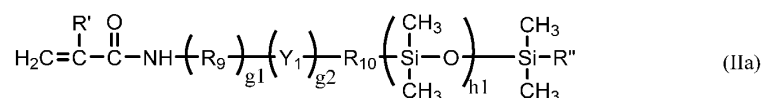


What is claimed is:

1. A polymerizable composition for actinically cast-molding photochromic silicone hydrogel contact lenses, wherein the polymerizable composition is a fluid composition which comprises:
 - (a) at least one hydrophilic (meth)acrylamido monomer,
 - (b) at least one siloxane-containing (meth)acrylamido monomer,
 - (c) at least one polysiloxane vinylic crosslinker,
 - (d) at least one photochromic compound, and
 - (e) from about 0.05% to about 1.5% by weight of at least one an acyl germanium photoinitiator relative to the total weight of the polymerizable composition, wherein the acyl germanium photoinitiator is capable of initiating a free-radical polymerization under irradiation with a light source including a light in the region of about 420 to about 500 nm,wherein the sum of the amounts of components (a) to (e) is at least 90% by weight relative to total amount of all polymerizable components in the polymerizable composition, wherein the polymerizable composition has a curing time of about 80 seconds or less as determined in photo-rheology study using a LED light source which provide a visible light with a spectral centroid of about 452nm and a total irradiance of about 54 mW/cm².
2. The polymerizable composition of claim 1, wherein the sum of the amounts of components (a) to (e) is at least 93% by weight relative to total amount of all polymerizable components in the polymerizable composition.
3. The polymerizable composition of claim 1 or 2, wherein the polymerizable composition has a curing time of about 65 seconds or less as determined in photo-rheology study using a LED light source which provide a visible light with a spectral centroid of about 452nm and a total irradiance of about 54 mW/cm².
4. The polymerizable composition of any one of claims 1 to 3, wherein the polymerizable composition comprises at least one photochromic compound in an amount of from about 0.005% to about 1.0% by weight, relative to the total weight of the polymerizable composition.
5. The polymerizable composition of any one of claims 1 to 4, wherein said at least one hydrophilic (meth)acrylamido monomer comprises (meth)acrylamide, N,N-dimethyl (meth)acrylamide, N-ethyl (meth)acrylamide, N,N-diethyl (meth)acrylamide, N-propyl (meth)acrylamide, N-isopropyl (meth)acrylamide, N-3-methoxypropyl (meth)acrylamide, N-2-hydroxyethyl (meth)acrylamide, N,N-bis(hydroxyethyl) (meth)acrylamide, N-3-hydroxypropyl (meth)acrylamide, N-2-hydroxypropyl

(meth)acrylamide, N-2,3-dihydroxypropyl (meth)acrylamide, N-4-hydroxybutyl (meth)acrylamide, N,N-bis(2-hydroxyethyl) (meth)acrylamide, *N*-tris(hydroxymethyl) methyl (meth)acrylamide, 2-(meth)acrylamidoglycolic acid, 3-(meth)acrylamido-propionic acid, 4-(meth)acrylamido-butanoic acid, 3-(meth)acrylamido-2-methylbutanoic acid, 3-(meth)acrylamido-3-methylbutanoic acid, 2-(meth)acrylamido-2-methyl-3,3-dimethyl butanoic acid, 5-(meth)acrylamidopentanoic acid, 3-(meth)acrylamidohexanoic acid, 4-(meth)acrylamido-3,3-dimethylhexanoic acid, (3-(meth)acrylamidophenyl)boronic acid, 3-((3-methacrylamidopropyl)dimethylammonio)-propane-1-sulfonate; 3-((3-acrylamidopropyl)dimethylammonio)propane-1-sulfonate, N-2-aminoethyl (meth)acrylamide, N-2-methylaminoethyl (meth)acrylamide, N-2-ethylaminoethyl (meth)acrylamide, N-2-dimethylaminoethyl (meth)acrylamide, N-3-aminopropyl (meth)acrylamide, N-3-methylaminopropyl (meth)acrylamide, N-3-dimethylaminopropyl (meth)acrylamide, poly(ethylene glycol)ethyl (meth)acrylamide having a number average molecular weight of up to 700, methoxy-poly(ethylene glycol)ethyl (meth)acrylamide having a number average molecular weight of up to 700, or combination thereof.

6. The polymerizable composition of any one of claims 1 to 5, wherein said at least one siloxane-containing (meth)acrylamido monomer comprises a (meth)acrylamido monomer containing a tris(trialkylsiloxy)silyl group or a bis(trialkylsiloxy)alkylsilyl group and/or a mono-(meth)acrylamido-terminated oligo- or polysiloxane of formula (IIa)

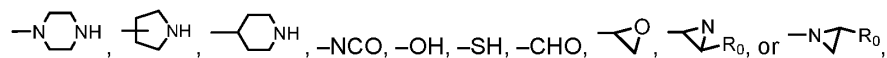


in which R' is hydrogen or methyl, R'' independent of each other is C₁-C₆ alkyl, g₁ and g₂ independent of each other are integer of 0 or 1, h₁ is an integer of 2 to 25, R₉ and R₁₀ independent of each other are a substituted or unsubstituted C₁-C₁₀ alkylene

divalent radical, Y₁ is a linkage of $-\text{NH}-\overset{\text{O}}{\parallel}{\text{C}}-$, $-\overset{\text{O}}{\parallel}{\text{C}}-\text{NH}-$, or $-\overset{\text{R}_{12}'}{\underset{\text{R}_{12}}{\text{C}}}-\overset{\text{O}}{\parallel}{\text{C}}-\text{O}-$ in which R₁₂ and R_{12'} independent of each other are C₁-C₆ alkyl.

7. The polymerizable composition of any one of claims 1 to 6, wherein said at least one polysiloxane vinylic crosslinker comprises: (1) a vinylic crosslinker which comprises one sole polydiorganosiloxane segment and two terminal ethylenically-unsaturated groups selected from the group consisting of (meth)acryloyloxy groups, (meth)acryloylamino groups, vinyl carbonate groups, vinylcarbamate groups; and/or

- (2) a chain-extended polysiloxane vinylic crosslinker which comprises at least two polydiorganosiloxane segment and a covalent linker between each pair of polydiorganosiloxane segments and two terminal ethylenically-unsaturated groups selected from the group consisting of (meth)acryloyloxy groups, (meth)acryloylamino groups, vinyl carbonate groups, vinylcarbamate groups.
8. The polymerizable composition of any one of claims 1 to 7, wherein said at least one photochromic compound comprises a naphthopyran, an indeno-fused naphthopyran (i.e., indeno-naphthopyran), a heterocyclic ring-fused naphthopyran, a benzopyran, a phenanthropyran, a quinopyran, a quinolinopyran, a fluoroanthenopyran, an anthracene-fused pyran, a tetracene-fused pyran, a spiro(benzindoline) naphthopyran, a spiro(indoline)naphthopyran, a spiro(indoline)benzopyran, a spiro(indoline)quinopyran, a spiro(indoline)pyran, a naphthoxazine, a spirobenzopyran, a spirobenzothiopyran, a naphthacenedione, a benzoxazine, a spirooxazine, a naphthoxazine, a spiro(benzindoline)naphthoxazine, a spiro(indoline)naphthoxazine, a spiro(indoline)pyrido-benzoxazine, a spiro(indoline)benzoxazine, a spiro(benzindoline) benzoxazine, a spiro(benzindoline)pyridobenzoxazine, a spiro(indoline) fluoranthenoxazine, a spiro(indoline)-quinoxazine, a spiro(piperidine)-naphthopyran, a piro(indoline)pyronobenzoxazinone, a benzospiropyran, a naphthospiropyran, a spirobenzoxazine-pyrrolopyridine, a spironaphthoxazine-pyrrolopyridine, a spiro-oxazepin-benzoxazine, a spiro-oxazepin-naphthoxazine, a spiro(indoline) benzothiazoloxazine, a spiro(indoline)benzopyrroloxazine, a spiro(indoline)quinazolino-oxazine, a spiro(indoline)-anthracenobenzoxazine, a benzofurobenzopyran, a benzothienobenzopyran, a naphthofurobenzopyran, a benzopyrano-fused naphthopyran, a spiro(isoindoline)-naphthoxazine, a spiro(isoindoline)benzoxazine, or a mixture thereof.
 9. The polymerizable composition of claim 8, wherein said at least one photochromic compound is polymerizable and comprises an ethylenically-unsaturated group).
 10. The polymerizable composition of claim 9, wherein said at least one photochromic compound is a coupling reaction product of a reactive (meth)acrylamido or (meth)acryloxy monomer having a first reactive functional group and a reactive photochromic compound have a second reactive functional group in the absence or presence of a coupling agent under coupling reaction, wherein the first reactive functional group is selected from the group consisting of $-\text{COCl}$, $-\text{COBr}$, $-\text{COOH}$, $-\text{NHR}_{\text{N}2}$, $-\text{NCO}$, $-\text{OH}$, $-\text{CHO}$, >C=O , >C=N-R_0 , or >N-R_0 , wherein the second reactive functional group is selected from the group consisting of $-\text{COOH}$, $-\text{NHR}_{\text{N}2}$,



wherein R_0 is hydrogen or methyl and R_{N2} is hydrogen, a linear or branched C_1 - C_{15} alkyl, cyclohexyl, cyclopentyl, a substituted or unsubstituted phenyl, or a substituted- or unsubstituted-phenyl- C_1 - C_6 alkyl.

11. The polymerizable composition of claim 9, wherein reactive (meth)acrylamido or (meth)acryloxy monomer is selected from the group consisting of (meth)acryloyl halides ($CH_2=CH-COX$ or $CH_2=CCH_3-COX$, $X=Cl$ or Br), N-hydroxysuccinimide ester of (meth)acrylic acid, glycidyl (meth)acrylate, isocyanato- C_2 - C_6 alkyl (meth)acrylate, amino- C_2 - C_6 alkyl (meth)acrylamide, C_1 - C_6 alkylamino- C_2 - C_6 alkyl (meth)acrylamide, (meth)acrylic acid, C_2 - C_4 alkylacrylic acid (e.g., ethylacrylic acid, propylacrylic acid, butylacrylic acid), N-2-acrylamidoglycolic acid, 3-(acryloylxy)propanoic acid, C_2 - C_6 hydroxylalkyl (meth)acrylate, C_2 - C_6 hydroxyalkyl (meth)acrylamide, azlactone-containing vinylic monomers (e.g., 2-vinyl-4,4-dimethyl-1,3-oxazolin-5-one, 2-isopropenyl-4,4-dimethyl-1,3-oxazolin-5-one, 2-vinyl-4-methyl-4-ethyl-1,3-oxazolin-5-one, 2-isopropenyl-4-methyl-4-butyl-1,3-oxazolin-5-one, 2-vinyl-4,4-dibutyl-1,3-oxazolin-5-one, 2-isopropenyl-4-methyl-4-dodecyl-1,3-oxazolin-5-one, 2-isopropenyl-4,4-diphenyl-1,3-oxazolin-5-one, 2-isopropenyl-4,4-pentamethylene-1,3-oxazolin-5-one, 2-isopropenyl-4,4-tetramethylene-1,3-oxazolin-5-one, 2-vinyl-4,4-diethyl-1,3-oxazolin-5-one, 2-vinyl-4-methyl-4-nonyl-1,3-oxazolin-5-one, 2-isopropenyl-4-methyl-4-phenyl-1,3-oxazolin-5-one, 2-isopropenyl-4-methyl-4-benzyl-1,3-oxazolin-5-one, 2-vinyl-4,4-pentamethylene-1,3-oxazolin-5-one, and 2-vinyl-4,4-dimethyl-1,3-oxazolin-6-one, with 2-vinyl-4,4-dimethyl-1,3-oxazolin-5-one (VDMO) and 2-isopropenyl-4,4-dimethyl-1,3-oxazolin-5-one (IPDMO) as preferred azlactone-containing vinylic monomers), aziridinyl C_1 - C_{12} alkyl (meth)acrylate (e.g., 2-(1-aziridinyl) ethyl (meth)acrylate, 3-(1-aziridinyl) propyl (meth)acrylate, 4-(1-aziridinyl) butyl (meth)acrylate, 6-(1-aziridinyl) hexyl (meth)acrylate, or 8-(1-aziridinyl) octyl (meth)acrylate), acrolein, methacrolein, crotonaldehyde, and combinations thereof.
12. The polymerizable composition of claim 10 or 11, wherein the reactive photochromic compound comprises 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-hydroxyethoxy-13-phenyl-3H,13H-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-(2-hydroxycarbonylethyl)carboxyethoxy-13-phenyl-3H,13H-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-hydroxy-13-phenyl-3H,13H-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-(2-hydroxycarbonylethyl)carboxy-13-phenyl-3H,13H-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-hydroxy-

13-propyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,11-dimethyl-13-(2-hydroxycarbonylethyl)carboxy-13-propyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-10,11-dimethoxy-13-hydroxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-10,11-dimethoxy-13-(2-hydroxycarbonylethyl)carboxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-7-methoxy-11-phenyl-13-hydroxymethyl-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-7-methoxy-11-phenyl-13-(2-hydroxycarbonylethyl)carboxymethyl-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-7-methoxy-11-phenyl-13-hydroxy-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-7-methoxy-11-phenyl-13-(2-hydroxycarbonylethyl)carboxy-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-11-phenyl-13-hydroxy-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-11-phenyl-13-(2-hydroxycarbonylethyl)carboxy-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,7,10,11-tetramethoxy-13-hydroxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-6,7,10,11-tetramethyl-13-(2-hydroxycarbonylethyl)carboxy-13-methyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,7-dimethoxy-13-hydroxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-bis(4-methoxyphenyl)-11-(4-(4,5-diphenyl-1H-imidazol-2-yl)phenyl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6-methoxy-7-(3-hydroxymethylenepiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6-methoxy-7-(3-(2-hydroxycarbonylethyl)carboxymethylenepiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,7-dimethoxy-13-hydroxy-13-butyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,11,13-trimethyl-13-(2-(2-hydroxyethoxy)ethoxy)-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,11,13-trimethyl-13-(2-(2-(2-(2-hydroxyethoxy)ethoxy)ethoxy)ethoxy)-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-diphenyl-13-hydroxy-13-(2-oxo-2-ethoxyethyl)-1H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,11-dimethyl-13-hydroxy-13-(2-oxo-2-ethoxyethyl)-1H-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-6,11-dimethyl-13-butyl-13-hydroxy-indeno[2,1-f]naphtho[1,2-b]pyran; 3,3-bis(4-hydroxyphenyl)-7-methoxy-11-phenyl-13,13-diethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-hydroxyphenyl)-7-methoxy-11-phenyl-13,13-dipropyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-bis(4-hydroxyphenyl)-7-methoxy-11-phenyl-13-carbomethoxy-13-methyl-3H,13H-

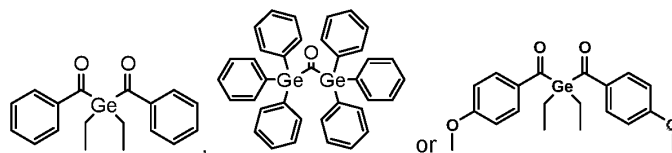
indeno[2',3':3,4] naphtho[1,2-b]pyran; 3,3-diphenyl-6,7-dimethoxy-13-methyl-13-methyl-13-hydroxyethoxy-ethoxyethoxy-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3,3-diphenyl-6,7,10,11-tetramethoxy-13-ethyl-13-methyl-13-hydroxyethoxyethoxy-3H,13H-indeno[2',3':3,4]naphtho [1,2-b]pyran; 6,7-dimthoxy-2,2-diphenyl-13-hydroxy-13-butyl-2H,13H-indeno[1',2':4,3] naphtho[1,2-b]pyran; 6,7-dimthoxy-2,2-diphenyl-13-hydroxy-13-methyl-2H,13H-indeno[1',2':4,3]naphtho[1,2-b]pyran; 6,7-dimthoxy-2,2-diphenyl-13-hydroxy-2H,13H-indeno[1',2':4,3]naphtho[1,2-b]pyran; 3-(4-allyloxyphenyl)-3-(4-morpholinophenyl)-7-methoxy-11-phenyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-butoxyphenyl)-10-(piperazin-1-yl)-6-trifluoromethyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-butoxyphenyl)-10-(4-hydroxybenzamido)-6-trifluoromethyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-butoxyphenyl)-10-vinyl-6-trifluoromethyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-butoxyphenyl)-10-(carboxylic acid)-6-trifluoromethyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-methoxyphenyl)-6-methoxy-7-(4-hydroxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-methoxyphenyl)-6-methoxy-7-(4-(2-hydroxycarbonyl)ethyl) carboxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-morpholinophenyl)-6-methoxy-7-(4-hydroxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-fluorophenyl)-3-(4-morpholinophenyl)-6-methoxy-7-(4-(2-hydroxycarbonyl)ethyl) carboxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4] naphtho[1,2-b]pyran; 3-(4-hydroxyethoxyphenyl)-3-(4-methoxyphenyl)-11-(4-(N,N-dimethylamino)phenyl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(2,4-dimethoxyphenyl)-phenyl-6,11-dimethoxy-13-methyl-13-methyl-13-hydroxyethoxyethoxyethoxy-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(3-methyl-4-methoxyphenyl)-13-hydroxy-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-6,7,10,11-tetramethoxy-13-hydroxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-6,7,10,11-tetramethoxy-13-hydroxy-13-butyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-6,7-dimethoxy-13-hydroxy-13-ethyl-3H,13H-indeno [2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-6,7-dimethoxy-13-hydroxy-13-methyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-13-oxo-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-phenyl-6-methoxy-7-

mporphlino-13-methyl-13-methyl-13-hydroxyethoxyethoxyethoxy-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-phenyl-6,11-dimethoxy-13-methyl-13-methyl-13-hydroxyethoxy-ethoxy-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 2-(4-methoxyphenyl)-2-(4-morpholinophenyl)-5-hydroxy-6-carboethoxy-2H-naphtho[1,2-b] pyran; 3-(4-morpholinophenyl)-3-phenyl-6,7-dimethoxy-13-hydroxy-13-ethyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-morpholinophenyl)-3-phenyl-6,7-dimethoxy-13-hydroxy-13-butyl-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-morpholinophenyl)-3-phenyl-6,7-dimethoxy-13-oxo-3H,13H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-phenyl-3-(4-hydroxyethoxyphenyl)-6-methoxy-7-morpholino-13,13-dimethyl-3H,13H-indeno-[2',3':3,4] naphtho[1,2-b]pyran; 3-phenyl-3-(4-(2-hydroxycarbonylethyl)carboxyethoxy-phenyl)-6-methoxy-7-morpholino-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(2-hydroxyethoxy)phenyl)-6-methoxy-7-piperidino-13,13-dimethyl-3H,13H-indene[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(2-(2-hydroxycarbonylethyl)-carboxyethoxy)phenyl)-6-methoxy-7-piperidino-13,13-dimethyl-3H,13H-indene[2',3':3,4] naphtho[1,2-b]pyran; 3-phenyl-3-(4-hydroxyphenyl)-6,7-dimethoxy-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-hydroxyethoxy)phenyl)-6,7-dimethoxy-13,13-dimethyl-3H,13H-indeno[2',3':3,4]-naphtho[1,2-b]pyran; 3-phenyl-3-(4-(2-hydroxycarbonylethyl)carboxyethoxy)phenyl)-6,7-dimethoxy-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(2-hydroxycarbonylethyl)carboxy-phenyl)-6,7-dimethoxy-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-(2-hydroxyethyl)piperazin-1-yl)phenyl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-(2-(2-hydroxycarbonylethyl)-carboxyethyl)piperazin-1-yl)phenyl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-6-methoxy-7-piperazinyl-13,13-dimethyl-3H,13H-indene[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-6-methoxy-7-(3-hydroxymethylenepiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-6-methoxy-7-(3-(2-hydroxycarbonylethyl) carboxymethylenepiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-6-methoxy-7-(4-hydroxypipendin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho-[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-6-methoxy-7-(4-(2-hydroxycarbonylethyl)-carboxypipendin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-methoxyphenyl-piperazin-1-yl)phenyl)-13,13-dimethyl-6-methoxy-7-hydroxy-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-methoxyphenyl-piperazin-1-yl)phenyl)-13,13-dimethyl-6-methoxy-7-(2-hydroxy-2-methyl-3-butyn-4-

yl)-indeno[2',3':3,4]naphtho [1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-(3-hydroxymethylene-piperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho-[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-(3-(2-hydroxycarbonyl-ethyl)carboxymethylene-piperidin-1-yl)-13,13-dimethyl-3H,13H-indeno [2',3':3,4]-naphtho[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-(3-(2-hydroxycarbonylethyl)carboxymethylene-piperidin-1-yl)-13,13-dimethyl-3H,13H-indeno [2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-(4-hydroxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-(4-(2-hydroxycarbonylethyl)-carboxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4] naphtho[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6-methoxy-7-piperazinyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho [1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-6,11-dimethyl-13-hydroxy-13-(1-oxo-methoxyprop-2-yl)-1H-indeno[2,1-f]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-phenylpiperazino)-phenyl)-6-methoxy-7-(4-hydroxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4] naphtho[1,2-b]pyran; 3-phenyl-3-(4-(4-phenylpiperazino)phenyl)-6-methoxy-7-(4-(2-hydroxycarbonylethyl) carboxypiperidin-1-yl)-13,13-dimethyl-3H,13H-indeno[2',3':3,4] naphtho[1,2-b]pyran; 3-phenyl-3-(4-piperazinylphenyl)-6,11-dimethoxy-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho-[1,2-b]pyran; 3-phenyl-3-(4-piperazinylphenyl)-6-methoxy-7-piperidinyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-(3-methylpiperazin-1-yl)phenyl)-6-methoxy-7-(decahydroisoquinolin-2-yl)-11-*tert*-butyl-13,13-dimethyl-3H,13H-indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(4-morpholinophenyl)-16-(ethoxycarbonyl)methyl-16-hydroxy-3,16-dihydrobenzofuro-[2',3':7,8] indeno[2',3':3,4]naphtho[1,2-b]pyran; 3-phenyl-3-(4-methoxyphenyl)-16-(ethoxycarbonyl)-methyl-16-hydroxy-3,16-dihydrobenzofuro [2'',3'':6',7']indeno-[3',2':4,3]naphtho[1,2-b]pyran; 3-phenyl-3-(4-morpholinophenyl)-16-(ethoxycarbonyl)-methyl-16-hydroxy-3,16-dihydrobenzofuro[2'',3'':6',7']indeno[3',2':4,3] naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-16-(ethoxycarbonyl)methyl-16-hydroxy-3,16-dihydro-benzofuro[2',3':7,8]indeno[2',3':3,4] naphtho[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-16-hydroxy-16-ethyl-16H-benzofuro[2',3':7,8] indeno[2',3':3,4]naphtho [1,2-b]pyran; 3,3-di(4-methoxyphenyl)-16-hydroxy-16H-benzofuro [2'',3'':6,7]indeno [3',2':4,3]naphtho-[1,2-b]pyran; 3,3-di(4-methoxyphenyl)-16-hydroxy-16-ethyl-16H-benzofuro[2'',3'':6,7]-indeno[3',2':4,3]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(2,3-dihydrobenzofur-5-yl)-13-hydroxy-13-methyl-indeno[2,1-f]naphtho[1,2-b]pyran; 3-(4-methoxyphenyl)-3-(2,3-dihydrobenzofur-5-yl)-6,11-difluoro-13-hydroxy-13-(1-oxo-methoxyprop-2-yl)-1H-indeno[2,1-f]naphtho[1,2-

b]pyran, or a mixture thereof.

13. The polymerizable composition of any one of claims 1 to 12, wherein said at least one acylgermanium photoinitiator comprises any one of



14. The polymerizable composition of any one of claims 1 to 13, wherein the polymerizable composition comprises at least one UV-absorbing vinylic monomer and/or at least one UV/HEVL-Absorbing vinylic monomer.
15. The polymerizable composition of any one of claims 1 to 14, wherein the polymerizable composition comprises:
- (1) from about 5% to about 60% by weight of said at least one hydrophilic (meth)acrylamide-type monomer;
 - (2) from about 5% to about 50% by weight of said at least one siloxane-containing (meth)acrylamido monomer;
 - (3) from about 5% to about 50% by weight of said at least one polysiloxane vinylic crosslinker; and
 - (4) from about 0.1% to about 2.5% by weight of at least one UV-absorbing vinylic monomer,
- with the proviso that the listed components and any additional components add up to 100% by weight.
16. A method for producing photochromic silicone hydrogel contact lenses, the method comprising the steps of:
- (1) obtaining 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 is formed between said first and second molding surfaces;
 - (2) introducing a polymerizable composition of any one of claims 1 to 15 into the cavity; and
 - (3) irradiating the polymerizable composition in the mold for about 80 seconds or less with a visible light in a region of from 420 to 500 nm, so as to form the photochromic silicone hydrogel contact lens,

wherein the formed photochromic silicone hydrogel contact lens comprises an anterior surface defined by the first molding surface and an opposite posterior surface defined by the second molding surface and is capable of undergoing reversible change from a

colorless or light-colored state to a colored state upon exposure to UV or HEVL irradiation.

17. The method of claim 16, wherein the mold is a reusable mold, wherein the step of irradiating is performed under a spatial limitation of actinic radiation, wherein the formed UV-absorbing silicone hydrogel contact lens comprises a lens edge defined by the spatial limitation of actinic radiation.
18. The method of claim 16 or 17, wherein the polymerizable composition in the mold is irradiated for about 65 seconds or less.
19. A photochromic silicone hydrogel contact lens obtained according to a method of any one of claims 16 to 18.
20. The photochromic silicone hydrogel contact lens of claim 19, having: an oxygen permeability of at least about 40 barrers (preferably at least about 60 barrers, more preferably at least about 80 barrers) (at about 35°C); an elastic modulus of about 2.0 MPa or less (preferably about 1.5 MPa or less, more preferably about 1.2 or less, even more preferably from about 0.4 MPa to about 1.0 MPa) (at a temperature of from 22°C to 28°C); and/or a water content of from about 15% to about 70% (preferably from about 20% to about 50% by weight) (at a temperature of from 22°C to 28°C) when fully hydrated.