WE CLAIM:

1. A device comprising:

a laser device configured to direct a laser beam with laser energy through an outer portion of an eye towards a target portion of the eye; and

a control computer configured to:

receive an optical density measurement of the outer portion;

determine the laser energy according to the optical density measurement; and

instruct the laser device to direct the laser beam with the laser energy through the outer portion of the eye towards the target portion of the eye.

2. The device of Claim 1:

the optical density measurement comprising one or more optical density values for one or more locations of the outer portion of the eye, each optical density value indicating an optical density at a location of the outer portion of the eye.

3. The device of Claim 1, the determining the laser energy further comprising:

determining a laser energy adjustment value according to the optical density measurement; and

adjusting the laser energy according to the laser energy adjustment value.

4. The device of Claim 1:

the optical density measurement comprising one or more optical density values for one or more locations of the outer portion of the eye; and

the determining the laser energy further comprising:

determining the laser energy to be applied at a location according to the optical density value at the location.

5. The device of Claim 1, the determining the laser energy further comprising:

determining the laser energy according to the optical density measurement and a corneal depth.

6. The device of Claim 1, the determining the laser energy further comprising:

accessing a data structure that associates a plurality of optical density values with a plurality of laser energy adjustment values; and

identifying a laser adjustment value associated with an optical density value of the optical density measurement.

7. The device of Claim 1, the receiving an optical density measurement further comprising:

receiving the optical density measurement from an image capture system.

8. The device of Claim 1:

the outer portion comprising an outer layer of a cornea; and

the target portion comprising an inner layer of the cornea.

9. The device of Claim 1, the target portion comprising a crystalline lens.

10. A method comprising:

receiving, at a control computer, an optical density measurement of an outer portion of an eye;

determining, by the control computer, laser energy of a laser beam according to the optical density measurement; and

instructing, by the control computer, a laser device to direct the laser beam with the laser energy through the outer portion of the eye towards a target portion of the eye.

11. The method of Claim 10:

the optical density measurement comprising one or more optical density values for one or more locations of the outer portion of the eye, each optical density value indicating an optical density at a location of the outer portion of the eye.

12. The method of Claim 10, the determining the laser energy further comprising:

determining a laser energy adjustment value according to the optical density measurement; and

adjusting the laser energy according to the laser energy adjustment value.

13. The method of Claim 10:

the optical density measurement comprising one or more optical density values for one or more locations of the outer portion of the eye; and

the determining the laser energy further comprising:

determining the laser energy to be applied at a location according to the optical density value at the location.

14. The method of Claim 10, the determining the laser energy further comprising:

determining the laser energy according to the optical density measurement and a corneal depth.

15. The method of Claim 10, the determining the laser energy further comprising:

accessing a data structure that associates a plurality of optical density values with a plurality of laser energy adjustment values; and

identifying a laser adjustment value associated with an optical density value of the optical density measurement.

16. The method of Claim 10, the receiving an optical density measurement further comprising:

receiving the optical density measurement from an image capture system.

Dated this 17th day of July 2014.

ABHISHEK SEN
of S. MAJUMDAR & CO.
Applicants' Agent