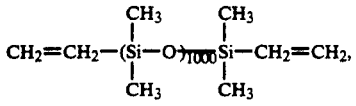
The following non-limiting examples illustrate certain aspects of the present invention.

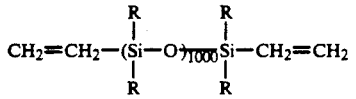
EXAMPLES 1 TO 4

A series of addition-cure cross-linked polysiloxane polymer compositions were prepared and tested as follows.

Two commercially available, base polymers were used. Base polymer I had approximately the following formula

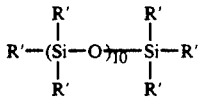


and base polymer II had approximately the following formula



wherein each R is either vinyl or methyl. In base polymer I, the number of vinyl groups equals to about 0.2% of the total of vinyl groups plus methyl groups. In base polymer II, the number of vinyl groups is equal to about 1.2% of the total of vinyl groups plus methyl groups.

Two commercially available cross-linker components were used. Cross-linker component III had approximately the following formula



wherein each R' is either methyl or H, provided that the total number of Hs in cross-linker component III is equal to about 50% of the total number of methyl groups plus Hs. Cross-linker component IV has a formula similar to that of cross-linker component III except that the total number of Hs in cross-linker component IV is equal to about 20% of the total number of methyl groups plus Hs.

Each polymer composition was prepared as follows. Equal weights of a base polymer and a cross-linker component were mixed together with a commercially available platinum-containing catalyst. The mixture was allowed to cure at room temperature. After curing, the cured material was subjected to a dry atmosphere at 100° C. for about 1 hour. After this exposure, the color of the cured material was noted.

	Results of these tests are as follows			
Composition	1	2	3	4
Base Polymer	I	I	II	II
Cross-linker Component	III	III	III	IV
Vinyl to Hydride Ratio in Mixture, molar	0.38	1.12	8.73	6.46
Platinum Concentration, ppm	12	28	47	48
Color of Cured Material After Exposure	Yellow/ Brown	Brown	Clear	Clear

These results demonstrate that cured or cross-linked polysiloxane polymers derived from precursor components in which the vinyl to hydride mole ratio is greater than 1 have reduced susceptibility to discoloration relative to similar polymers derived from precursor components having a vinyl to hydride mole ratio of 1 or less. It is particularly interesting to note that when the precursor vinyl to hydride mole ratio is greater than about 1, preferably greater than about 5, increased concentrations of platinum catalyst may be employed without detrimentally affecting the discoloration susceptibility of the final polymer. This is advantageous since increased catalyst concentrations provide for polymer curing at reduced temperatures and/or in reduced times. In many prior art formulations, the amount of platinum-containing catalyst was minimized in an attempt to avoid discoloration. However, in accordance with the present invention, advantageously large amounts of platinum-containing catalyst can be employed with reduced susceptibility to discoloration in the final polymer composition.

EXAMPLES 5 AND 6

The precursor mixtures used to produce Compositions 3 and 4 are each injected into an evacuated lens capsule of a human eye. Over a period of time, the mixtures each cure into an optically clear polymeric composition. Satisfactory results are obtained in terms of continued optical clarity of the cured material over a prolonged period of time, for example, in the range of about one month to about 6 months or a year after injection.

While this invention has been described with respect to various specific examples and embodiments, it is to be understood that the invention is not limited thereto and that it can be variously practiced within the scope of the following claims.

What is claimed is:

1. A composition comprising an optically clear, cross-linked polymer having a chemical make-up so as to be useful in the optic of an intraocular lens, said polymer being derived from the polymerization of a mixture comprising

(A) a vinyl-containing polyorganosiloxane component, (B) an organosilicon component including silicon-bonded hydride groups which react with vinyl groups included in (A) during said polymerization and (C) an effective amount of a platinum group metal-containing catalyst component, provided that the mole ratio of vinyl groups to silicon-bonded hydride groups in the mixture is at least about 6.46 and is such that said polymer has a reduced discoloration susceptibility relative to a substantially identical polymer having a mole ratio of vinyl groups to silicon-bonded hydride groups in the precursor mixture equal to 1.2.

2. The composition of claim 1 wherein said platinum group metal-containing catalyst component is present in an amount of at least about 10 ppm by weight, based on the total weight of (A) plus (B), calculated as elemental platinum group metal.