammonium thioglycolate, thiolactic acid, mercaptosuccinic acid, meso-2,3-dimercaptosuccinic acid, 2-mercaptoisobutyric acid, 2-methyl-3-sulfanylpropanoic acid, 4-mercaptobutyric acid, 6-mercaptohexanoic acid, 8-mercaptooctanoic acid, 2-mercaptoethanol, 1-mercapto-2-propanol, 2,3-

dimercapto-1-propanol, 1-thioglycerol, 3-mercapto-1-propanol, 4-mercapto-1-butanol, 3-mercapto-1-hexanol, 4-mercapto-4-methylpentan-2-ol, 6-mercapto-1-hexanol, 8-mercapto-1-octanol, 9-mercapto-1-nonanol, 2-mercapto-pyrimidine-4,6-diol; cysteine; 4-amino-5-mercapto-pentanoic acid, 2-mercapto-4-amino-6-hydroxypyrimidine, 2-mercapto-succinic acid, 3-mercapto-2-(methylamino)propanoic acid, 2-mercapto-4,5-dihydro-1h-imidazole-4,5-diol, 3-mercaptotyramine, mercaptopropanediol, 2-mercaptomethylglutaric acid, 3-mercapto-DL-valine hydrochloride, 2,2,2-trifluoroethanethiol, ethanethiol, 1,2-ethanedithiol, methyl thioglycolate, 2-methoxyethanethiol, 2-propanethiol, 1,3-propanedithiol, N-acetylcysteamine, cysteamine, L-cysteine-methyl ester-HCl, 2-mercaptoethyl ether, 1-butanethiol, 2-methyl-1-propanethiol, 2-methyl-2-propanethiol, 1,4-butanedithiol, 2,2'-thiodiethanethiol, 4-cyano-1-butanethiol, 3-sulfanyl-2-pentanone, cyclopentanethiol, 2-(2-methoxyethoxy)ethanethiol, 2-methyl-1-butanethiol, 3-methyl-1-butanethiol, 1,5-pentanedithiol, 4-methyl-4-mercaptopentan-2-one, 3-mercapto-3-methyl-1-butyl-1-formate, 3-mercaptobutyl acetate, cyclohexanethiol, 1,6-hexanedithiol, 2-ethylhexanethiol, 1-nonanethiol, trimethylolpropane tris(3-mercaptopropionate), a poly(ethylene glycol) having one sole terminal thiol group, a poly(ethylene glycol) having two terminal thiol groups, a multi-arm poly(ethylene glycol) having one terminal thiol group at each arm (4-arm PEG having four terminal thiol groups, 8-arm PEG having 8 terminal thiol groups, etc.), a polyvinyl alcohol having pendant thiol groups, and combinations thereof.

3. The lens-forming composition of claim 1 or 2, wherein said at least one thiol-containing compound or polymer comprises a thiol-containing polyvinyl alcohol which comprises at least about 50% by mole of repeating units of vinyl alcohol; and repeating units of formula (1)



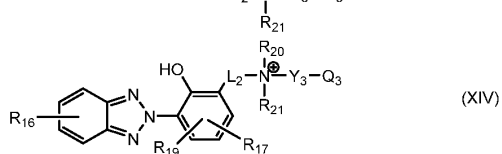
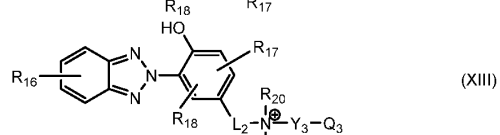
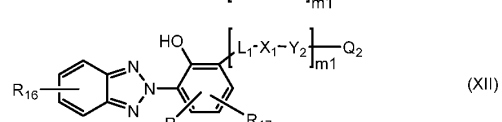
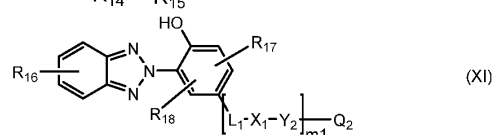
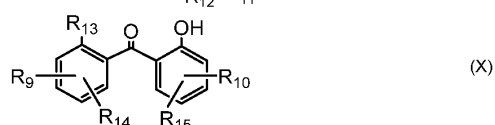
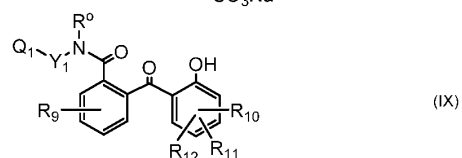
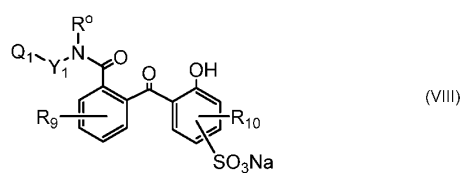
in which: R^0 and R_3 independent of each other are hydrogen or a $\text{C}_1\text{--C}_6$ alkyl group (preferably hydrogen or methyl, more preferably hydrogen), R_4 is a $\text{C}_2\text{--C}_6$ alkylene divalent radical (preferably $\text{C}_3\text{--C}_4$ alkylene divalent radical, more preferably propylene or butylene divalent radical, even more preferably propylene divalent radical), R_a is hydrogen or methyl, and R_b is hydrogen, $\text{C}_1\text{--C}_3$ alkyl, acetyl, or $\text{C}_2\text{--C}_4$ alkanoylamino which optionally has a carboxyl group (preferably R_b is acetylamino, propionylamino or butyrylamino, more preferably R_b is acetylamino or propionylamino, even more

preferably R_b is acetylamino).

4. The lens-forming composition of any one of claims 1 to 3, wherein said at least one metal ion scavenger is selected from the group consisting of ethylenediaminetetraacetic acid (EDTA), diethylenetriamine penta(methylene phosphonic acid and salts thereof, ethylenediamine tetra(methylene phosphonic acid) and salts thereof, hexamethylenediamine tetra(methylene phosphonic acid and salts thereof, polyacrylic acid and salts thereof, and combinations thereof (preferably ethylenediaminetetraacetic acid (EDTA), diethylenetriamine penta(methylene phosphonic acid and salts thereof, or combinations thereof).
5. The lens-forming composition of any one of claims 1 to 4, wherein said at least one free radical scavenger is selected from the group consisting of 4-Hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (hydroxyl-TEMPO), citric acid and salts thereof, ascorbic acid and salts thereof, (anything else), and combinations thereof (preferably 4-Hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (hydroxyl-TEMPO)).
6. The lens-forming composition of any one of claims 1 to 5, wherein the lens-forming composition comprises a UV-absorbing vinylic monomer in an amount to obtain the contact lens which has an UVB transmittance of about 10% or less (preferably about 5% or less, more preferably about 2.5% or less, even more preferably about 1% or less) between 280 and 315 nanometers and an UVA transmittance of about 30% or less (preferably about 20% or less, more preferably about 10% or less, even more preferably about 5% or less) between 315 and 380 nanometers.
7. The lens-forming composition of any one of claims 1 to 6, wherein the lens-forming composition comprises about 0.1% to about 3.0% (preferably about 0.2% to about 2.5%, more preferably about 0.3% to about 2.0%) by weight of said at least one polymerizable UV-absorbing components related to the amount of all polymerizable components in the lens-forming composition, wherein said at least one polymerizable UV-absorbing component is selected from the group consisting of 2-(2-hydroxy-5-vinylphenyl)-2H-benzotriazole, 2-(2-hydroxy-5-acryloyloxyphenyl)-2H-benzotriazole, 2-(2-hydroxy-3-methacrylamido methyl-5-tert octylphenyl) benzotriazole, 2-(2'-hydroxy-5'-methacrylamidophenyl)-5-chlorobenzotriazole, 2-(2'-hydroxy-5'-methacrylamidophenyl)-5-methoxybenzotriazole, 2-(2'-hydroxy-5'-methacryloxypropyl-3'-t-butyl-phenyl)-5-chlorobenzotriazole, 2-(2'-hydroxy-5'-methacryloxypropylphenyl) benzotriazole, 2-hydroxy-5-methoxy-3-(5-(trifluoromethyl)-2H-benzo[d][1,2,3]triazol-2-yl)benzyl methacrylate (WL-1), 2-hydroxy-5-methoxy-3-(5-methoxy-2H-benzo[d][1,2,3]triazol-2-yl)benzyl methacrylate (WL-5), 3-(5-fluoro-2H-benzo[d][1,2,3]triazol-2-yl)-2-hydroxy-5-methoxybenzyl methacrylate (WL-2), 3-(2H-

benzo[d][1,2,3]triazol-2-yl)-2-hydroxy-5-methoxybenzyl methacrylate (WL-3), 3-(5-chloro-2H-benzo[d][1,2,3]triazol-2-yl)-2-hydroxy-5-methoxybenzyl methacrylate (WL-4), 2-hydroxy-5-methoxy-3-(5-methyl-2H-benzo[d][1,2,3]triazol-2-yl)benzyl methacrylate (WL-6), 2-hydroxy-5-methyl-3-(5-(trifluoromethyl)-2H-benzo[d][1,2,3]triazol-2-yl)benzyl methacrylate (WL-7), 4-allyl-2-(5-chloro-2H-benzo[d][1,2,3]triazol-2-yl)-6-methoxyphenol (WL-8), 2-{2'-Hydroxy-3'-*tert*-5'[(3''-(4''-vinylbenzyloxy)propoxy)phenyl]-5-methoxy-2H-benzotriazole, phenol, 2-(5-chloro-2H-benzotriazol-2-yl)-6-(1,1-dimethylethyl)-4-ethenyl- (UVAM), 2-[2'-hydroxy-5'-(2-methacryloxyethyl)phenyl]-2H-benzotriazole (2-Propenoic acid, 2-methyl-, 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl ester, Norbloc), 2-{2'-Hydroxy-3'-*tert*-butyl-5'-[3'-methacryloyloxypropoxy]phenyl]-2H-benzotriazole, 2-{2'-Hydroxy-3'-*tert*-butyl-5'-[3'-methacryloyloxypropoxy]phenyl]-5-methoxy-2H-benzotriazole (UV13), 2-{2'-Hydroxy-3'-*tert*-butyl-5'-[3'-methacryloyloxypropoxy]phenyl]-5-chloro-2H-benzotriazole (UV28), 2-[2'-Hydroxy-3'-*tert*-butyl-5'-(3'-acryloyloxypropoxy)phenyl]-5-trifluoromethyl-2H-benzotriazole (UV23), 2-(2'-hydroxy-5-methacrylamidophenyl)-5-methoxybenzotriazole (UV6), 2-(3-allyl-2-hydroxy-5-methylphenyl)-2H-benzotriazole (UV9), 2-(2-Hydroxy-3-methyl-5-methylphenyl)-2H-benzotriazole (UV12), 2-3'-*t*-butyl-2'-hydroxy-5'-(3''-dimethylvinylsilylpropoxy)-2'-hydroxy-phenyl)-5-methoxybenzotriazole (UV15), 2-(2'-hydroxy-5'-methacryloylpropyl-3'-*tert*-butylphenyl)-5-methoxy-2H-benzotriazole (UV16), 2-(2'-hydroxy-5'-acryloylpropyl-3'-*tert*-butylphenyl)-5-methoxy-2H-benzotriazole (UV16A), 2-Methylacrylic acid 3-[3-*tert*-butyl-5-(5-chlorobenzotriazol-2-yl)-4-hydroxyphenyl]-propyl ester (16-100, CAS#96478-15-8), 2-(3-(*tert*-butyl)-4-hydroxy-5-(5-methoxy-2H-benzo[d][1,2,3]triazol-2-yl)phenoxy)ethyl methacrylate (16-102); Phenol, 2-(5-chloro-2H-benzotriazol-2-yl)-6-methoxy-4-(2-propen-1-yl) (CAS#1260141-20-5); 2-[2-Hydroxy-5-[3-(methacryloyloxy)propyl]-3-*tert*-butylphenyl]-5-chloro-2H-benzotriazole; and combinations thereof.

8. The lens-forming composition of any one of claims 1 to 6, wherein the lens-forming composition comprises about 0.1% to about 3.0% (preferably about 0.2% to about 2.5%, more preferably about 0.3% to about 2.0%) by weight of said at least one polymerizable UV-absorbing components related to the amount of all polymerizable components in the lens-forming composition, wherein said at least one polymerizable UV-absorbing component comprises a UV-absorbing vinylic monomer of any one of formula (VIII) to (XIV)



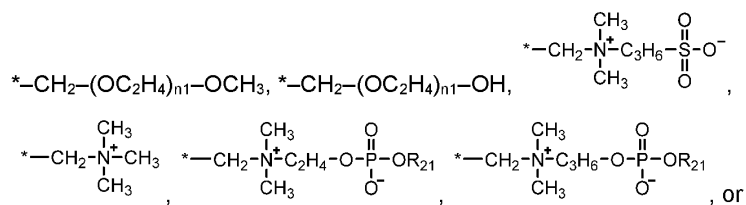
in which:

R⁰ is H, CH₃ or C₂H₅;

R⁰ is H, CH₃ or C₂H₅;

R₉, R₁₀ and R₁₇ independent of one other are H, CH₃, CCl₃, CF₃, Cl, Br, NR'R'' in which R' and R'' independent of each other are H or C₁-C₄ alkyl, OH, or OCH₃;

R₁₁ and R₁₂ independent of each other are H or a first hydrophilic group which is



$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_2-\text{COO}^-$$
, provided that at least one of R_{11} and R_{12} is the first hydrophilic group;

R_{13} is H, $*-\text{COOH}$, $*-\text{CONH}-\text{C}_2\text{H}_4-(\text{OC}_2\text{H}_4)_{n1}-\text{OCH}_3$, or $-\text{CONH}-\text{C}_2\text{H}_4-(\text{OC}_2\text{H}_4)_{n1}-\text{OH}$;

one of R_{14} and R_{15} is H or a second hydrophilic group which is $*-\text{CH}_2-(\text{OC}_2\text{H}_4)_{n1}-$

OCH_3 , $*-\text{CH}_2-(\text{OC}_2\text{H}_4)_{n1}-\text{OH}$,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{SO}_3^-$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_3$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_2\text{H}_4-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
, or

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
 while the other of R_{14} and R_{15}

is

$$*-\text{N}^+(\text{R}_{20})\text{CH}_2-\text{CH}(\text{OR}_{21})\text{OR}$$
,

$$*-\text{CH}_2-\text{N}^+(\text{R}_{20})\text{CH}_2-\text{CH}(\text{OCH}_3)\text{OR}$$
or

$$*-\text{OC}_3\text{H}_6-\text{N}^+(\text{R}_{20})\text{CH}_2-\text{CH}(\text{OCH}_3)\text{OR}$$
;

R_{16} independent of each other are H, CH_3 , CCl_3 , CF_3 , Cl, Br, $\text{NR}_1'\text{R}_1''$ in which R_1' and R_1'' independent of each other are H or C_1 - C_4 alkyl, OH, OCH_3 , SO_3H , or SO_3^-Na^+ ;

R_{18} is SO_3Na ,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{SO}_3^-$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_3$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_2\text{H}_4-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
, or

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_2-\text{COO}^-$$
;

R_{19} is H, SO_3Na ,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{SO}_3^-$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_3$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_2\text{H}_4-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
,

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{C}_3\text{H}_6-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
, or

$$*-\text{CH}_2-\text{N}^+(\text{CH}_3)_2\text{CH}_2-\text{COO}^-$$
;

R_{20} is CH_3 , C_2H_5 ,

$$*-\text{C}_3\text{H}_6-\text{SO}_3^-$$
,

$$*-\text{C}_2\text{H}_4-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
, or

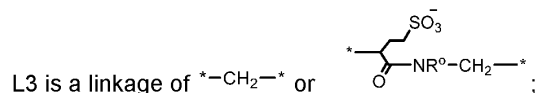
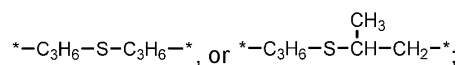
$$*-\text{C}_3\text{H}_6-\text{O}-\text{P}(\text{O})(\text{O}^-)\text{OR}_{21}$$
;

R_{21} is methyl or ethyl;

L1 is a linkage of $*-\text{CH}_2-\text{C}(=\text{O})^*$
, $*-\text{C}_3\text{H}_6-\text{S}-\text{CH}_2-\text{C}(=\text{O})^*$
, $*-\text{C}_3\text{H}_6-\text{S}-\text{CH}(\text{CH}_3)-\text{C}(=\text{O})^*$
, or

$$*-\text{C}_3\text{H}_6-\text{S}-\text{C}_2\text{H}_4-\text{C}(=\text{O})^*$$
;

L2 is a linkage of $*-\text{CH}_2^*$
, $*-\text{C}_2\text{H}_4^*$
, $*-\text{C}_3\text{H}_6^*$
, $*-\text{C}_3\text{H}_6-\text{S}-\text{C}_2\text{H}_4^*$
,



X1 is O or NR⁰;

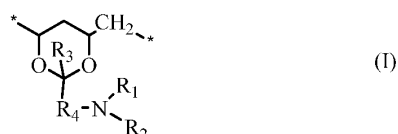
Y₁, Y₂, and Y₃ independent of one another are a C₂-C₄ alkylene divalent radical;

Q1, Q2, and Q3 independent of one another are a (meth)acryloylamido or (meth)acryloyloxy group;

m1 is zero or 1, provided that if m1 is zero, then Q₂ is a (meth)acryloylamido group; and

n1 is an integer of 2 to 20 (preferably 3 to 15, more preferably 4 to 10).

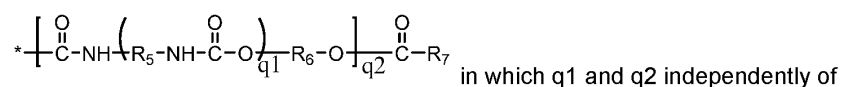
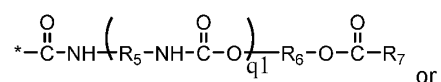
9. The lens-forming composition of any one of claims 1 to 8, wherein the lens-forming material comprises a water-soluble prepolymer (preferably which is free of silicone).
10. The lens-forming composition of claim 9, wherein the water-soluble prepolymer is a crosslinkable polyvinyl alcohol prepolymer which repeating units of vinyl alcohol of



in which:

R₁ is hydrogen or C₁-C₆ alkyl (preferably hydrogen or C₁-C₄ alkyl, more preferably hydrogen or methyl or ethyl, even more preferably hydrogen or methyl);

R₂ is an ethylenically unsaturated group of



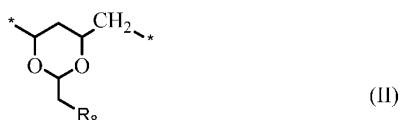
each other are zero or one, and R₅ and R₆ independently of each other are a C₂-C₈ alkylene divalent radical, R₇ is C₂-C₈ alkenyl;

R₃ can be hydrogen or a C₁-C₆ alkyl group (preferably hydrogen or methyl, more preferably hydrogen); and

R₄ is a C₁-C₆ alkylene divalent radical (preferably a C₁-C₄ alkylene divalent radical, more preferably a methylene or butylene divalent radical, even more

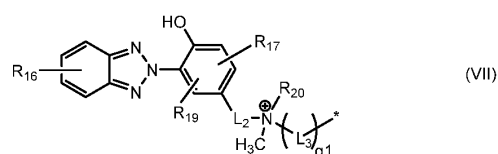
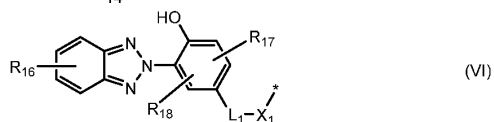
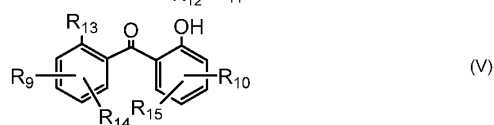
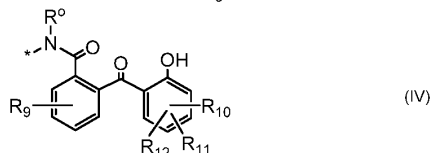
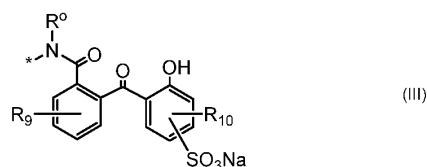
preferably a methylene divalent radical).

11. The lens-forming composition of claim 9 or 10, wherein the crosslinkable polyvinyl alcohol prepolymer further comprises UV-absorbing repeating units, each of which preferably is a repeating unit of formula (II)



in which:

R₈ is a monovalent radical of any one of formula (III)-(VII)



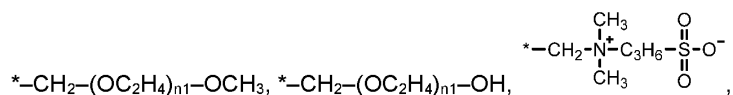
in which:

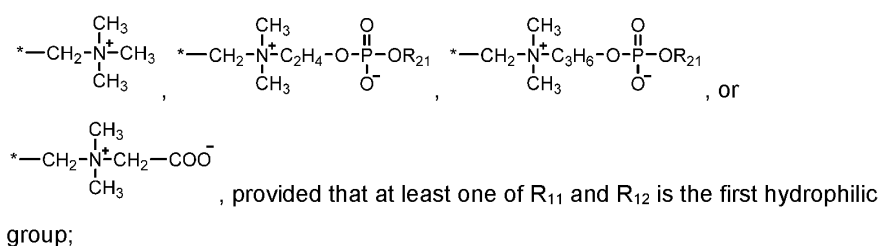
q₁ is zero or 1;

R⁰ is H, CH₃ or C₂H₅;

R₉, R₁₀ and R₁₇ independent of one other are H, CH₃, CCl₃, CF₃, Cl, Br, NR'R'' in which R' and R'' independent of each other are H or C₁-C₄ alkyl, OH, or OCH₃;

R₁₁ and R₁₂ independent of each other are H or a first hydrophilic group which is

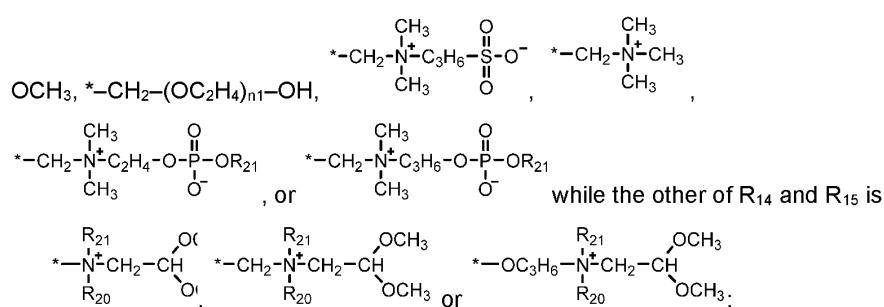




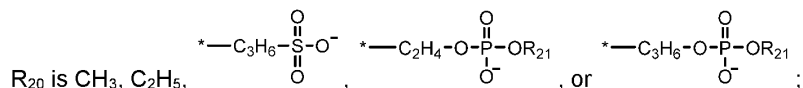
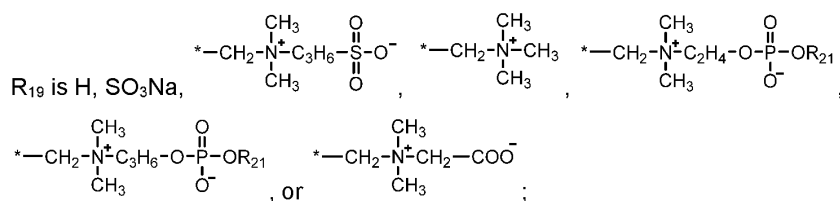
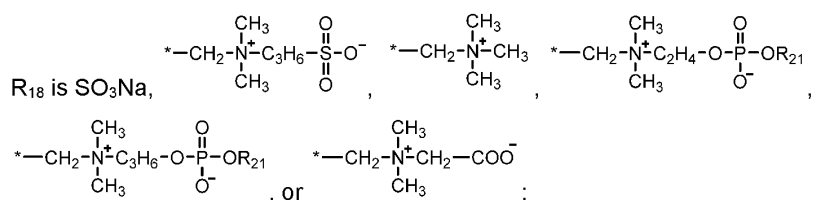
n1 is an integer of 2 to 20 (preferably 3 to 15, more preferably 4 to 10);

R₁₃ is H, *-COOH, *-CONH-C₂H₄-(OC₂H₄)_{n1}-OCH₃, or *-CONH-C₂H₄-(OC₂H₄)_{n1}-OH;

one of R₁₄ and R₁₅ is H or a second hydrophilic group which is *-CH₂-(OC₂H₄)_{n1}-

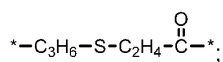


R₁₆ independent of each other are H, CH₃, CCl₃, CF₃, Cl, Br, NR_{1'}R_{1''} in which R_{1'} and R_{1''} independent of each other are H or C₁-C₄ alkyl, OH, OCH₃, SO₃H, or SO₃⁻Na⁺;

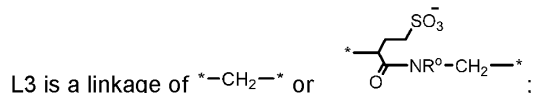
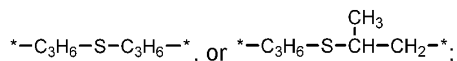


R₂₁ is methyl or ethyl;

L1 is a linkage of *-CH₂-C(=O)-*, *-C₃H₆-S-CH₂-C(=O)-*, *-C₃H₆-S-CH(C(=O)CH₃)-*, or



L2 is a linkage of $^*-\text{CH}_2-^*$, $^*-\text{C}_2\text{H}_4-^*$, $^*-\text{C}_3\text{H}_6-^*$, $^*-\text{C}_3\text{H}_6-\text{S}-\text{C}_2\text{H}_4-^*$,



X1 is O or NR⁰.

12. The lens-forming composition of any one of claims 1 to 11, wherein the lens-forming material comprises a silicone-containing prepolymer.
13. The lens-forming composition of any one of claims 1 to 12, wherein the lens-forming composition is a water-based lens-forming composition.
14. The lens-forming composition of any one of claims 1 to 13, wherein the pH of the lens-forming composition is maintained by an acetate-acetic acid buffering system.
15. A process for producing contact lenses, comprising the steps of:
obtaining a lens-forming composition of any one of claims 1 to 14;
introducing the lens-forming composition into a mold, wherein the mold has a first mold half with a first molding surface defining the anterior surface of a contact lens and a second mold half with a second molding surface defining the posterior surface of the contact lens, wherein said first and second mold halves are configured to receive each other such that a cavity for receiving the lens-forming composition is formed between said first and second molding surfaces; and
irradiating, with a second light, the lens-forming composition in the mold for a time period of about 15 seconds or less (preferably about 12.5 seconds or less, more preferably about 10 seconds or less, even more preferably from about 3 to about 9 seconds), so as to crosslink and/or polymerize said at least one lens-forming material to form the contact lens.
16. The process of claim 15, wherein the mold is a reusable mold, wherein the step of irradiating is performed under a spatial limitation of radiation, wherein the mold is a reusable mold comprising a mask which is fixed, constructed or arranged in, at or on the mold half having the radiation-permeable molding surface, wherein the mask is radiation-impermeable or at least of poor radiation-permeability compared with the radiation-permeable molding surface, wherein the mask extends inwardly right up to the mold cavity and surrounds the mold cavity so as to screen all areas behind the mask with the exception of the mold cavity.
17. A contact lens produced according to a process of claim 15 or 16.