

rior chamber, or if applicable into the posterior chamber.

If the stepping of the lens rings 12 is selected such that the individual ring zones of the Fresnel lens lie below the focussing capability of the eye, they are no longer perceived as rings and therefore act in the same way as a lens with a continuously curved surface.

It is advantageous to provide openings 17 in the support elements 14, through which fluid from the chambers can pass and which facilitate the folding of the lens.

I claim:

1. A one-piece implantation lens for use as a replacement for a natural lens which has been surgically, in particular extracapsularly, removed from the eye of a living being of a higher order, comprising

(a) a central lens body consisting of a homogenous, crystal-clear flexible plastic material with a specific gravity of between 1.01 and 1.08 and resistant to high temperatures,

said lens body being delimited, as considered in the implanted position of the lens, by respective front and back major surfaces at least one of which has a configuration of a Fresnel lens having a circular central portion and at least one annular portion immediately surrounding said central portion, said central portion being offset from said annular portion into said lens body to reduce the thickness of said lens body and facilitate folding thereof during the implantation of the lens into the eye, and said major surfaces being so configured that said lens body has light-collecting properties and the light passing through both said central portion and said annular portion is focused into the same focal point, and

(b) holding means including thinwalled, flat supporting elements arranged on the periphery of said lens body and extending radially outwardly therefrom for fixing said lens body in place upon implantation,

said holding means having an outer edge lying on a circular arc around the middle point of said lens body.

2. The implantation lens according to claim 1, wherein said one major surface is said front major surface of said central lens body.

3. The implantation lens according to claim 1, wherein said one major surface is said back major surface of said central lens body.

4. The implantation lens according to claim 1, wherein the other of said major surfaces of said lens body is planar.

5. The implantation lens according to claim 1, wherein the other of said major surfaces of said lens body is convex.

6. The implantation lens according to claim 1, wherein said central portion of said one major surface of said lens body is planar.

7. The implantation lens according to claim 1, wherein said central portion of said one major surface of said lens body is convex.

8. The implantation lens according to claim 1, wherein said support elements are inclined relative to said lens body.

9. The implantation lens according to claim 1, wherein said support elements include an upper support element and a lower support element which has a wider peripheral contact and support surface than said upper support element.

10. The implantation lens according to claim 1, wherein said support elements include an upper support element and a lower support element; and wherein at least said lower support element is provided with a peripheral bulge.

11. The implantation lens according to claim 10, wherein said peripheral bulge includes at least one notch.

12. The implantation lens according to claim 10, wherein said support elements include at least one opening.

13. The implantation lens according to claim 1, wherein said specific gravity of said material of said lens body is approximately 1.02.

14. A one-piece implantation lens for use as a replacement for a natural lens which has been surgically, in particular extracapsularly, removed from the eye of a living being of a higher order, comprising

a central lens body consisting of a homogenous, crystal-clear flexible plastic material with a specific gravity of between 1.01 and 1.08 and resistant to high temperatures, said lens body being delimited, as considered in the implanted position of the lens, by respective front and back major surfaces which are so configured that said lens body has light-collecting properties, with said front major surface having a configuration ranging from planar to slightly convex and said back major surface having a configuration of a Fresnel lens with a circular central portion and at least one annular portion immediately surrounding and backwardly offset from said central portion to reduce the thickness of said lens body and facilitate folding thereof during implantation of the lens into the eye, and said major surfaces being so configured that said lens body has light collecting properties and light passing through both said central portion and said annular portion is focused into the same focal point; and holding means including thin-walled, flat supporting elements arranged on the periphery of said lens body and extending radially outwardly therefrom for fixing said lens body in place upon implantation, said holding means having an outer edge lying on a circular arc around the middle point of said lens body.

15. The implantation lens according to claim 14, wherein said back surface of said lens body further has an additional annular portion immediately surrounding and backwardly spaced from said one annular portion.

16. The implantation lens according to claim 15, wherein said back surface of said lens body further has a further annular portion immediately surrounding and backwardly spaced from said additional annular portion.

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