CLAIMS

1. A method for creating eyeglass lenses, the method comprising:

allowing a subject to wear a first lens to be evaluated;

inducing a periodic brain activity by allowing the subject to view, through the first lens, a changing visual stimulus object that induces the periodic brain activity through the first lens;

obtaining, via a device, the periodic brain activity as a waveform of an electrical signal during a total measurement time;

calculating one or more among an amplitude, a power value, or a phase in a frequency that is an inverse number of a period of the periodic brain activity based on the waveform;

calculating one or more of an amplitude, a power value, or a phase in a frequency that is an inverse number of a period of the periodic brain activity based on the waveform;

evaluating an average visual perception or a time-dependent change in visual perception through the first lens based on the calculated one or more of the amplitude, the power value, or the phase in the frequency during an analysis window having a duration less than the total measurement time; and

preparing a custom lens for the subject based on the evaluated average visual perception or time-dependent change in visual perception.

2. The method according to claim 1, wherein a fixation point at which the subject is allowed to gaze is presented to the subject when the subject is allowed to view the visual stimulus object through the first lens.

3. The method according to claim 2, wherein the fixation point is displayed so as to be movable, and the subject is allowed to view the fixation point while the subject is moving a sight line.

4. The method according to claim 1, wherein the visual stimulus object is set to be movable.

5. The method according to claim 1, wherein the visual stimulus object is viewed by both eyes of the subject.

6. The method according to claim 5, wherein one or more of the amplitude, the power value, or the phase that have been obtained as a result of viewing the visual stimulus object by both eyes of the subject are evaluated by comparison with one or more of a respective amplitude, power value, or phase that have been obtained as a result of viewing the visual stimulus object by one eye of the subject.

7. The method according to claim 5, wherein one or more of the amplitude, the power value, or the phase that have been obtained as a result of viewing the visual stimulus object by both eyes of the subject are evaluated by comparison with one or more of a respective amplitude, power value, or phase that have been obtained as a result of viewing the visual stimulus object by left and right eyes of the subject through second and third lenses having mutually different conditions.

8. The method according to claim 5, wherein a balance of visual perception between both eyes of the subject is evaluated by the one or more of the amplitude, power value, or phase that have been obtained as a result of viewing the visual stimulus object by both eyes of the subject.

9. The method according to claim 1, wherein the visual stimulus object is viewed by a dominant eye of the subject, and the one or more of the amplitude, power value, or phase that have been obtained as a result of viewing the visual stimulus object by the dominant eye of the subject are evaluated by comparison with one or more of a respective amplitude, power value, or phase that have been obtained as a result of viewing the visual stimulus object by a non-dominant eye of the subject.

10. The method according to claim 1, wherein the average visual perception is evaluated, and the custom lens is prepared based on the evaluated average visual perception.

11. The method according to claim 1, wherein a plurality of lenses including the first lens are evaluated, each lens of the plurality of lenses having different lens characteristics relative to a remainder of the plurality of lenses.

12. The method according claim 1, wherein the visual stimulus object comprises one line segment or a plurality of line segments, and evaluating the average visual perception includes evaluating a visual perception that changes depending on an axial direction of astigmatism.

13. The method according to claim 1, wherein the visual stimulus object comprises one circle or a plurality of circles, and a size of an astigmatic component is evaluated without evaluating a visual perception that changes depending on an axial direction of astigmatism.

14. The method according to claim 12, wherein the visual perception that changes depending on the axial direction of astigmatism is evaluated by alternately showing a first figure and a second figure that are components of the visual stimulus object, the first figure comprising one line segment or a plurality of line segments by which directionality with respect to a first direction is perceivable by the subject, the second figure comprising one line segment or a plurality of line segments by which directionality with respect to the first direction is perceivable by the subject and by which directionality in a second direction differing from the directionality of the first figure is perceivable by the subject.

15. The method according to claim 13, wherein the size of the astigmatic component is evaluated without evaluating visual perception that changes depending on the axial direction of astigmatism by alternately showing a first figure and a second figure that are components of the visual stimulus object, the first figure comprising one circle or a first plurality of circles by which directionality is unperceivable by the subject, the second figure comprising one circle or a second plurality of circles by which directionality different in arrangement from the directionality of the first figure is unperceivable by the subject.

16. The method according to claim 1, wherein the visual stimulus object is presented at a secondary position of an eye of the subject or at a tertiary position of the eye of the subject.

17. The method according to claim 1, wherein the visual stimulus object is continuously displayed without providing a period of time during which the visual stimulus object is not displayed.

18. The method according to claim 1, wherein the visual stimulus object is discontinuously displayed by providing a period of time during which the visual stimulus object is not displayed.

19. The method according to claim 1, wherein the visual stimulus object comprises a plurality of and two or more kinds of visual stimulus objects, and the plurality of visual stimulus objects are equal in brightness to each other.

20. The method according to claim 1, wherein the frequency that is the inverse number of the period of the periodic brain activity is 4 to 60 Hz.

21. The method according to claim 1, wherein the periodic brain activity is a visual evoked magnetic field in a steady state.

22. The method according to claim 1, wherein the periodic brain activity is a visual evoked potential in a steady state.

23. The method according to claim 1, wherein the method includes evaluating an average visual perception for a plurality of lenses including the first lens and a second lens different from the first lens, wherein the first lens is a progressive power lens, and wherein preparing the custom lens comprises:

a first step of obtaining a difference in an optical performance value between the progressive power lens and the second lens, the optical performance value being based on the one or more of the amplitude, power value, or phase in frequency;

a second step of calculating a lens shape with a corrected optical performance value as a target value so as to set a reference lens to be evaluated, the corrected optical performance value being based on the obtained difference in optical performance value between the progressive power lens and the second lens;

a third step of obtaining a difference in an optical performance value between the reference lens and the progressive power lens; and

a fourth step of calculating a new lens shape with a new corrected optical performance value based on the obtained difference in optical performance value between the reference lens and the progressive power lens, the new corrected optical performance value being a new target value so as to reset the reference lens to be evaluated; and

wherein the third step and the fourth step are repeated at least once to reduce the difference between the obtained difference in optical performance value between the reference lens and the progressive power lens, the reference lens being the custom lens.

24. The method according to claim 1, wherein the time dependent change in visual perception is evaluated by calculating the one or more of an amplitude, power value, or phase during two or more analysis windows each having a duration less than the total measurement time, and the custom lens is prepared based on the time dependent change in visual

perception.

25. The method according to claim 23, wherein the third step includes obtaining a difference in an optical performance value among the reference lens, the progressive power lens, and at least one additional lens, and the new corrected optical performance value of the fourth step is based on the obtained difference among the reference lens, the progressive power lens, and the at least one additional lens.