

Title (en)  
POLYMERIC MATERIAL COMPOSITIONS AND INTRAOCULAR LENSES MADE FROM SAME

Title (de)  
POLYMERE ZUSAMMENSETZUNGEN UND DARAUS HERGESTELLTE INTRAOCULARLINSE

Title (fr)  
COMPOSITIONS DE MATERIAU POLYMERE ET CRISTALLINS ARTIFICIELS REALISES A PARTIR DE CES DERNIERES

Publication  
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Application  
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Abstract (en)  
[origin: WO0057213A1] A deformable intraocular lens comprised of copolymers of methacrylate esters having general formulae (I) and (II) wherein R and R' are independently n-alkyl, sec-alkyl, iso-alkyl, tert-alkyl, other isomeric alkyl radicals, substituted alkyl radicals containing oxygen and substituted alkyl radicals containing nitrogen and R'' is included to modify the hydrophobicity of the copolymer are disclosed. Preferably, R and R' are C1-C20, branched or linear alkyl radicals, wherein R' contains only aliphatic alkyls and more preferably, R=CH3 so that one of the monomers is methylmethacrylate (MMA). Optionally included for formulae (I) and (II) is a cross-linking monomer having a plurality of polymerizable ethylenically unsaturated groups. Still optionally, an ultraviolet absorbing material (UV absorber) with a polymerizable functional group is also incorporated into the copolymer. These methacrylate copolymers can be used to form intraocular lenses that have an essentially tack-free surface, a glass transition temperature (Tg) below about 37 DEG C, a tensile strength from about 100 psi to about 1000 psi, and a refractive index from about 1.47 to about 1.49. These lenses are flexible and transparent, capable of being inserted into the eye through a relatively small incision, and recover to their original shape after insertion into the eye.

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