

glycerol triethoxy triacrylate, and glycerol trimethacrylate.

Even though particular embodiments of the invention have been illustrated and described herein, i.e. Examples 1 through 4, it is not intended to limit the invention and modifications may be made therein within the scope of the claims presented.

What is claimed is:

1. A high refractive index polymeric composition which consists essentially of polymerized mixture of four monomeric components and a crosslinking agent, said mixture consisting essentially of from about 50 to 75% by weight of 2-vinyl pyrrolidone, from about 3.25 to 12.5% by weight of 2-hydroxypropyl acrylate, from about 5 to 35% by weight of acrylamide, from about 3.25 to 12.5% by weight 2-hydroxyethyl methacrylate, and from about 1.25 to 15 parts per hundred parts of said polymerized mixture by weight of a crosslinking agent selected from the group consisting of tetraethylene glycol dimethacrylate and dibromoneopentyl glycol dimethacrylate, the monomeric components totaling 100% by weight exclusive of the crosslinking agent.

2. An expansile, polymeric, optically clear hydrogel having a dehydrated state, wherein said hydrogel is

capable of being formed in the dehydrated state into an intraocular lens and having

(a) an equilibrium water content of at least 40 per cent by weight of the gel,

(b) a refractive index measured from air with respect to the lens material of at least 1.53 in the dehydrated state and at least 1.40 in a swollen state, and

(c) a swell factor in aqueous humor which renders the intraocular lens particularly suitable for small incision cataract surgery.

3. The hydrogel of claim 2, wherein the swell factor of the hydrogel is about 180%.

4. The hydrogel of claim 3, wherein the hydrogel is sized to be inserted in its dehydrated state through an incision of less than 3.5 mm and expanded by the aqueous humor to a 5.8 mm optic in about twenty minutes.

5. A process for preparing a hydrogel of claim 1 which comprises polymerizing in the presence of catalytic initiator selected from the group consisting of benzoyl peroxide and hydrogen peroxide a monomeric mixture comprising 2-vinyl pyrrolidone, acrylamide, 2-hydroxypropyl acrylate, 2-hydroxyethyl methacrylate and an additive selected from the group consisting of tetraethylene glycol dimethacrylate and dibromoneopentyl glycol dimethacrylate.

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