SYSTEM AND PROCESS FOR ADJUSTING TREATMENT PARAMETERS FOR RETINA PHOTOTHERAPY BASED ON RPE MELANIN LEVELS

ABSTRACT

A system and process for safely providing retinal phototherapy includes generating first and second light beams of a different wavelength. The first and second light beams are applied to a retinal pigment epithelium (RPE) (24) and choroid (26) of an eye (10). The amount of light reflected from the eye from the first light beam and the second light beam is measured, such as using a reflectometer (110). A level or concentration of the melanin within the eye is calculated using the measured amount of light reflected from the eye from the first and second light beams. When the content or density of melanin in the RPE exceeds a predetermined amount, one or more treatment parameters of the retinal phototherapy is adjusted.

(FIG. 3)