

Title (en)  
MULTIFOCAL ASPHERIC LENS

Title (de)  
MILTIFOKALE ASPHERISCHE LINSE

Title (fr)  
LENTILLES MULTIFOCALES ASPHERIQUES

Publication  
**EP 1229876 A1 20020814 (EN)**

Application  
**EP 00979186 A 20001116**

Priority  
• US 0031554 W 20001116  
• US 44448099 A 19991119

Abstract (en)  
[origin: WO0135880A1] An optical surface in close proximity to a person's pupil for correcting presbyopia, a method for obtaining that optical surface, and a laser surgery system to carry out the method are provided. The optical surface includes a first vision area, a second vision area surrounding the first area, and a third vision area surrounding the second vision area, the first vision area having a first substantially single power, the second vision area having a range of powers, the third vision area having a second substantially single power distinct from the first single power, at least one of the first, second and third vision areas having an aspheric surface, and the other areas having spherical surfaces. The method includes reshaping the cornea to obtain this optical surface. The cornea may be reshaped on the anterior or an underlying surface by ablation or collagen shrinkage, wherein the ablation is performed by applying an excimer laser, surgical laser, water cutting, fluid cutting, liquid cutting or gas cutting technique. The method also includes obtaining this optical surface by placing a contact lens having the desired optical characteristics on the cornea. The laser surgery system includes a laser beam generator and a laser beam controller to regulate the beam striking the cornea to remove a selected volume of corneal tissue from a region in an optical zone of the cornea with the ablative radiation, thereby forming a reprofiled region which has a first vision area, a second vision area surrounding the first area, and a third vision area surrounding the second vision area.

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**A61F 9/008**

IPC 8 full level  
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Citation (search report)  
See references of WO 0135880A1

Cited by  
US10534198B2; US11333903B2; US9759930B2; US10520754B2; US11320672B2; US10203522B2; US10209535B2; US10466507B2; US10838235B2; US10948743B2; US11644688B2; US11809024B2

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