[0006] In some embodiments, the optical lens includes an optical zone, and the optical zone includes a relax zone, a distance zone, and a defocus zone. The distance zone surrounds the relax zone. The defocus zone surrounds the distance zone and the relax zone. The diopter of the relax zone reduces along a direction from a center of the optical zone to an edge of the optical zone.

[0007] In some embodiments, an add power of the relax zone is in a range from +0.25D to +1.00D.

[0008] In some embodiments, a diopter of the distance zone is a constant value.

[0009] In some embodiments, a diopter of the distance zone increases along a direction from the relax zone to the edge of the optical zone.

[0010] In some embodiments, a diopter of the defocus zone increases along a direction from the distance zone to the edge of the optical zone.

[0011] In some embodiments, the optical zone further includes an enhance zone surrounding the defocus zone.

[0012] In some embodiments, a diopter of the enhance zone increases along a direction from an edge between the defocus zone and the enhance zone to the edge of the optical zone.

[0013] In some embodiments, a diopter of the enhance zone reduces along a direction from an edge between the defocus zone and the enhance zone to the edge of the optical zone.

[0014] In some embodiments, an absolute value of a diopter variation of the enhance zone is greater than an absolute value of a diopter variation of the

Fig. 2, and the difference is that the diopter of the defocus zone 130a increases from the distance zone 120a to the defocus zone 130a. In other words, the diopter variation between the distance zone 120a and the defocus zone 130a is gradual. That is, the diopter variation is smoother. As such, a blur or a ghost image caused by obvious diopter variation can be reduced and a clear vision can be provided for the users.

[0044] Fig. 5 is a graph of relative optical power with respect to lens radius for the optical zones of the contact lens of another embodiment of the present disclosure. The present embodiment is substantially the same as the embodiment shown in Fig. 2, and the difference is that the diopter of the enhance zone 140a increases along a direction from the defocus zone 130 to the edge 142 of the optical zone OZ. The slopes corresponding to the diopter of the enhance zone 140a and the diopter of the defocus zone 130 have the same sign, and the slope corresponding to the diopter of the enhance zone 140 is greater than the slope corresponding to the diopter of the defocus zone 130 obviously.

[0045] Fig. 6 is a diagrammatic sectional elevation of a human eye fitted with the multi-zone contact lens of another embodiment (Fig.5) showing the focal plane for the central and peripheral retina generated by the zone of the lens. The virtual image 230 formed in the defocus zone 130 and the virtual image 240a formed in the enhance zone 140a are indicated by dashed lines. As described above, the human brain can hardly recognize or process the virtual image 240a in the enhance zone 140, and therefore such design can enhance focusing of the images in the defocus zone 130 and the distance zone 120. As a result, with such difference between the diopter variations of the defocus zone 130 and the

enhance zone 140a, image disturbance can be eliminated to improve image focusing in the distance zone 120 and the defocus zone 130, and the ability of myopia correction and defocusing are improved.

[0046] Fig. 7 is a graph of relative optical power with respect to lens radius for the optical zones of the contact lens of another embodiment of the present disclosure. The present embodiment is substantially the same as the embodiment shown in Fig. 2, and the difference is that the diopter of the enhance zone 140b is reciprocate in an interval. For example, the diopter of the enhance zone 140b increases and decreases repeatedly in an interval from 1.0D to 4.0D. Therefore, such quick variation of the diopter in the enhance zone 140b make it difficult to form image, and the human brain can hardly recognize or process the virtual image in the enhance zone 140b. As such, with such difference between the diopter variations of the defocus zone 130 and the enhance zone 140b, image focusing in the defocus zone 130 and the distance zone 120 is improved and the ability of myopia correction and defocusing are improved.

[0047] Fig. 8A is a top view of an astigmatic lens 400 according to one embodiment of the present disclosure. The astigmatic lens 400 includes an astigmatism optical zone 410 and an astigmatism stability thick zone 420. The astigmatism stability thick zone 420 of the present disclosure is positioned at the bottom of the lens. Such design is the prism-ballast type astigmatic lens 400.

[0048] Fig. 8B is a top view of an astigmatic lens 400a according to another embodiment of the present disclosure. The astigmatic lens 400a includes an astigmatism optical zone 410a and an astigmatism stability thick zone 420a. Two astigmatism stability thick zones 420a are present respectively at the left

WHAT IS CLAIMED IS:

1. An optical lens, applied in myopia correction and slowing down a prescription increasing, wherein the optical lens includes an optical zone, and the optical zone comprises:

a relax zone;

a distance zone surrounding the relax zone; and

a defocus zone surrounding the distance zone and the relax zone, wherein a diopter of the relax zone reduces along a direction from a center of the optical zone to an edge of the optical zone; and

an enhance zone surrounding the defocus zone, wherein a range of the enhance zone is from radius of 3.5 mm to radius of 4 mm, and an absolute value of a diopter variation of the enhance zone is greater than an absolute value of a diopter variation of the defocus zone, wherein the diopter variation is a ratio of the diopter divided by a lens radius.

2. The optical lens of claim 1, wherein an add power of the relax zone is in a range from +0.25D to +1.00D.

3. The optical lens of claim 1, wherein a diopter of the distance zone is a constant value.

4. The optical lens of claim 1, wherein a diopter of the distance zone increases along a direction from the relax zone to the edge of the optical zone.

5. The optical lens of claim 1, wherein a diopter of the defocus zone increases along a direction from the distance zone to the edge of the optical zone.

6. The optical lens of claim 1, wherein a diopter of the enhance zone increases along a direction from an edge between the defocus zone and the enhance zone to the edge of the optical zone.

7. The optical lens of claim 1, wherein a diopter of the enhance zone reduces from an edge between the defocus zone and the enhance zone to the edge of the optical zone.

8. The optical lens of claim 1, wherein a diopter of the enhance zone is reciprocate in an interval.

9. The optical lens of claim 1, wherein the optical lens is a hard contact lens or a soft contact lens.

10. The optical lens of claim 1, wherein a material of the optical lens includes HEMA hydrogel or silicone hydrogel.

11. The optical lens of claim 10, wherein the optical lens is configured to be stored in a lens preservation solution, the lens preservation solution includes a mydriatic agent with low concentration, and the mydriatic agent is configured to relax a ciliary muscle and to slow down a prescription increasing.

12. The optical lens of claim 1, wherein the optical lens is an anti-blue light lens.

13. The optical lens of claim 1, wherein the optical lens includes a cylinder power and a cylinder axis, and the optical lens is configured to correct astigmatism.