



Medicament Coated Refractive
Anterior Chamber Ocular Implant

Abstract

A minus power anterior chamber ocular implant for placement in the anterior chamber of a phakic eye having an anatomic lens in situ comprises a negative artificial refracting lens having at least one concave surface, a surface coating which comprises a compatible sulfated polysaccharide medicament coating, such as heparin, and means for positioning the artificial lens in the anterior chamber of the eye to prevent contact between the implant and the anatomic lens. The implant compensates for refractive errors or creates a specific refraction to assist in visual function and has increased biocompatibility in the anterior chamber of the eye, thereby preventing or mitigating detrimental effects typically associated with the implantation of an uncoated refractive anterior chamber implant in the eye. A method of preparing such a minus power anterior chamber ocular implant comprises first exposing an uncoated implant to a plasma to generate a plasma-treated implant having a surface containing amines, carboxylic acids, active free radicals or passive free radicals, and thereafter bonding the medicament to the plasma-treated implant surface. A method of treating myopia comprises surgically implanting and anchoring the implant in the phakic eye to compensate for refractive errors.

