CLAIMS

What is claimed is:

1. An ophthalmic lens comprising:

an optical zone portion comprising multiple voxels of polymerized crosslinkable material comprising a photoabsorptive component, wherein the optical zone portion comprises a first area comprising a first index of refraction and a second area comprising a second index of refraction; and

a second portion comprising a layered volume of crosslinkable material polymerized beyond a gel point of the crosslinkable material.

2. The ophthalmic lens of claim 1 additionally comprising a third portion comprising one or more additional layered volumes of crosslinkable material.

3. The ophthalmic lens of claim 1 wherein the layered volume of crosslinkable material comprises a crosslink pattern other than voxel by voxel.

4. The ophthalmic lens of claim 1 wherein the first portion additionally comprises a photoabsorptive component.

5. The ophthalmic lens of claim 1 wherein the second portion additionally comprises silicone.

6. The ophthalmic lens of claim 4 wherein the first portion comprises a first optical surface.

7. The ophthalmic lens of claim 6 wherein the second portion comprises a second optical surface.

8. The ophthalmic lens of claim 3 wherein the first portion is formed via exposure of a reactive mixture to multiple rays of actinic radiation, wherein each ray of actinic radiation originates from a source and each ray is reflected towards a predetermined portion of the crosslinkable material for a predetermined period of time.

9. The ophthalmic lens of claim 8 wherein each ray of actinic radiation reflected towards a predetermined portion of the crosslinkable material for a predetermined period of time comprises a predetermined wavelength.

10. The ophthalmic lens of claim 9 wherein the second portion is formed via exposure of a reactive mixture to multiple rays of actinic radiation originating from multiple points.

11. The ophthalmic lens of claim 8 additionally comprising one or more areas of depression formed by the voxels of polymerized crosslinkable material.

12. The ophthalmic lens of claim 8 additionally comprising one or more elevated areas formed by the voxels of polymerized crosslinkable material.

13. The ophthalmic lens of claim 11 wherein the layered volume of crosslinkable material polymerized beyond the gel point is conformal to the areas of depression formed by the voxels of polymerized crosslinkable material.

14. The ophthalmic lens of claim 11 wherein the layered volume of crosslinkable material polymerized beyond the gel point is non-conformal to the areas of depression formed by the voxels of polymerized crosslinkable material.

15. The ophthalmic lens of claim 1 wherein each voxel comprises a first end and a second end and the second portion comprising a layered volume of crosslinkable material polymerized above the gel point essentially covers each second end.

16. The ophthalmic lens of claim 6, wherein the first portion comprises a non-contiguous pattern formed along a surface of a substrate.

17. The ophthalmic lens of claim 6 wherein the perimeter of the lens essentially comprises a non-circular shape.

18. The ophthalmic lens of claim 6 wherein the perimeter of the lens essentially comprises an oval shape.

19. The ophthalmic lens of claim 6 wherein the lens comprises a toric shape.

CLAIMS

What is claimed is:

1. An ophthalmic lens comprising:

an optical zone portion comprising multiple voxels of polymerized crosslinkable material comprising a photoabsorptive component, wherein the optical zone portion comprises a first area comprising a first index of refraction and a second area comprising a second index of refraction; and

a second portion comprising a layered volume of crosslinkable material polymerized beyond a gel point of the crosslinkable material.

2. The ophthalmic lens of claim 1 additionally comprising a third portion comprising one or more additional layered volumes of crosslinkable material.

3. The ophthalmic lens of claim 1 wherein the layered volume of crosslinkable material comprises a crosslink pattern other than voxel by voxel.

4. The ophthalmic lens of claim 1 wherein the first portion additionally comprises a photoabsorptive component.

5. The ophthalmic lens of claim 1 wherein the second portion additionally comprises silicone.

6. The ophthalmic lens of claim 4 wherein the first portion comprises a first optical surface.

7. The ophthalmic lens of claim 6 wherein the second portion comprises a second optical surface.

8. The ophthalmic lens of claim 3 wherein the first portion is formed via exposure of a reactive mixture to multiple rays of actinic radiation, wherein each ray of actinic radiation originates from a source and each ray is reflected towards a predetermined portion of the crosslinkable material for a predetermined period of time.

9. The ophthalmic lens of claim 8 wherein each ray of actinic radiation reflected towards a predetermined portion of the crosslinkable material for a predetermined period of time comprises a predetermined wavelength.

10. The ophthalmic lens of claim 9 wherein the second portion is formed via exposure of a reactive mixture to multiple rays of actinic radiation originating from multiple points.

11. The ophthalmic lens of claim 8 additionally comprising one or more areas of depression formed by the voxels of polymerized crosslinkable material.

12. The ophthalmic lens of claim 8 additionally comprising one or more elevated areas formed by the voxels of polymerized crosslinkable material.

13. The ophthalmic lens of claim 11 wherein the layered volume of crosslinkable material polymerized beyond the gel point is conformal to the areas of depression formed by the voxels of polymerized crosslinkable material.

14. The ophthalmic lens of claim 11 wherein the layered volume of crosslinkable material polymerized beyond the gel point is non-conformal to the areas of depression formed by the voxels of polymerized crosslinkable material.

15. The ophthalmic lens of claim 1 wherein each voxel comprises a first end and a second end and the second portion comprising a layered volume of

crosslinkable material polymerized above the gel point essentially covers each second end.

16. The ophthalmic lens of claim 6, wherein the first portion comprises a non-contiguous pattern formed along a surface of a substrate.

17. The ophthalmic lens of claim 6 wherein the perimeter of the lens essentially comprises a non-circular shape.

18. The ophthalmic lens of claim 6 wherein the perimeter of the lens essentially comprises an oval shape.

19. The ophthalmic lens of claim 6 wherein the lens comprises a toric shape.