CLAIMS

1. A pair of eyeglasses, comprising:

a first ophthalmic lens mounted in eyeglass frames, the first ophthalmic lens comprising a first region and a second region surrounding the first region, the second region of the first ophthalmic lens comprising a plurality of spaced-apart light scattering centers and the first region of the first ophthalmic lens being free from light scattering centers; and

a second ophthalmic lens mounted in the eyeglass frames, the second ophthalmic lens comprising a first region and a second region surrounding the first region, the second region of the second ophthalmic lens comprising a plurality of spaced-apart light scattering centers and the first region of the second ophthalmic lens being free from light scattering centers,

wherein, the scattering centers of the first and second ophthalmic lenses have a maximum dimension in a range from 0.1 mm to 0.5 mm and are spaced apart by 0.8 mm or less, and for incident light transmitted by each ophthalmic lens, the ophthalmic lens scatters light incident on the light scattering centers.

2. The eyeglasses of claim 1, wherein each of the scattering centers has a maximum dimension of 0.2 mm or less.

3. The eyeglasses of claim 1, wherein each of the scattering centers is substantially the same size.

4. The eyeglasses of claim 1, wherein the scattering centers are spaced apart by 0.6 mm or less.

5. The eyeglasses of claim 1, wherein the scattering centers are spaced apart by 0.5 mm or less.

6. The eyeglasses of claim 1, wherein the scattering centers are spaced apart by 0.4 mm or less.

7. The eyeglasses of claim 1, wherein the scattering centers are spaced apart by 0.35 mm or less.

8. The eyeglasses of claim 1, wherein the scattering centers are arranged on a square grid.

9. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 2 mm or more.

10. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 3 mm or more.

11. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 4 mm or more.

12. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 5 mm or more.

13. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 6 mm or more.

14. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 7 mm or more.

15. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses have a maximum dimension of 8 mm or more.

16. The eyeglasses of claim 1, wherein the first regions of the first and second ophthalmic lenses are substantially circular.

17. The eyeglasses of claim 1, wherein the scattering centers are protrusions on a surface of the first and second ophthalmic lens.

18. The eyeglasses of claim 17, wherein the protrusions are formed from a transparent material.

19. The eyeglasses of claim 18, wherein the transparent material is clear.

20. The eyeglasses of claim 18, wherein the transparent material is tinted.

21. The eyeglasses of claim 18, wherein the transparent material has substantially the same refractive index as a lens material.

22. The eyeglasses of claim 17, wherein the protrusions are substantially spherical.

23. The eyeglasses of claim 1, wherein the light scattering centers are recesses on a surface of the corresponding lens.

24. The eyeglasses of claim 1, wherein the light scattering centers are inclusions between opposing surfaces of each lens.

25. The eyeglasses of claim 1, wherein the lenses are clear lenses.

26. The eyeglasses of claim 1, wherein the eyeglasses are tinted eyeglasses.

27. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 30% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

28. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 35% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

29. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 40% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

30. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 45% compared

to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

31. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 50% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

32. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 55% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

33. The eyeglasses of claim 1, wherein the plurality of scattering centers reduces an image contrast of an object viewed through the plurality of scattering centers by at least 60% compared to an image contrast of the object viewed through the first regions of the first and second ophthalmic lenses.

34. The eyeglasses of claim 1, wherein the first and second ophthalmic lenses having optical power to correct a wearer's on-axis vision to 20/20 or better through the first regions of the first and second ophthalmic lenses, and, for at least a portion of the wearer's peripheral vision through the scattering centers, the first and second ophthalmic lenses correct the wearer's vision to 20/25 or better.

35. A method of making the eyeglasses of claim 1, comprising:

depositing discrete portions of a material on a surface of the first and second ophthalmic lens corresponding to the second region of the first and second ophthalmic lens; and

curing the deposited material to provide protrusions on the first and second ophthalmic lens surface forming the light scattering centers.

36. The method of claim 35, wherein the material is deposited using an inkjet printer.

37. The method of claim 35, wherein the deposited material is cured using radiation.

38. The method of claim 37, wherein the radiation comprises ultraviolet radiation.

39. A pair of eyeglasses customized for a wearer, comprising:

a first ophthalmic lens mounted in eyeglass frames, the first ophthalmic lens comprising a first region and a second region surrounding the first region, the second region of the first ophthalmic lens comprising a plurality of spaced-apart light scattering centers and the first region of the first ophthalmic lens being free from light scattering centers; and

a second ophthalmic lens mounted in the eyeglass frames, the second ophthalmic lens comprising a first region and a second region surrounding the first region, the second region of the second ophthalmic lens comprising a plurality of spaced-apart light scattering centers and the first region of the second ophthalmic lens being free from light scattering centers,

wherein, the scattering centers of the first and second ophthalmic lenses have a maximum dimension in a range from 0.1 mm to 0.5 mm and are spaced apart by 0.8 mm or less, and for incident light transmitted by each ophthalmic lens, the ophthalmic lens scatters light incident on the light scattering centers,

wherein the first and second ophthalmic lenses have optical power to correct a wearer's on-axis vision to 20/20 or better,

wherein the plurality of scattering centers comprising an array of scattering centers arranged so that, for at least a portion of the wearer's peripheral vision, the first and second ophthalmic lenses correct the wearer's vision to 20/25 or better and reduce an image contrast by at least 30% compared to on-axis image contrast.

40. The eyeglasses of claim 1, wherein the scattering centers are arranged in a semi-random or random pattern.

41. The eyeglasses of claim 1, wherein the scattering centers are arranged on a non-regular array.

42. The method of claim 35, wherein the material is arranged in a semi-random or random pattern.

43. The method of claim 35, wherein the material is arranged on a non-regular array.

44. The eyeglasses of claim 39, wherein the scattering centers are arranged in a semi-random or random pattern.

45. The eyeglasses of claim 39, wherein the scattering centers are arranged on a non-regular array.