

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent:

Patent Number: US 10,639,495
Issued: May 5, 2020
Title of Invention: Photobiomodulation Therapy Systems and Methods
Inventors: Scott Nelson and Justin Strahan
Assignee: Joovv, Inc.
Atty Docket No.: 210407-05RE

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REQUEST FOR *EX PARTE* REEXAMINATION

Dear Sir or Madam:

The undersigned, as representative of the real party in interest (“Requestor”), respectfully requests *ex parte* reexamination of claims 1-20 of U.S. Patent No. 10,639,495 (hereinafter “Nelson”), issued May 5, 2020. Prior art cited in this request was not considered or applied by the Examiner during prosecution and renders all issued claims of Nelson unpatentable under 35 U.S.C. §102 or 35 U.S.C. §103.

Per 37 CFR 1.510b and MPEP §2214, the documents listed in the following table are submitted herewith. The required fee was paid through EFS web.

Respectfully submitted,

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I. IDENTIFICATION OF CLAIMS THAT SHOULD BE REEXAMINED

Requestor respectfully requests reexamination of claims 1-20 of Nelson under 35 USC §§ 301-307 and 37 CFR § 1.510 *et seq.*, and issuance of a reexamination certificate canceling these claims.

II. PROSECUTION HISTORY OF NELSON

Nelson filed its Continuation application on September 26, 2019, as application 16/584,784 claiming priority to Nonprovisional application 16/227,289 filed on December 20, 2018, now U.S. Patent No. 10,478,635.

The application was promptly examined on December 6, 2019, where Claims 12-20 were rejected under 35 USC § 102, Claims 1-7, 9-11 were rejected under 35 USC §103, and Claims 1-3, 5, 6, 12, 13, 15 and 20 were rejected for statutory type double patenting under 35 U.S.C. § 101 in view of U.S. Patent No. 10,478,635. Nelson responded on January 10, 2020, and on March 11, 2020, a Notice of Allowance was issued. The Notice of Allowability does not provide any reasoning why the application was allowed. On April 15, 2020, the USPTO issued the Nelson patent.

III. PRIOR ART APPLIED HEREIN **AND** SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY OF EVERY CLAIM OF NELSON

1. US Publication US2020/0269065 (“Broeng”) filed February 14, 2018, published August 27, 2020.

Broeng discloses a light therapy system that uses LED’s to biostimulate tissue using visible light.

A reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable, as the disclosure of Carroll presents a new, non-cumulative technological teaching that was not previously considered or discussed during the prosecution of Nelson.

The **substantial new question of patentability** is whether claims 1-20 of Nelson would have been anticipated or obvious in light of Broeng.

2. U.S. Publication No. 2015/0112411 (“Beckman”) filed on October 16, 2014, published on April 23, 2015.

Beckman discloses a phototherapy device including a number of select LED's for emitting a desired range or ranges of wavelengths of high intensity light for use in treatment.

A reasonable examiner would consider the teaching of Beckman to be important in deciding whether or not the claim is patentable, as the disclosure of Beckman presents a new, non-cumulative technological teaching that was not previously considered or discussed during the prosecution of Nelson.

The **substantial new question of patentability** is whether claims 1-20 of Nelson would have been anticipated or obvious in light of Beckman.

3. U.S. Publication No. 2006/0229689 ("Ferguson") filed on April 7, 2006, published on October 12, 2006.

Ferguson discloses a LED therapy device having at least a left and right LED panel that are detachably coupled to a pedestal.

Ferguson was cited in the listing of references by the examiner, but it was not directly asserted against Nelson in the Office Action. A reasonable examiner would consider the teachings of Ferguson, in combination with the other references such as Broeng, which were not cited in the prosecution of Nelson to be important in deciding whether or not the claims are patentable.

The **substantial new question of patentability** is whether claims 1-20 would have been obvious in light of Ferguson in combination with any of the newly cited references.

4. U.S. Patent No. 10,632,325 ("Lim") filed on November 23, 2015, issued April 28, 2020.

Lim discloses a portable non-invasive system, apparatus and method for performing light therapy or photobiomodulation upon brain tissues through the skull or nostrils of a living subject.

A reasonable examiner would consider the teaching of Lim to be important in deciding whether or not the claim is patentable, as the disclosure of Lim presents a new, non-cumulative technological teaching that was not previously considered or discussed during the prosecution of Nelson.

The **substantial new question of patentability** is whether claims 1-20 of Nelson would have been anticipated or obvious in light of Lim.

5. U.S. Publication No. 2019/0030359 (“Dijkstra”) filed on October 2, 2018, published on January 31, 2019.

Dijkstra discloses a light therapy device for providing therapeutic treatment to a user’s body.

A reasonable examiner would consider the teaching of Dijkstra to be important in deciding whether or not the claim is patentable, as the disclosure of Dijkstra presents a new, non-cumulative technological teaching that was not previously considered or discussed during the prosecution of Nelson.

The **substantial new question of patentability** is whether claims 1-20 of Nelson would have been anticipated or obvious in light of Dijkstra.

6. U.S. Patent No. 7,932,482 (“Norwood”) issued April 26, 2011.

Norwood discloses an electrically operated diffuser having a light emitting diode with a luminous intensity rating of at least about 5000 mcd and 20mA, and is positioned so as to shine through an active material received in the diffuser.

A reasonable examiner would consider the teaching of Norwood to be important in deciding whether or not the claim is patentable, as the disclosure of Norwood presents a new, non-cumulative technological teaching that was not previously considered or discussed during the prosecution of Nelson.

The **substantial new question of patentability** is whether claims 1-20 of Nelson would have been anticipated or obvious in light of Norwood.

IV. PROPOSED REJECTIONS OF THE CLAIMS OF THE NELSON PATENT and DETAILED EXPLANATION THEREOF

1. Obviousness Standard

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under **35 U.S.C. 103** are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

MPEP §2141.

2. Field of Art and Ordinary Skill in the Art

The field of art for Nelson is light therapy devices. Nelson at Abstract.

The prior art references cited in this request for re-examination include US patents, and US patent publications, in the field of light therapy devices. As each of these references are directed toward the same subject matter as Nelson, the combination of the references for teaching the elements specifically described below would have been obvious to a person of ordinary skill in the art. See MPEP §2141.03.

3. Claim 1 of Nelson

Claim 1 of Nelson recites in full:

1. A light therapy system, comprising:
a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,
wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and
a second light therapy device configured to communicate with the first light therapy device, the second light therapy device comprising a second housing, a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,
wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode, and
wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode, wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.

Ground 1: Claim 1 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

1. A light therapy system, comprising: 1a. a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,	<u>Broeng</u> at abstract teaches: “In certain embodiments a light therapy system (e.g., phototherapy device), such as for treatment of Alzheimer's disease, depression, dementia, short-term memory, or for improved learning, improved athletic performance or improved cognitive performance, is provided where the light system comprises a blue light source that operates at a frequency in the range from 20 to 50 Hz (preferably around 40 Hz), whereby the system enables retinal ganglion cells of a human to be exposed in order to stimulate brain waves (gamma oscillations in the human's brain).” <u>Broeng</u> at page 5, paragraph 0048 teaches: “The device of embodiment 48, wherein the orange/red light comprising said first light source, or the orange/red spectral component of said first light source, or the orange/red light emitted by a lamp has a maximum emission at about 600 nm or at about 650 nm.” <u>Broeng</u> at page 5, paragraphs 0068-0071 teach: “The device according to any one of embodiments 1-49, wherein: said second light source comprises or consists of a blue/green spectral component, an orange spectral component, and a red/far red spectral component; or said second light source comprises or consists of a green spectral component, and an orange/red spectral component.”
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1b. wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode,	<u>Broeng</u> at page 7, paragraph 0111 teaches: “The device according to any one of embodiments 1-85, wherein said first light source and said second light source are in different units or housings.” <u>Broeng</u> at page 11, paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at pages 15-16, paragraph 0235 teaches: “Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or
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1c. and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and	up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” <i>COMMENT-In this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead mode and a follow mode.</i> <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at pages 11-12, paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.” <i>In this reference, controller controls for one or more of on/off for phase, and phase will only decide the mode of operation of light therapy devices.</i>
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1d. a second light therapy device configured to communicate with the first light therapy device,	<u>Broeng</u> at page 19, paragraph 0269 teaches: “In certain embodiments the controller may be wirelessly interconnected with one or phototherapy device(s) for wireless transmission of control signals from the controller to the respective device(s). For example, the light controller and a phototherapy device may comprise an interface to a wired Local Area-Network (LAN) and/or to a wireless LAN (BlueTooth, WiFi), and/or a to a mobile telephone network, and/or to another Wide-Area-Network (WAN), such as the internet. In this way networks already present may be utilized for control of the phototherapy device.”
1e. the second light therapy device comprising a second housing,	<u>Broeng</u> at page 7, paragraph 0110 teaches: “The device according to any one of embodiments 1-85, wherein said first light source and said second light source are in different units or housings.”
1f. a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,	<u>Broeng</u> at page 7, paragraph 0110 teaches: “The device according to any one of embodiments 1-85, wherein said first light source and said second light source are in different units or housings.” <u>Broeng</u> at page 11, paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.” <u>Broeng</u> at page 5, paragraph 0068 teaches: “The device of embodiment 48, wherein the orange/red light comprising said first

1g. wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode,	light source, or the orange/red spectral component of said first light source, or the orange/red light emitted by a lamp has a maximum emission at about 600 nm or at about 650 nm.” <u>Broeng</u> at page 5, paragraph 0071 teaches: “The device according to any one of embodiments 1-49, wherein: said second light source comprises or consists of a blue/green spectral component, an orange spectral component, and a red/far red spectral component; or said second light source comprises or consists of a green spectral component, and an orange/red spectral component.” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at pages 15-16, paragraph 0235 teaches: “Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or
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1h. and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,	up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” (Refer: Page 15 - 16, Para 0235) <i>Comment: As noted above, in this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead mode and a follow mode.</i> <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at pages 11-12, paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.” <i>Comment: In this reference, controller controls for one or more of on/off for phase, and phase will only decide the mode of operation of light therapy devices.</i>
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1i. wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device,	<u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal form. Accordingly, there are periods where the light sources are emitting radiation at the same time, although at respective levels (at any given time) to produce a constant total illumination. In both examples, the total power emitted from the combination of light sources is substantially uniform over time. Hence, the experience by a human is constant white light illumination, but the white light is composed of two different light
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1j. and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.	sources of which one provides substantially more light, e.g., from 440 nm to 480 nm to the non-visual ganglion cells at the retina and therefore increased brain activity via stroboscopic light around 460 nm. It will be recognized that other wave forms for the illumination can be used. Such wave forms include, but are not limited to triangle, sawtooth, various non-linear waveforms, and the like.” <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject. In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal
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Broeng discloses each and every limitation of claim 1 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 1 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 1 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 1 should be reexamined and found to be unpatentable.

Ground 2: Claim 1 of Nelson should be rejected under 35 USC §103(a) as being obvious over Beckman in view of Broeng.

1. A light therapy system, comprising:	<u>Beckman</u> at paragraph 0031 teaches: “The present invention generally relates to compositions, methods and systems comprising high-power light-emitting diodes (LEDs) for use in human and/or
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1a. a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,	animal phototherapy applications. Phototherapy uses light of selected wavelengths to, for example, help repair damaged skin, improve health, alleviate pain, and accelerate the healing process. For example, the FDA has issued FDA Predicate Device 510(k) Clearance for: Medical Aesthetics (878.4810, GEX, OHS Wrinkles, Benign/Pigmented Lesions, PDT, Acne, etc.), K082586 (Lightwave), K062991 (GentleWave), K103415 (Tanda); Body Contouring/Cellulite (878.4810, OCI, NUV, ILY), 20 K082609 (Erchonia Zeron), K0101366 (ilipo, Utra); Androgenic Alopecia (890.5500, OAP), K122248 (igrow Hair, TheraDome); and Pain Relief (890.5500, ILY), K112494 (Varaya P C).” (Refer: Page 3, Para 0031) <u>Beckman</u> at paragraph 0017 teaches: “In accordance with one embodiment of the present disclosure, a portable high-powered light emitting diode photobiology device for treatment of biological tissues is contemplated. The device may include a plurality of light emitting diodes, including a first one having a first predetermined wavelength with a first emission axis, as well as a second one having a second predetermined wavelength with a second emission axis. Additionally, the device may have a plurality of optics including a first optic corresponding to the first one of the plurality of light emitting diodes that defines a first dispersion pattern of enhanced light intensity centered on the first emission axis. There may also be a second optic corresponding to the second one of the plurality of light emitting diodes that defines a second dispersion pattern of enhanced light intensity centered on the second emission axis.
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	The device may further include an optical face defined by a flat planar surface. The first one of the plurality of light emitting diodes may be positioned in a first tilted angular relationship relative to the flat planar surface of the optical face. The second one of the plurality of light emitting diodes may be positioned in a second tilted angular relationship relative to the flat planar surface of the optical face. The first emission axis and the second emission axis may intersect at a predefined distance away from the optical face and define a substantially overlapping emission region of the first dispersion pattern and the second dispersion pattern.” <u>Beckman</u> at paragraph 0054 teaches: “Referring now to FIG. 4, the first optic 172 and the second optic 182 are shown in cooperative arrangement with the ergonomic and elegantly functional design of housing 20. The first LED 170 and the second LED 180 are not directly visible in FIG. 4, but are indicated in their relative position centrally arranged within the first optic 172 and the second optic 182. Additional optics and associated LEDs are contemplated as being within the scope and breadth of the present disclosure.” <u>Beckman</u> at paragraph 0062 teaches: “One embodiment of the present disclosure is equipped with a green (525 nm) 3 watt LED with accompanying optic; an amber (590 nm) 3 watt LED with accompanying optic; a near infrared (850 nm) 3 watt LED with accompanying optic; and, a red (660 nm) 5 watt LED with or without optic. In another embodiment of the present disclosure, the device 10 is equipped with a green (525 nm) 1 watt LED with accompanying optic; an amber (590 nm)
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	1 watt LED with accompanying optic; a near infrared (850 nm) 1 watt LED with accompanying optic; and, a deep-red (660 nm) 5 watt LED with or without accompanying optic. In yet another embodiment of the present disclosure, a device is equipped with an amber (590 nm) 3 watt LED with accompanying optic; and a red (660 nm) 5 watt LED with or without accompanying optic. In another particular embodiment of the present disclosure, the device 10 is equipped with a deep red (660 nm) 5 watt LED with or without optic; and, an infrared (850 nm) 3 watt LED with accompanying optic. In a further embodiment of the present disclosure, the device 10 is equipped with a 415 nm LED and a red (660 nm) LED, each LED being rated from 1 to 10 watts and used with or without accompanying optics.” <u>Beckman</u> at paragraph 0077 teaches: “More particularly, the emission assembly 352 includes a first tilted lens housing 354 a and a second tilted lens housing 354 b. The tilted lens housings 354 are defined by a socket 356 receptive to a conical lens 358, which is understood to correspond to the aforementioned optics 172, 182 of the first embodiment. There is a first conical lens 358 a received within the socket 356 of the first tilted lens housing 354 a, and a second conical lens 358 b received within the socket 356 of the second tilted lens housing 354 b. The conical lens 358 may be secured to the tilted lens housing 354 in a variety of ways, including frictional retention, threaded engagement, by adhesive compounds, and so on. Both tilted lens housings 354 have an open apex end 360 and an opposed open base end 362. The open apex end 360 receives the LED 170, which, as described above, includes the diode element 406 and the substrate 408.
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1b. wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode,	There are separate heat sinks 500 a, 500 b, corresponding to the first LED 170 and the second LED 180, respectively.” (Refer: Page 8, Para 0077) <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at pages 15-16, paragraph 0235 teaches: “Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” <i>COMMENT-In this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead</i>
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1c. and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and	<i>mode and a follow mode.</i> <u>Beckman</u> at paragraph 0051 teaches: “The apparatus 10 further comprises a user control 200 that provides a location, either upon or incorporated in said housing 20, for user indicators 210. The user indicators 210 are connected to the MCU 130 to enable a user to interact with the apparatus 10, including operating the device and ascertaining the status and condition of the device relative to use. Such user indicators 210 include a power switch 220, a first switch 230 and a second switch 240. The first switch 230 and the second switch 240 are connected to the MCU 130, and together with the LED drivers 140 allow a user to indicate and obtain the pattern of LED light desired. Additional switches, not shown, are contemplated as also being within the scope and breadth of the disclosure herein. An “OK” switch 250 and a timer switch 260 are also connected to the MCU 130. The OK switch 250 enables a user to register approval for selected settings of apparatus controls and features. The timer switch 260 enables a user to select a desired duration of high-powered light generation.”
1d. a second light therapy device configured to communicate with the first light therapy device,	<u>Beckman</u> at paragraph 0053 teaches: “The performance of a fan 190 is improved through the provision of depicted vents 191 formed in the housing 20 adjacent to the fan 190. A user control area 200 is provided with a layout and configuration that is practical, easy to clean and easy to use. User indicators 210 provide the user with information about the device status and control. The power switch 220 enables a user to easily turn the device 10 on and off. The timer switch 260 and the OK switch 250 are

1e. the second light therapy device comprising a second housing,	depicted in convenient and stylish arrangement with the first Switch 230 and the second switch 240. A plurality of indicator lights 270 may be coupled to one or more other controls to improve feedback to a user.” <u>Beckman</u> at paragraph 0054 teaches: “Referring now to FIG. 4, the first optic 172 and the second optic 182 are shown in cooperative arrangement with the ergonomic and elegantly functional design of housing 20. The first LED 170 and the second LED 180 are not directly visible in FIG. 4, but are indicated in their relative position centrally arranged within the first optic 172 and the second optic 182. Additional optics and associated LEDs are contemplated as being within the scope and breadth of the present disclosure.” <u>Beckman</u> at paragraph 0077 teaches: “More particularly, the emission assembly 352 includes a first tilted lens housing 354 a and a second tilted lens housing 354 b. The tilted lens housings 354 are defined by a socket 356 receptive to a conical lens 358, which is understood to correspond to the aforementioned optics 172, 182 of the first embodiment. There is a first conical lens 358 a received within the socket 356 of the first tilted lens housing 354 a, and a second conical lens 358 b received within the socket 356 of the second tilted lens housing 354 b. The conical lens 358 may be secured to the tilted lens housing 354 in a variety of ways, including frictional retention, threaded engagement, by adhesive compounds, and so on. Both tilted lens housings 354 have an open apex end 360 and an opposed open base end 362. The open apex end 360 receives the LED 170, which, as described above, includes the diode element 406 and the substrate 408.
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1f. a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,	There are separate heat sinks 500 a, 500 b, corresponding to the first LED 170 and the second LED 180, respectively.” <u>Beckman</u> at paragraph 0017 teaches: “In accordance with one embodiment of the present disclosure, a portable high-powered light emitting diode photobiology device for treatment of biological tissues is contemplated. The device may include a plurality of light emitting diodes, including a first one having a first predetermined wavelength with a first emission axis, as well as a second one having a second predetermined wavelength with a second emission axis. Additionally, the device may have a plurality of optics including a first optic corresponding to the first one of the plurality of light emitting diodes that defines a first dispersion pattern of enhanced light intensity centered on the first emission axis. There may also be a second optic corresponding to the second one of the plurality of light emitting diodes that defines a second dispersion pattern of enhanced light intensity centered on the second emission axis. The device may further include an optical face defined by a flat planar surface. The first one of the plurality of light emitting diodes may be positioned in a first tilted angular relationship relative to the flat planar surface of the optical face. The second one of the plurality of light emitting diodes may be positioned in a second tilted angular relationship relative to the flat planar surface of the optical face. The first emission axis and the second emission axis may intersect at a predefined distance away from the optical face and define a substantially overlapping emission region of the first dispersion pattern and the second dispersion pattern.” <u>Beckman</u> at paragraph 0054 teaches:
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	“Referring now to FIG. 4, the first optic 172 and the second optic 182 are shown in cooperative arrangement with the ergonomic and elegantly functional design of housing 20. The first LED 170 and the second LED 180 are not directly visible in FIG. 4, but are indicated in their relative position centrally arranged within the first optic 172 and the second optic 182. Additional optics and associated LEDs are contemplated as being within the scope and breadth of the present disclosure.” <u>Beckman</u> at paragraph 0062 teaches: “One embodiment of the present disclosure is equipped with a green (525 nm) 3 watt LED with accompanying optic; an amber (590 nm) 3 watt LED with accompanying optic; a near infrared (850 nm) 3 watt LED with accompanying optic; and, a red (660 nm) 5 watt LED with or without optic. In another embodiment of the present disclosure, the device 10 is equipped with a green (525 nm) 1 watt LED with accompanying optic; an amber (590 nm) 1 watt LED with accompanying optic; a near infrared (850 nm) 1 watt LED with accompanying optic; and, a deep-red (660 nm) 5 watt LED with or without accompanying optic. In yet another embodiment of the present disclosure, a device is equipped with an amber (590 nm) 3 watt LED with accompanying optic; and a red (660 nm) 5 watt LED with or without accompanying optic. In another particular embodiment of the present disclosure, the device 10 is equipped with a deep red (660 nm) 5 watt LED with or without optic; and, an infrared (850 nm) 3 watt LED with accompanying optic. In a further embodiment of the present disclosure, the device 10 is equipped with a 415 nm LED and a red (660 nm) LED, each LED being rated from 1 to 10 watts and used with or without accompanying optics.”
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1g. wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode,

Broeng at page 15, paragraph 0233 teaches:

“Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.”

Broeng at pages 15-16, paragraph 0235 teaches:

“Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” (Refer: Page 15 - 16, Para 0235)

Comment: As noted above, in this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead mode and a follow mode.

1h. and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,	<u>Beckman</u> at paragraph 0051 teaches: “The apparatus 10 further comprises a user control 200 that provides a location, either upon or incorporated in said housing 20, for user indicators 210. The user indicators 210 are connected to the MCU 130 to enable a user to interact with the apparatus 10, including operating the device and ascertaining the status and condition of the device relative to use. Such user indicators 210 include a power switch 220, a first switch 230 and a second switch 240. The first switch 230 and the second switch 240 are connected to the MCU 130, and together with the LED drivers 140 allow a user to indicate and obtain the pattern of LED light desired. Additional switches, not shown, are contemplated as also being within the scope and breadth of the disclosure herein. An “OK” switch 250 and a timer switch 260 are also connected to the MCU 130. The OK switch 250 enables a user to register approval for selected settings of apparatus controls and features. The timer switch 260 enables a user to select a desired duration of high-powered light generation.”
1i. wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device,	<u>Beckman</u> at paragraph 0053 teaches: “The performance of a fan 190 is improved through the provision of depicted vents 191 formed in the housing 20 adjacent to the fan 190. A user control area 200 is provided with a layout and configuration that is practical, easy to clean and easy to use. User indicators 210 provide the user with information about the device status and control. The power switch 220 enables a user to easily turn the device 10 on and off. The timer switch 260 and the OK switch 250 are depicted in convenient and stylish arrangement with the first switch 230

1j. and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.	and the second switch 240. A plurality of indicator lights 270 may be coupled to one or more other controls to improve feedback to a user.” <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal form. Accordingly, there are periods where the light sources are emitting radiation at the same time, although at respective levels (at any given time) to produce a constant total illumination. In
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	both examples, the total power emitted from the combination of light sources is substantially uniform over time. Hence, the experience by a human is constant white light illumination, but the white light is composed of two different light sources of which one provides substantially more light, e.g., from 440 nm to 480 nm to the non-visual ganglion cells at the retina and therefore increased brain activity via stroboscopic light around 460 nm. It will be recognized that other wave forms for the illumination can be used. Such wave forms include, but are not limited to triangle, sawtooth, various non-linear waveforms, and the like.” <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject. In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and
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	the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal form. Accordingly, there are periods where the light sources are emitting radiation at the same time, although at respective levels (at any given time) to produce a constant total illumination. In both examples, the total power emitted from the combination of light sources is substantially uniform over time. Hence, the experience by a human is constant white light illumination, but the white light is composed of two different light sources of which one provides substantially more light, e.g., from 440 nm to 480 nm to the non-visual ganglion cells at the retina and therefore increased brain activity via stroboscopic light around 460 nm. It will be recognized that other wave forms for the illumination can be used. Such wave forms include, but are not limited to triangle, sawtooth, various non-linear waveforms, and the like.”
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The combination of Broeng and Beckman disclose each and every limitation of claim 1 as set forth in the chart above, and as described in detail at Section III above. Alternatively, the combination of Broeng and Beckman teach that the functionality of each of the limitations of claim 1 were known in the art. Therefore, a reasonable examiner would consider the teachings of Broeng and Beckman to be important in deciding whether or not the claim is patentable.

Neither Broeng nor Beckman was cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 1 would have been obvious in light of the combination of Broeng and Beckman. Requestor submits that claim 1 should be reexamined and found to be unpatentable.

Ground 3: Claim 1 of Nelson should be rejected under 35 USC §103(a) as being

obvious over Ferguson in view of Beckman.

1. A light therapy system, comprising:	<u>Ferguson</u> at Abstract teaches: “One embodiment of the current LED therapy device comprises at least a left and right LED panel, each panel having a front surface and a back surface, the front surface of the left panel forming an angle relative to the front surface of the right panel of 70° to 170°. Each panel's front surface is generally vertically oriented. The embodiment also includes a detachably coupled pedestal. The pedestal includes a panel attachment section, a stem section, and a base section. The panel attachment section is detachably coupled to the left and right LED panels through a v-shaped slot and flange coupling. The panel attachment section is detachably coupled to the stem section, which, in turn, is also detachably coupled to the base section.” <u>Ferguson</u> at page 1, paragraph 0001 teaches: “This invention generally relates to light therapy devices.”
1a. a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,	<u>Ferguson</u> at page 2, paragraph 0023 teaches: “In the particular embodiment, one LED panel is detachably coupled to the left portion of the pedestal panel attachment section and a second LED panel is detachably coupled to the right portion of the panel attachment section. The panel attachment portion couples to the left and right LED panels by a pair of flanges on the back side of each LED panel. Each flange pair creates a “v” shape on the LED panel back side that is adapted to mate with the v-shaped slots on the panel attachment left portion and right portion.” <u>Ferguson</u> at page 2, paragraph 0025

1b. wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode,	teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <i>COMMENT: In this reference, ‘First light therapy device and first housing’ are referred as a first(one) LED panel of left portion of the panel attachment section.</i> <u>Ferguson</u> at page 2, paragraph 0023 teaches: “In the particular embodiment, one LED panel is detachably coupled to the left portion of the pedestal panel attachment section and a second LED panel is detachably coupled to the right portion of the panel attachment section. The panel attachment portion couples to the left and
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1c. and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and	right LED panels by a pair of flanges on the back side of each LED panel. Each flange pair creates a “v” shape on the LED panel back side that is adapted to mate with the v-shaped slots on the panel attachment left portion and right portion.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light
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1d. a second light therapy device configured to communicate with the first light therapy device,	source out of phase with said second light source.” <u>Broeng</u> at pages 11-12, paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED
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1e. the second light therapy device comprising a second housing,	panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Ferguson</u> at page 2, paragraph 0023 teaches: “In the particular embodiment, one LED panel is detachably coupled to the left portion of the pedestal panel attachment section and a second LED panel is detachably coupled to the right portion of the panel attachment section. The panel attachment portion couples to the left and right LED panels by a pair of flanges on the back side of each LED panel. Each flange pair creates a “v” shape on the LED panel back side that is adapted to mate with the v-shaped slots on the panel attachment left portion and right portion.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the
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1f. a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,	power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <i>Comment: In this reference, ‘Second light therapy device and second housing’ are referred as second LED panel of right portion of panel attachment section.</i> <u>Ferguson</u> at page 2, paragraph 0023 teaches: “In the particular embodiment, one LED panel is detachably coupled to the left portion of the pedestal panel attachment section and a second LED panel is detachably coupled to the right portion of the panel attachment section. The panel attachment portion couples to the left and right LED panels by a pair of flanges on the back side of each LED panel. Each flange pair creates a “v” shape on the LED panel back side that is adapted to mate with the v-shaped slots on the panel attachment left portion and right portion.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces
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1g. wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode,	of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <i>Comment: In this reference, ‘Second light therapy device and second housing’ are referred as second LED panel of right portion of panel attachment section.</i> <u>Ferguson</u> at page 2, paragraph 0023 teaches: “In the particular embodiment, one LED panel is detachably coupled to the left portion of the pedestal panel attachment section and a second LED panel is detachably coupled to the right portion of the panel attachment section. The panel attachment portion couples to the left and right LED panels by a pair of flanges on the back side of each LED panel. Each flange pair creates a “v” shape on the LED panel back side that is adapted to mate with the v-shaped slots on the panel attachment left portion and right portion.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED
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1h. and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,	panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED
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	panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Ferguson</u> at page 5, paragraph 0055 teaches: “In the current embodiment, the power output 88 on the one or more side surfaces 26 of one LED panel 14 supplies power to the power supply input mechanism 92 of the other LED panel. The LED panel including the power output may be referenced as the master panel and the LED panel not including the power output may be reference as the slave panel. The power is transmitted between the panels through a power conduit 1 10 such as, but not limited to, a power cord. Power is supplied to the power supply input mechanism of the LED panel containing the power supply output and the on/off switch through a power supply 112 that is connected to an external power supply, such as, but not limited to, a wall outlet having a range of 100 volts to 240 volts. In alternative embodiments, the power supply 112 may be connected to a power supply such as an in-home power generator.” (Refer: Page 5, Para 0055) “In the current embodiment, the power output 88 on the one or more side surfaces 26 of one LED panel 14 supplies power to the power supply input mechanism 92 of the other LED panel. The LED panel including the power output may be referenced as the master panel and the LED panel not including the power output may be reference as the slave panel. The power is transmitted between the panels through a power conduit 1 10 such as, but not limited to, a power cord. Power is supplied to the
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1i. wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device,	power supply input mechanism of the LED panel containing the power supply output and the on/off switch through a power supply 112 that is connected to an external power supply, such as, but not limited to, a wall outlet having a range of 100 volts to 240 volts. In alternative embodiments, the power supply 112 may be connected to a power supply such as an in-home power generator.” <u>Ferguson</u> at page 5, paragraph 0062 teaches: “Upon power being supplied to the controller 104 through the power supply input mechanism 92, the on/off switch 132 must be turned on in order for the controller to signal the timer circuit 130 to initiate a timing sequence. The on/off switch is typically connected to a push-button 90 located on the one or more side surfaces. The timing sequence in the current embodiment is 9 minutes. A 9 minute timing cycle is used in order to provide a user with the amount of light necessary for the therapeutic effect of the light to take effect on the skin at the current LED configuration. Alternative embodiments may have longer or shorter timing sequences or may not employ a push-button. In some alternative, the timing sequence may be different because the LED wavelength and power is different than the current embodiment.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED
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	panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Ferguson</u> at page 5, paragraph 0054 teaches: “One of the LED panel's 14 one or more side surfaces 26 includes a power output mechanism 88, an on/off push button 90, and a power supply input mechanism 92. The other LED panel's one or more side surfaces only includes a power supply input mechanism. In the current embodiment, it is typically the left LED panel whose one or more side surfaces only includes the power input mechanism. In alternative embodiments comprising more than one left and one right LED panel, more than one LED panel's one or more side surfaces may only comprise the power input mechanism and more than one LED panel's one or more side surfaces may comprise a power output mechanism, an on/off push button and a power input mechanism. Alternative embodiments may also be comprised of only one LED panel.” <u>Ferguson</u> at page 5, paragraph 0055 teaches:
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1j. and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.	“In the current embodiment, the power output 88 on the one or more side surfaces 26 of one LED panel 14 supplies power to the power supply input mechanism 92 of the other LED panel. The LED panel including the power output may be referenced as the master panel and the LED panel not including the power output may be reference as the slave panel. The power is transmitted between the panels through a power conduit 1 10 such as, but not limited to, a power cord. Power is supplied to the power supply input mechanism of the LED panel containing the power supply output and the on/off switch through a power supply 112 that is connected to an external power supply, such as, but not limited to, a wall outlet having a range of 100 volts to 240 volts. In alternative embodiments, the power supply 112 may be connected to a power supply such as an in-home power generator.” <u>Ferguson</u> at page 2, paragraph 0025 teaches: “In the current embodiment, the LED panel front surface is a uniform color and includes an array of mounted infra-red LEDs. Additionally, dual columns of non infra-red LEDs are mounted on the front surface. The current embodiment's LED panels also include one or more side surfaces. Included on one of the LED panels'one ore more side surfaces is a power input mechanism, an on/off push button, and a power output. This is the master panel. Power is supplied from a power supply to the power input mechanism. The one or more side surfaces of the other LED panel in the current embodiment includes only a power input. This is the slave panel. Power is supplied from the power output of one of the LED panels to the power input of the other LED panel through a power supply conduit. The
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	particular embodiment's power supply conduit is a power cord coupled to the power input mechanism of one LED panel and the power output of the other LED panel. In alternative embodiments, power may be supplied to more than one slave LED panel from the master LED panel, or power may be supplied to each LED panel from an individual power supply.” <u>Ferguson</u> at page 5, paragraph 0054 teaches: “One of the LED panel's 14 one or more side surfaces 26 includes a power output mechanism 88, an on/off push button 90, and a power supply input mechanism 92. The other LED panel's one or more side surfaces only includes a power supply input mechanism. In the current embodiment, it is typically the left LED panel whose one or more side surfaces only includes the power input mechanism. In alternative embodiments comprising more than one left and one right LED panel, more than one LED panel's one or more side surfaces may only comprise the power input mechanism and more than one LED panel's one or more side surfaces may comprise a power output mechanism, an on/off push button and a power input mechanism. Alternative embodiments may also be comprised of only one LED panel.” <u>Ferguson</u> at page 5, paragraph 0055 teaches: “In the current embodiment, the power output 88 on the one or more side surfaces 26 of one LED panel 14 supplies power to the power supply input mechanism 92 of the other LED panel. The LED panel including the power output may be referenced as the master panel and the LED panel not including the power output may be reference as the slave panel. The power is transmitted between the panels through a power conduit 1 10 such as, but not limited to, a power cord. Power is supplied to the
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	power supply input mechanism of the LED panel containing the power supply output and the on/off switch through a power supply 112 that is connected to an external power supply, such as, but not limited to, a wall outlet having a range of 100 volts to 240 volts. In alternative embodiments, the power supply 112 may be connected to a power supply such as an in-home power generator.”
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The combination of Broeng and Ferguson disclose each and every limitation of claim 1 as set forth in the chart above, and as described in detail at Section III above. Alternatively, the combination of Broeng and Ferguson teach that the functionality of each of the limitations of claim 1 were known in the art. Therefore, a reasonable examiner would consider the teachings of Broeng and Ferguson to be important in deciding whether or not the claim is patentable.

Although Ferguson was cited in the listing of references by the examiner, it was not directly asserted against Nelson in the Office Action. Moreover, Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 1 would have been obvious in light of the combination of Broeng and Ferguson. Requestor submits that claim 1 should be reexamined and found to be unpatentable.

Ground 4: Claim 1 of Nelson should be rejected under 35 USC §103(a) as being obvious over Lim in view of Broeng.

1. A light therapy system, comprising:	<u>Lim</u> at abstract teaches: “The present invention is a portable non-invasive system, apparatus and method for performing light therapy or photobiomodulation upon the brain tissues through the skull and/or nostrils of a living mammalian subject for the medical purpose of stimulating the brain in-vivo. The present invention utilizes the transcranial and/or intranasal pathways as points of anatomic access and follows established principles for the conceptual approach that irradiation of the brain tissue with low level light energy of certain fixed parameters would achieve major therapeutic effects in-vivo.” (Refer: Abstract)
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1a. a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,

Lim at column 11-12, lines 5 – 10 teach: “The present invention provides a self-administrable system for performing non-invasive neurostimulation therapy of the brain of a living mammal on-demand, said self-administrable non-invasive neurostimulation system comprising: first, second, third and fourth configured irradiation units, each of said first, second, third and fourth configured irradiation units comprising a portable hollow casing having fixed dimensions, a sized internal spatial volume and an external surface configuration suitable for application to the skull, said portable hollow casing of each configured irradiation unit being comprised of: (i) a light energy transmitting material which forms at least a portion of the configured external surface for said hollow casing of each configured irradiation unit; and (ii) at least one light generating unit housed and contained within said internal spatial volume of said hollow casing of each configured irradiation unit and which is capable of generating light energy of at least one preselected wavelength selected from the group consisting of near infrared red light wavelengths and visible red light wavelengths, at a predetermined energy intensity and for a preset time duration on-demand sufficient to penetrate through the skull and to pass into the brain, whereby said first, second, third and fourth configured irradiation units can emit light energy after application to the skull and achieve passage of said emitted light energy through the skull into at least one portion of the brain in-vivo; a frame adapted for support of said first, second, third and fourth configured irradiation units and for at will placement of said light transmitting external surface of said first,

	second, third and fourth configured irradiation units at a fixed position and desired irradiation direction on the skull; a portable controller assembly able to control on-demand delivery of light energy from said configured irradiation units into at least one portion of the brain in-vivo, said controller assembly including: (a) a portable and replenishable power source of on-demand direct electrical current, (b) a central processing unit for controlling and directing the flow of such direct electrical current, (c) at least one connector in electrical communication with the power source for on-demand conveyance of direct electrical current to the central processing unit, and (d) at least one connector in electrical communication with the configured irradiation units for on-demand conveyance of direct electrical current from said central processing unit to said light generating units; wherein: (A) said first configured irradiation unit is positioned to direct light energy to a first region of the brain comprising the left and right ventral mesial prefrontal cortex areas, and optionally, the anterior cingulate gyrus areas; (B) said second configured irradiation unit is positioned to direct light energy to a second region of the brain comprising the left and right precuneus cortical areas, and optionally, the posterior cingulate gyrus areas; (C) said third configured irradiation unit is positioned to direct light energy to a third region of the brain comprising the left angular gyrus area in the lateral, inferior parietal cortex, and optionally, the left posterior cingulate gyrus; and (D) said fourth configured irradiation unit is positioned to direct light energy to a fourth region of the brain comprising the right angular gyrus area in the lateral, inferior parietal cortex, and optionally, the right posterior cingulate gyrus.”
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1b. wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode,	<u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at pages 15-16, paragraph 0235 teaches: “Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” <i>COMMENT-In this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead mode and a follow mode.</i>
1c. and wherein the first light therapy device	<u>Lim</u> at Col. 33, lines 42-59 teach:

comprises a first switch configured to select at least one of the lead mode and the follow mode; and	“In addition, as shown by FIGS. 5-6 respectively, the self-administrable applicator means 23 is in electrical communication (via a cable and jack module connector 27) with a process controller assembly 28, a control and power supply construct which is compact, lightweight and sufficiently portable to be carried by hand, fit inside a shirt pocket, or be clipped to a shirt. In this preferred embodiment, the process controller assembly 28 includes a portable and disposable/replenishable source of on-demand direct electrical current, and is able to convey carefully regulated dosages of electric power on-demand to the light generating unit(s) 29 contained within with the applicator assembly 23 for light irradiation therapy. In this instance, the process and power controller assembly 28 also includes and provides an automatic timer and power switch 28 a. The controller automatically shuts off the electric current conveyed to the light generating unit(s) after the passing of a prechosen amount of time.”
1d. a second light therapy device configured to communicate with the first light therapy device,	<u>Lim</u> at Col. 37 - 39, Lines 48 – 11 teaches: The method for performing non-invasive irradiation light therapy in order to achieve brain neurostimulation in a living mammalian subject preferably comprises the following steps and actions: Step 1: Obtaining a light energy-emitting apparatus comprised of: first, second, third and fourth configured irradiation units, each of said first, second, third and fourth configured irradiation units comprising a portable hollow casing having fixed dimensions, a sized internal spatial volume and an external surface configuration suitable for application to the skull, said portable hollow casing of each configured irradiation unit being comprised of: (i) a

	light energy transmitting material which forms at least a portion of the configured external surface for said hollow casing of each configured irradiation unit; and (ii) at least one light generating unit entirely housed and contained within said internal spatial volume of said hollow casing of each configured irradiation unit and which is capable of generating light energy of at least one preselected wavelength selected from the group consisting of near infrared red light wavelengths and visible red light wavelengths, at a predetermined energy intensity and for a preset time duration on-demand sufficient to penetrate through the skull and to pass into the brain, whereby said first, second, third and fourth configured irradiation units can emit light energy after application to the skull and achieve passage of said emitted light energy through the skull into at least one portion of the brain in-vivo; a frame adapted for support of said first, second, third and fourth configured irradiation units and for at will placement of said light transmitting external surface of said first, second, third and fourth configured irradiation units at a fixed position and desired irradiation direction on the skull; a portable controller assembly able to control on-demand delivery of light energy from said configured irradiation units into at least one portion of the brain in-vivo, said controller assembly including: (a) a portable and replenishable power source of on-demand direct electrical current, (b) a central processing unit for controlling and directing the flow of such direct electrical current, (c) at least one connector in electrical communication with the power source for on-demand conveyance of direct electrical current to the central processing unit, and (d) at least one connector in electrical
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	communication with the configured irradiation units for on-demand conveyance of direct electrical current from said central processing unit to said light generating units; wherein said light energy-emitting apparatus further comprises: a configured irradiation lens including: a portable hollow casing having fixed dimensions, a sized internal spatial volume, and an external surface configuration suitable for in-vivo insertion into the nasal cavity space of a nostril without causing substantial impairment to the subject's ability to breathe and without invading the nasal tissues of the living subject, said portable casing of said configured irradiation lens being comprised of: (i) a light energy transmitting material which forms at least a portion of the configured external surface for said hollow casing of said configured irradiation lens, (ii) at least one light generating unit entirely housed and contained within said internal spatial volume of said hollow casing of said configured irradiation lens and which is capable of generating light energy of at least one preselected wavelength selected from the group consisting of near infrared red light wavelengths and visible red light wavelengths, at a predetermined energy intensity and for a preset time duration on-demand sufficient to penetrate through the nasal tissues and to pass into the brain, whereby said configured irradiation lens can emit light energy in any desired direction within the nasal cavity after in-vivo insertion and achieve passage of said emitted light energy from the nasal cavity into at least one portion of the brain in-vivo; a self-administrable applicator means adapted for support of said configured irradiation lens and for at will placement of said light transmitting external surface of said configured irradiation lens at a fixed position and
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1e. the second light therapy device comprising a second housing,	desired irradiation direction within a nostril adjacent to the internal lining of a subject's nasal cavity; wherein said portable controller assembly is further able to control on-demand delivery of light energy from said configured irradiation lens.” <u>Lim</u> at Col. 13, Lines 19 – 53 teaches: “In another aspect, the present invention provides a self-administrable method for performing non-invasive neurostimulation therapy of the brain via a nasal cavity and through the skull of a living mammalian on-demand, said self-administrable non-invasive neurostimulation method comprising the steps of: obtaining a light energy-emitting apparatus comprised of: first, second, third and fourth configured irradiation units, each of said first, second, third and fourth configured irradiation units comprising a portable hollow casing having fixed dimensions, a sized internal spatial volume and an external surface configuration suitable for application to the skull, said portable hollow casing of each configured irradiation unit being comprised of: (i) a light energy transmitting material which forms at least a portion of the configured external surface for said hollow casing of each configured irradiation unit; and (ii) at least one light generating unit housed and contained within said internal spatial volume of said hollow casing of each configured irradiation unit and which is capable of generating light energy of at least one preselected wavelength selected from the group consisting of near infrared red light wavelengths and visible red light wavelengths, at a predetermined energy intensity and for a preset time duration on-demand sufficient to penetrate through the skull and to pass into the brain, whereby said
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1f. a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,	first, second, third and fourth configured irradiation units can emit light energy after application to the skull and achieve passage of said emitted light energy through the skull into at least one portion of the brain in-vivo;” <u>Lim</u> at Col. 11, lines 5-35 teach: “The present invention provides a self-administrable system for performing non-invasive neurostimulation therapy of the brain of a living mammal on-demand, said self-administrable non-invasive neurostimulation system comprising: first, second, third and fourth configured irradiation units, each of said first, second, third and fourth configured irradiation units comprising a portable hollow casing having fixed dimensions, a sized internal spatial volume and an external surface configuration suitable for application to the skull, said portable hollow casing of each configured irradiation unit being comprised of: (i) a light energy transmitting material which forms at least a portion of the configured external surface for said hollow casing of each configured irradiation unit; and (ii) at least one light generating unit housed and contained within said internal spatial volume of said hollow casing of each configured irradiation unit and which is capable of generating light energy of at least one preselected wavelength selected from the group consisting of near infrared red light wavelengths and visible red light wavelengths at a predetermined energy intensity and for a preset time duration on-demand sufficient to penetrate through the skull and to pass into the brain, whereby said first, second, third and fourth configured irradiation units can emit light energy after application to the skull and achieve passage of said emitted light energy
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1g. wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode,	through the skull into at least one portion of the brain in-vivo;” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at pages 15-16, paragraph 0235 teaches: “Particular in view of the various possible waveforms that can be used to for the first and second light sources, the two sources need not necessarily operate 180 degrees out of phase. Accordingly, in certain embodiments, the phase difference between the first light source and the second light source ranges from about 45 degrees, or from about 60 degrees, or from about 75 degrees, or from about 90 degrees up to about 180 degrees, or up to about 165 degrees, or up to about 150 degrees, or up to about 135 degrees. In certain embodiments the phase difference between the first light source and the second light source is about 180 degrees so that when the first light source is on, the second light source is off and vice versa.” (Refer: Page 15 - 16, Para 0235) <i>Comment: As noted above, in this reference, the first light source and second light source are out of phase to each other so we can infer this mode of operation as a lead mode and a follow mode.</i>
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1h. and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,	<u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at pages 11-12, paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.” <i>Comment: In this reference, controller controls for one or more of on/off for phase, and phase will only decide the mode of operation of light therapy devices.</i>
1i. wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device,	<u>Broeng</u> at page 4, paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraph 0233 teaches: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the

1j. and when the second light therapy device	first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal form. Accordingly, there are periods where the light sources are emitting radiation at the same time, although at respective levels (at any given time) to produce a constant total illumination. In both examples, the total power emitted from the combination of light sources is substantially uniform over time. Hence, the experience by a human is constant white light illumination, but the white light is composed of two different light sources of which one provides substantially more light, e.g., from 440 nm to 480 nm to the non-visual ganglion cells at the retina and therefore increased brain activity via stroboscopic light around 460 nm. It will be recognized that other wave forms for the illumination can be used. Such wave forms include, but are not limited to triangle, sawtooth, various non-linear waveforms, and the like.” <u>Broeng</u> at page 4, paragraph 0052 teaches:
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operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.	“The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at page 15, paragraphs 0233-0234 teach: “Accordingly, in certain embodiments the light sources (first light source and second light source) are operated out of phase so that illumination provided by the second light source corrects for changes in illumination provided by the first light source thereby providing illumination that appears substantially constant to a subject (e.g., to a human or to a non-human mammal) even at a blink rate below the flicker fusion frequency for the subject. In the illustrative examples shown in FIGS. 4A, 4B, and 6 the light sources are modulated on-off (or high-low) and are essentially driven by a square wave voltage source. However, it will be recognized that the first light source and the second light source can be ramped up and down in gradual linear or non-linear manner. Thus, for example, FIG. 5 shows another schematic illustration of alternating light sources, where the light sources are modulated in a sinusoidal form. Accordingly, there are periods where the light sources are emitting radiation at the same time, although at respective levels (at any given time) to produce a constant total illumination. In both examples, the total power emitted from the combination of light sources is substantially uniform over time. Hence, the experience by a human is constant white light illumination, but the white light is composed of two different light sources of which one provides substantially more light, e.g., from 440 nm to 480 nm to the non-visual ganglion cells at the retina and therefore increased
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	brain activity via stroboscopic light around 460 nm. It will be recognized that other wave forms for the illumination can be used. Such wave forms include, but are not limited to triangle, sawtooth, various non-linear waveforms, and the like.”
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The combination of Lim and Broeng disclose each and every limitation of claim 1 as set forth in the chart above, and as described in detail at Section III above. Alternatively, the combination of Lim and Broeng teach that the functionality of each of the limitations of claim 1 were known in the art. Therefore, a reasonable examiner would consider the teachings of Lim and Broeng to be important in deciding whether or not the claim is patentable.

Neither Lim nor Broeng was cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 1 would have been obvious in light of the combination of Lim and Broeng. Requestor submits that claim 1 should be reexamined and found to be unpatentable.

Ground 5: Claim 1 of Nelson should be rejected under 35 USC §103(a) as being obvious over Dijkstra in view of Norwood.

1a. A light therapy system, comprising:	<u>Dijkstra</u> at Abstract teaches: “The invention provides a light therapy device for providing therapeutic treatment to a user's body, wherein the user may be a person or an animal. The device is using a light projection method for treating the body problems and/or skin disorders. Further, the device is having a rotatable assembly that automatically follows the movement of the desired area of the body needs to be treated. The device uses artificial intelligence, machine learning, localization modules, object detection module, image processing module, and 3D-mapping to automatically identify and treating the desired area of the body. Furthermore, the user can manually identify, select and prioritize desired treatment portion and can select the type of treatment required.”
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1b. a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light,

Dijkstra at paragraph 0009 teaches:

“The basic premise of light-based treatment is that different wavelength trigger different reactions beneath the epidermis and penetrate the skin at varying depths. Blue light is generally used to kill the bacteria that causes acne, providing an effective treatment for blackheads and whiteheads, whereas wavelengths of red light are normally used to speed up healing and stimulate collagen production, simultaneously shrinking enlarged pores and tightening the skin.”

Dijkstra at paragraph 0067 teaches:

“The light projection unit 110 project a light of a 100-1600 nm wavelength which is suitable for various skin and/or body condition treatments. Further, the light head 111 keeps the projected light away from the user's eyes, as the certain wavelength of the light projection could be hazardous to the human eyes.”

Dijkstra at paragraph 0096 and FIG. 8 teach:

“Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture. The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further, the first and second light therapy devices identify the at least one body condition from

	their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.” <u>Dijkstra</u> at paragraphs 0133-0134 teach: “According to an advantageous embodiment of the present disclosure, the light therapy device provides a LED light-based treatment which is a painless, relaxing, non-invasive skin-care treatment that has multiple benefits particularly stimulating collagen and require no downtime. Further, LED treatments work by using an array of bright light-emitting diodes that send low-level light energy into the deeper layers of the skin. According to an advantageous embodiment of the present disclosure, the light therapy device uses infrared light which tends to be used to treat wrinkles and other problems caused by poor skin support, such as translucent skin or coarse skin.” <u>Dijkstra</u> at paragraph 0059-0063 and FIG. 1 teach: “Referring to FIG. 1 shows a block diagram of components of a light therapy device 200 according to an embodiment of the present disclosure. Further, referring to FIG. 1 and FIG. 2, the light therapy device 200 is having a first housing 210 mounted on a second housing 220. The first housing 210 includes a rotatable head 250 that is mounted on a spindle 230 in a rotatable manner. Further, the rotatable head 250 includes a light projection unit 110, a camera unit 120, a controlling unit 130 and a memory unit 140. Furthermore, the light projection unit 110, the camera unit 120, and the memory unit 140 are electronically and communicatively connected to the controlling unit 130. [0060]The second housing 220 is including a rotation unit 150,
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1c. wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode,	a display unit 160, and a power unit 170. A first end 231 of the spindle 230 is connected to a motor mounted inside the rotation unit 150 and a second end 232 of the spindle 230 is connected to the rotatable head 250. Further, the motor rotates the spindle 230 as per the controlling unit 130 input. [0061]The light projection unit 110 is having a light head 111, a light direction controller 112, and a light source 113. In this, the light source 113 projects a light on the light direction controller 112 which is able to control and divert the light as per the controlling unit 130 input. Further, the light direction controller 112 uses saccade mirror, direction tuning film, laser sintering, or mirror type galvanometer etc. techniques for controlling a direction of a light emitted from the light source 113. [0062]The controlling unit 130 is having a processor 131 in order to control the light projecting unit 110, the memory unit 140, the rotation unit 150, the camera unit 120 and the display unit 160. [0063]According to another embodiment of the present disclosure, the light source 113 may be a LED light, infrared light, a UV light, a laser light, photo reactive chemical producing light, phosphorus or any other suitable light source generating the light in a range of 100-1600 nm wavelength for treating a person.” <u>Dijkstra</u> at paragraph 0096 teaches: “Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture.
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	The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further, the first and second light therapy devices identify the at least one body condition from their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.” <u>Dijkstra</u> at paragraph 0099 teaches: “According to yet another embodiment of the present disclosure, the light therapy system uses a master-slave model. Further, the two or more light therapy devices are used in which one light therapy device acts as a master light therapy device and the rest of the light therapy devices acts as a slave to the master light therapy device. All the light therapy devices including master light therapy device and slave light therapy devices are linked with each other and forming a peer to peer network. In this, the master light therapy device has a controlling unit which is controlling the all other slave light therapy devices, each of the slave light therapy devices is having a communication module to communicate with the master light therapy device and a light projection unit works as per the master light therapy device input. To use this, the user activates the master light therapy device and the master light therapy device establishes a wired or wireless connection with other slave light therapy devices, the master device identifies the location and position of the user and allocates separate treatment
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1d. and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and	portion to each slave light therapy device by using artificial intelligence, machine learning, object detection and localization module or the user may manually select, identify, locate and treat the separate treatment portion for each light therapy device” <u>Norwood</u> at column 23, lines 20-53 teach: “The control logic 640 may be programmed/controlled in any number of ways. The control logic 640 may first be controlled via a master/slave switch 642. When switch 642 is set in the slave position, control logic 640 is provided with external signals for setting operation of the diffusers 600. For instance, if a plurality of individual diffusers 600 are being used together, one can be designated a master, and the rest slaves. Of course, such an embodiment is only one possible configuration of our invention and is not necessary to realize the benefits of our invention. If only one diffuser 600 is used, the following description of the master/slave circuitry can be dispensed with. In such a case, the diffuser 600 would be controlled along the lines described hereinafter with reference to the master unit. The slave devices receive signals from the master dictating the operation of each slave. The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals. Alternatively, the master device may be a remote control, rather than another diffuser 600. When switch 642 is in the slave position, the RF transceiver 648 receives an external signal, through an antenna 649, from a remote control, a master-designated diffuser 600, or the like. That signal is transmitted from the
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1e. a second light therapy device configured to communicate with the first light therapy device,	RF transceiver 648 to control logic 640 to set the presentation of light and sound through the LED control block 610 and the piezo frequency generator 620. When switch 642 is in the master position, the operation of the control logic is set by an internal program at this diffuser 600, such that microcontroller 601 acts as the master. In this case, the operational program from control logic 640 is sent to the RF transceiver 648 and broadcast to slave devices via the antenna 649” <u>Dijkstra</u> at paragraph 0096 and FIG. 8 teach: “Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture. The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further, the first and second light therapy devices identify the at least one body condition from their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.”
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1f. the second light therapy device comprising a second housing, a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light,

Dijkstra at paragraph 0009 teaches:

“The basic premise of light-based treatment is that different wavelength trigger different reactions beneath the epidermis and penetrate the skin at varying depths. Blue light is generally used to kill the bacteria that causes acne, providing an effective treatment for blackheads and whiteheads, whereas wavelengths of red light are normally used to speed up healing and stimulate collagen production, simultaneously shrinking enlarged pores and tightening the skin.”

Dijkstra at paragraph 0067 teaches:

“The light projection unit 110 project a light of a 100-1600 nm wavelength which is suitable for various skin and/or body condition treatments. Further, the light head 111 keeps the projected light away from the user's eyes, as the certain wavelength of the light projection could be hazardous to the human eyes.”

Dijkstra at paragraph 0096 and FIG. 8 teach:

“Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture. The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further,

	the first and second light therapy devices identify the at least one body condition from their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.” <u>Dijkstra</u> at paragraphs 0133-0134 teach: “According to an advantageous embodiment of the present disclosure, the light therapy device provides a LED light-based treatment which is a painless, relaxing, non-invasive skin-care treatment that has multiple benefits particularly stimulating collagen and require no downtime. Further, LED treatments work by using an array of bright light-emitting diodes that send low-level light energy into the deeper layers of the skin. According to an advantageous embodiment of the present disclosure, the light therapy device uses infrared light which tends to be used to treat wrinkles and other problems caused by poor skin support, such as translucent skin or coarse skin.” <u>Dijkstra</u> at paragraph 0059-0063 and FIG. 1 teach: “Referring to FIG. 1 shows a block diagram of components of a light therapy device 200 according to an embodiment of the present disclosure. Further, referring to FIG. 1 and FIG. 2, the light therapy device 200 is having a first housing 210 mounted on a second housing 220. The first housing 210 includes a rotatable head 250 that is mounted on a spindle 230 in a rotatable manner. Further, the rotatable head 250 includes a light projection unit 110, a camera unit 120, a controlling unit 130 and a memory unit 140. Furthermore, the light projection unit 110, the camera unit 120, and the memory unit 140 are electronically and communicatively connected to the
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1g. wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode,	controlling unit 130. [0060]The second housing 220 is including a rotation unit 150, a display unit 160, and a power unit 170. A first end 231 of the spindle 230 is connected to a motor mounted inside the rotation unit 150 and a second end 232 of the spindle 230 is connected to the rotatable head 250. Further, the motor rotates the spindle 230 as per the controlling unit 130 input. [0061]The light projection unit 110 is having a light head 111, a light direction controller 112, and a light source 113. In this, the light source 113 projects a light on the light direction controller 112 which is able to control and divert the light as per the controlling unit 130 input. Further, the light direction controller 112 uses saccade mirror, direction tuning film, laser sintering, or mirror type galvanometer etc. techniques for controlling a direction of a light emitted from the light source 113. [0062]The controlling unit 130 is having a processor 131 in order to control the light projecting unit 110, the memory unit 140, the rotation unit 150, the camera unit 120 and the display unit 160. [0063]According to another embodiment of the present disclosure, the light source 113 may be a LED light, infrared light, a UV light, a laser light, photo reactive chemical producing light, phosphorus or any other suitable light source generating the light in a range of 100-1600 nm wavelength for treating a person.” <u>Dijkstra</u> at paragraph 0096 teaches: “Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user
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	activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture. The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further, the first and second light therapy devices identify the at least one body condition from their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.” <u>Dijkstra</u> at paragraph 0099 teaches: “According to yet another embodiment of the present disclosure, the light therapy system uses a master-slave model. Further, the two or more light therapy devices are used in which one light therapy device acts as a master light therapy device and the rest of the light therapy devices acts as a slave to the master light therapy device. All the light therapy devices including master light therapy device and slave light therapy devices are linked with each other and forming a peer to peer network. In this, the master light therapy device has a controlling unit which is controlling the all other slave light therapy devices, each of the slave light therapy devices is having a communication module to communicate with the master light therapy device and a light projection unit works as per the master light therapy device input. To use this, the user activates the master light therapy device and the master light therapy device establishes a wired or wireless connection with other
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1h. and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,	slave light therapy devices, the master device identifies the location and position of the user and allocates separate treatment portion to each slave light therapy device by using artificial intelligence, machine learning, object detection and localization module or the user may manually select, identify, locate and treat the separate treatment portion for each light therapy device” <u>Norwood</u> at column 23, lines 20-53 teach: “The control logic 640 may be programmed/controlled in any number of ways. The control logic 640 may first be controlled via a master/slave switch 642. When switch 642 is set in the slave position, control logic 640 is provided with external signals for setting operation of the diffusers 600. For instance, if a plurality of individual diffusers 600 are being used together, one can be designated a master, and the rest slaves. Of course, such an embodiment is only one possible configuration of our invention and is not necessary to realize the benefits of our invention. If only one diffuser 600 is used, the following description of the master/slave circuitry can be dispensed with. In such a case, the diffuser 600 would be controlled along the lines described hereinafter with reference to the master unit. The slave devices receive signals from the master dictating the operation of each slave. The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals. Alternatively, the master device may be a remote control, rather than another diffuser 600. When switch 642 is in the slave position, the RF transceiver 648 receives an external signal, through an antenna 649, from a remote control, a master-designated diffuser 600, or
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1i. wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.	the like. That signal is transmitted from the RF transceiver 648 to control logic 640 to set the presentation of light and sound through the LED control block 610 and the piezo frequency generator 620. When switch 642 is in the master position, the operation of the control logic is set by an internal program at this diffuser 600, such that microcontroller 601 acts as the master. In this case, the operational program from control logic 640 is sent to the RF transceiver 648 and broadcast to slave devices via the antenna 649” <u>Dijkstra</u> at paragraph 0096 teaches: “Referring to FIG. 8, the light therapy system 100 is having two light therapy device 200 according to an exemplary embodiment of the FIG. 2, the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user. To use, the user activates the first and second light therapy device by turning ON the power button or by a head movement or by a hand gesture. The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization. The first and the second devices start scanning the corresponding body portions of the user body and each identifies the at least one treatment portion. Here, first and second light therapy devices have separate treatment portions. Further, the first and second light therapy devices identify the at least one body condition from their respective treatment portions. Further, the first and second light therapy device projects the light on their respective treatment portions. The first and the second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at
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	one time.”
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The combination of Dijkstra and Norwood disclose each and every limitation of claim 1 as set forth in the chart above, and as described in detail at Section III above. Alternatively, the combination of Dijkstra and Norwood teach that the functionality of each of the limitations of claim 1 were known in the art. Therefore, a reasonable examiner would consider the teachings of Dijkstra and Norwood to be important in deciding whether or not the claim is patentable.

Neither Dijkstra or Norwood was cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 1 would have been obvious in light of the combination of Dijkstra and Norwood. Requestor submits that claim 1 should be reexamined and found to be unpatentable.

4. Claim 2 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

2. The light therapy system of claim 1, wherein the first light therapy device and the second light therapy device are configured to communicate directly via a wireless connection.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0269 teaches: “In certain embodiments the controller may be wirelessly interconnected with one or phototherapy device(s) for wireless transmission of control signals from the controller to the respective device(s). For example, the light controller and a phototherapy device may comprise an interface to a wired Local Area-Network (LAN) and/or to a wireless LAN (Bluetooth, WiFi), and/or a to a mobile telephone network, and/or to another Wide-Area-Network (WAN), such as the internet. In this way networks already present may be utilized for control of the phototherapy device.”
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Broeng discloses each and every limitation of claim 2 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 2 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding

whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 2 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 2 should be reexamined and found to be unpatentable.

5. Claim 3 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

3. The light therapy system of claim 1, wherein the first light therapy device and the second light therapy device are configured to communicate directly via a wired connection	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0269 teaches: “In certain embodiments the controller may be wirelessly interconnected with one or phototherapy device(s) for wireless transmission of control signals from the controller to the respective device(s). For example, the light controller and a phototherapy device may comprise an interface to a wired Local Area-Network (LAN) and/or to a wireless LAN (BlueTooth, WiFi), and/or a to a mobile telephone network, and/or to another Wide-Area-Network (WAN), such as the internet. In this way networks already present may be utilized for control of the phototherapy device.”
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Broeng discloses each and every limitation of claim 3 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 3 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 3 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 3 should be reexamined and found to be unpatentable.

6. Claim 4 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

4. The light therapy system of claim 1, wherein the first light therapy device comprises a first plurality of communication ports and the second light therapy device comprises a second plurality of communication ports, the light therapy system further comprising a communication cable having a first end coupled to a first port of the first plurality of communication ports, and a second end coupled to a second port of the second plurality of communication ports.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0266 teaches: “One illustrative, but non-limiting embodiment of control circuitry for operating a light source comprising the phototherapy device described herein is shown in FIG. 8 shows one illustrative, but non-limiting embodiment of a circuit that can drive a light source comprising a phototherapy device described herein. In one illustrative, but non-limiting embodiment the phototherapy device comprises five LEDs that form two different light sources (see, e.g., FIG. 1). In certain embodiments the driver electronics can be identical for each LED. A micro-controller can provide signals to the “Dim” and “Enable” ports to enable the desired flickering and phase difference (e.g., 180 degree phase difference) between the two light sources. As an example of the micro-controller, in certain embodiments an Arduino MEGA2560 micro-controller (see, e.g., FIG. 12) to generate the timing signals for the LEDs, but other micro-controllers or computers can be used. FIG. 13 illustrates the LEDs with mounts, driver electronics and micro-controller all wired up. FIG. 14, provides a close-up view of the LEDs. It will be recognized that these embodiments are illustrative and non-limiting. Using the teachings provided herein, numerous variations of controllers, control circuitry, light sources, and lamps will be available to one of skill in the art.”
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Broeng discloses each and every limitation of claim 4 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 4 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 4 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 4 should be reexamined and found to be unpatentable.

7. Claim 5 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

5. The light therapy system of claim 1, wherein a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0072 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.”
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Broeng discloses each and every limitation of claim 5 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 5 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 5 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 5 should be reexamined and found to be unpatentable.

8. Claim 6 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

6. The light therapy system of claim 1, wherein a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0072 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.”
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Broeng discloses each and every limitation of claim 6 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 6 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 6 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 6 should be reexamined and found to be unpatentable.

9. Claim 7 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

7. The light therapy system of claim 1,	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above.
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further comprising: a first control panel coupled to the first light therapy device, the first control panel comprising a first input button; and	<u>Broeng</u> at paragraph 0112 teaches: “The device according to any one of embodiments 1-88, wherein said device comprises a controller that controls one or more of the intensity of said first light source and/or said second light source, the blinking rate of said first light source and/or said second light source, the phase of said first light source and/or said second light source, the spectral composition of said first light source and/or said second light source, and the intensity of said first light source and/or said second light source.” <u>Broeng</u> at paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.”
a second control panel coupled to the second light therapy device, the second control panel comprising a second input button.	<u>Broeng</u> at paragraph 0112 teaches: “The device according to any one of embodiments 1-88, wherein said device comprises a controller that controls one or more of the intensity of said first light source and/or said second light source, the blinking rate of said first light source and/or said second light source, the phase of said first light source and/or said second light source, the spectral composition of said first light source and/or said second light source, and the intensity of said first light source and/or said second light source.” <u>Broeng</u> at paragraph 0184 teaches:

	“FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.”
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Broeng discloses each and every limitation of claim 7 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 7 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 7 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 7 should be reexamined and found to be unpatentable.

10. Claim 8 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

8. The light therapy system of claim 7, wherein the first input button comprises at least one of a time button, a play/pause button, and a mode button.	<u>Broeng</u> teaches the features of claim 7. See section IV. 9 above. <u>Broeng</u> at paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue
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	115, and the like.”
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Broeng discloses each and every limitation of claim 8 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 8 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 8 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 8 should be reexamined and found to be unpatentable.

11. Claim 9 of Nelson should be rejected under 35 USC §103(a) as being obvious over Broeng in view of Beckman.

9. The light therapy system of claim 7, wherein the first control panel comprises a first display configured to indicate a treatment time, and the second control panel comprises a second display configured to indicate the treatment time.	<u>Broeng</u> teaches the features of claim 7, see above. <u>Beckman</u> at paragraph 0118 teaches: “Another embodiment of the present disclosure is directed to a portable, high-powered light emitting diode photobiology device for use in phototherapy applications and treatment of biological tissues. The device may include a plurality of light emitting diodes, each of said light emitting diodes having an input power rating greater than 1 and less than 10 watts and a preselected angle of tilt. Additionally, there may be a plurality of optics, each optic comprising a reflector, associated with one of said light emitting diodes and providing dispersion angles of 45-90 degrees, for enhancing light intensity. There may further be a user control area providing indicators and switches by which a user may select and confirm desired treatment parameters. The device may also include a housing substantially enclosing and retaining said light emitting diodes, optics and user control area. There may also be an optical face substantially integrated with said housing to
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	provide a smooth surface toward the area of treatment, said optical face comprising a diffuser for uniform dispersion of light.”
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The combination of Broeng and Beckman disclose each and every limitation of claim 9 as set forth in the chart above, and as described in detail at Section III above. Alternatively, the combination of Broeng and Beckman teach that the functionality of each of the limitations of claim 9 were known in the art. Therefore, a reasonable examiner would consider the teachings of Broeng and Beckman to be important in deciding whether or not the claim is patentable.

Neither Broeng or Beckman was cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 9 would have been obvious in light of the combination of Broeng and Beckman. Requestor submits that claim 9 should be reexamined and found to be unpatentable.

12. Claim 10 of Nelson should be rejected under 35 USC §103(a) as being obvious over Broeng in view of Beckman.

10. The light therapy system of claim 7, wherein the first control panel is coupled to a side surface of the first housing, and the second control panel is coupled to a side surface of the second housing.	<u>Broeng</u> and <u>Beckman</u> teach the features of claim 7, see above. <u>Beckman</u> at paragraph 0053 teaches: “The performance of a fan 190 is improved through the provision of depicted vents 191 formed in the housing 20 adjacent to the fan 190. A user control area 200 is provided with a layout and configuration that is practical, easy to clean and easy to use. User indicators 210 provide the user with information about the device status and control. The power switch 220 enables a user to easily turn the device 10 on and off. The timer switch 260 and the OK switch 250 are depicted in convenient and stylish arrangement with the first switch 230 and the second switch 240. A plurality of indicator lights 270 may be coupled to one or more other controls to improve feedback to a user.”
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The combination of Broeng and Beckman disclose each and every limitation of claim 10 as set forth in the chart above, and as described in detail at Section III above. Alternatively,

the combination of Broeng and Beckman teach that the functionality of each of the limitations of claim 10 were known in the art. Therefore, a reasonable examiner would consider the teachings of Broeng and Beckman to be important in deciding whether or not the claim is patentable.

Neither Broeng or Beckman was cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 10 would have been obvious in light of the combination of Broeng and Beckman. Requestor submits that claim 10 should be reexamined and found to be unpatentable.

13. Claim 11 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

11. The light therapy system of claim 7, further comprising: a first pair of indication lights coupled to the first control panel and communicatively coupled to the first input button, the first pair of indication lights configured to indicate whether the first plurality of lights is emitting red light, infrared light, or both; and a second pair of indication lights coupled to the second control panel and communicatively coupled to the second input button, the second pair of indication lights configured to indicate whether the second plurality of lights is emitting red light, infrared light, or both.	<u>Broeng</u> teaches the features of claim 7. See above. <u>Broeng</u> at paragraph 0072 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0175 teaches: “The terms “flickering” or “blinking”, or “stroboscopic” when used herein with respect to a light source or a component of a light source indicates that the light source or the component of the light source alternates between two different brightness states (e.g., a high state and a low state) in at least one spectral component. In certain embodiments the light source, or alternates between a high state and a low state in all spectral components emitted by the light, although the brightness/intensity of the high and low state may differ in different spectral components. In certain embodiments the light source alternates between two different
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	brightness states in all visible spectral components of the light source. In certain embodiments the light source alternates between an on state and an off state. In certain embodiments the light source, or a spectral component thereof, alternates between a “high” illumination state (e.g., full on/brightness) and a lower illumination state. In certain embodiments the lower state has a brightness that is about 75% or less, or about 70% or less, or about 60% or less, or about 50% or less, or about 40% or less, or about 30% or less, or about 20% or less, or about 10% or less, or about 5% or less, or about 3% or less, or about 1% or less, than the high state in at least one spectral component.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.” <u>Broeng</u> at paragraph 0184 teaches: “FIG. 1 schematically shows one illustrative, but non-limiting embodiment of a phototherapy device described herein. As illustrated the device 100 comprises a first light source 101 comprising lamps 103, 104, and 105, a second light source 102 comprising lamps 106 and 107, a diffuser 108, a controller 110 comprising controls for one or more of on/off and/or brightness 112, blink frequency 113, phase and/or duty cycle 114, color temperature and/or hue 115, and the like.” <u>Broeng</u> at paragraph 0267 teaches: “In this regard, it is noted that in certain embodiments the controller is integral to the device (e.g., incorporated into the housing of the device), while in other embodiments,
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	the controller may be remote from the device and coupled by a control cable or cables ((see, e.g., 109 in the illustrative, but non-limiting embodiments shown in FIG. 1). In other embodiments the controller may control the phototherapy device through a radio link, a light (e.g., infra-red link), via a Bluetooth link, and via a WiFi link. In certain embodiments the controller comprises an App on a cell phone, tablet, or computer. Thus, in certain embodiment, the controller may be accommodated in a housing separate from the phototherapy device housing. For example, the controller may reside in a separate room of a building comprising a plurality of rooms, each of which contains a phototherapy device controlled by the controller, e.g. in response to ambient light intensity, e.g., as sensed by one or more light sensors as described above and/or possibly, or in response to the time of day.”
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Broeng discloses each and every limitation of claim 11 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 11 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 11 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 11 should be reexamined and found to be unpatentable.

14. Claim 12 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

12. The light therapy system of claim 11, wherein the first pair of indication lights comprises a first indication light and a	<u>Broeng</u> teaches the features of claim 11, see above. <u>Broeng</u> at paragraph 0175 teaches: “The terms “flickering” or “blinking”, or
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second indication light.	“stroboscopic” when used herein with respect to a light source or a component of a light source indicates that the light source or the component of the light source alternates between two different brightness states (e.g., a high state and a low state) in at least one spectral component. In certain embodiments the light source, or alternates between a high state and a low state in all spectral components emitted by the light, although the brightness/intensity of the high and low state may differ in different spectral components. In certain embodiments the light source alternates between two different brightness states in all visible spectral components of the light source. In certain embodiments the light source alternates between an on state and an off state. In certain embodiments the light source, or a spectral component thereof, alternates between a “high” illumination state (e.g., full on/brightness) and a lower illumination state. In certain embodiments the lower state has a brightness that is about 75% or less, or about 70% or less, or about 60% or less, or about 50% or less, or about 40% or less, or about 30% or less, or about 20% or less, or about 10% or less, or about 5% or less, or about 3% or less, or about 1% or less, than the high state in at least one spectral component.”
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Broeng discloses each and every limitation of claim 12 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 12 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 12 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 12 should be reexamined and found to be unpatentable.

15. Claim 13 of Nelson should be rejected under 35 USC §102(a) as being anticipated by

Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

13. The light therapy system of claim 12, wherein the second pair of indication lights comprises a third indication light and a fourth indication light.	<u>Broeng</u> teaches the features of claim 11, see above. <u>Broeng</u> at 0177 teaches: “That a spectral component produced by a second light source is less than a spectral component produced by a first light source indicates that the luminance produced by the referenced spectral component in the second light source is less than the luminance produced by the spectral component in the first light source. In certain embodiments this is measured as the luminance at the wavelength of maximum intensity produced by the lamp(s) providing that spectral component. In certain embodiments this is measured as the luminance integrated across the full wavelength range of the spectral component at issue. In certain embodiments the second light source luminance in the spectral component(s) at issue is less than about 60%, or less than about 50%, or less than about 40%, or less than about 30%, or less than about 20%, or less than about 10%, or less than about 5%, or less than about 3%, or less than about 2%, or less than about 1%. In certain embodiments the second light source provides no illumination in the spectral component of interest.”
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Broeng discloses each and every limitation of claim 13 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 13 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 13 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 13 should be reexamined and found to be unpatentable.

16. Claim 14 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

14. The light therapy system of claim 13, wherein a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light.	<u>Broeng</u> teaches the features of claim 13, see above. <u>Broeng</u> at paragraph 0180 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” (Refer: Page 5, Para 0072) “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.”
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Broeng discloses each and every limitation of claim 14 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 14 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 14 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 14 should be reexamined and found to be unpatentable.

17. Claim 15 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

15. The light therapy system of claim 14, wherein the first indication light is	<u>Broeng</u> teaches the features of claim 14, see above. <u>Broeng</u> at paragraph 0072 teaches:
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configured to indicate whether the first portion of the first plurality of lights is emitting red light, and the third indication light is configured to indicate whether the first portion of the second plurality of lights is emitting red light.	“The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.” <u>Broeng</u> at paragraph 0175 teaches: “The terms “flickering” or “blinking”, or “stroboscopic” when used herein with respect to a light source or a component of a light source indicates that the light source or the component of the light source alternates between two different brightness states (e.g., a high state and a low state) in at least one spectral component. In certain embodiments the light source, or alternates between a high state and a low state in all spectral components emitted by the light, although the brightness/intensity of the high and low state may differ in different spectral components. In certain embodiments the light source alternates between two different brightness states in all visible spectral components of the light source. In certain embodiments the light source alternates between an on state and an off state. In certain embodiments the light source, or a spectral component thereof, alternates between a “high” illumination state (e.g., full on/brightness) and a lower illumination state. In certain embodiments the lower state has a
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	brightness that is about 75% or less, or about 70% or less, or about 60% or less, or about 50% or less, or about 40% or less, or about 30% or less, or about 20% or less, or about 10% or less, or about 5% or less, or about 3% or less, or about 1% or less, than the high state in at least one spectral component.”
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Broeng discloses each and every limitation of claim 15 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 15 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 15 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 15 should be reexamined and found to be unpatentable.

18. Claim 16 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

16. The light therapy system of claim 14, wherein a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light.	<u>Broeng</u> teaches the features of claim 14. See above. <u>Broeng</u> at paragraph 0072 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a
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	plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.”
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Broeng discloses each and every limitation of claim 16 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 16 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 16 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 16 should be reexamined and found to be unpatentable.

19. Claim 17 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

17. The light therapy system of claim 16, wherein the second indication light is configured to indicate whether the second portion of the first plurality of lights is emitting near infrared light, and the fourth indication light is configured to indicate whether the second portion of the second plurality of lights is emitting near infrared light.	<u>Broeng</u> teaches the features of claim 16. See above. <u>Broeng</u> at paragraph 0072 teaches: “The device of embodiment 50, wherein: said second light source comprises or consists of a lamp that emits primarily a blue/green light, a lamp that emits primarily an orange light, and a lamp that emits primarily a red/far red light; or said second light source comprises or consists of a lamp that emits primarily a green light, and a lamp that emits primarily an orange/red light.” <u>Broeng</u> at paragraph 0180 teaches: “The terms “light source” and “illumination source” are used interchangeably and refer to a device that provides light typically within the visible spectrum for humans. The light source can comprise one or a plurality of lamps and can deliver light comprising, or consisting of, specific spectral components.” <u>Broeng</u> at paragraph 0175 teaches:
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	“The terms “flickering” or “blinking”, or “stroboscopic” when used herein with respect to a light source or a component of a light source indicates that the light source or the component of the light source alternates between two different brightness states (e.g., a high state and a low state) in at least one spectral component. In certain embodiments the light source, or alternates between a high state and a low state in all spectral components emitted by the light, although the brightness/intensity of the high and low state may differ in different spectral components. In certain embodiments the light source alternates between two different brightness states in all visible spectral components of the light source. In certain embodiments the light source alternates between an on state and an off state. In certain embodiments the light source, or a spectral component thereof, alternates between a “high” illumination state (e.g., full on/brightness) and a lower illumination state. In certain embodiments the lower state has a brightness that is about 75% or less, or about 70% or less, or about 60% or less, or about 50% or less, or about 40% or less, or about 30% or less, or about 20% or less, or about 10% or less, or about 5% or less, or about 3% or less, or about 1% or less, than the high state in at least one spectral component.”
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Broeng discloses each and every limitation of claim 17 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 17 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 17 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 17 should be reexamined and found to be unpatentable.

20. Claim 18 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

18. The light therapy system of claim 1, wherein the first switch comprises a first toggle switch and the second switch comprises a second toggle switch.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0052 teaches: “The device according to any one of embodiments 1-32, wherein said device is configured to operate said first light source out of phase with said second light source.” <u>Broeng</u> at paragraph 0232 teaches: “The changes in intensity (and/or spectral composition) of the two light sources (first light source and second delight source) are substantially synchronized/coordinated such that intensity changes (and/or visible color changes) in the first light source are compensated for by intensity changes (and/or visible color changes) in the second light source to provide a combined illumination that is substantially constant (e.g., flicker-free). Thus, as illustrated in FIG. 4A, which shows a schematic illustration of the alternating combination of the two light sources, the light sources are modulated on-off 180 degrees out of phase so that when the first light source is on, the second light source is off. This is also illustrated by the power supply voltage for the two light sources, e.g., LED1 and LED2 shown in FIG. 7. Again, the two voltages are 180 degrees out of phase and therefore, when one of the light sources is “on” the other light source is “off”. When the above four above conditions are fulfilled the two light sources have the same visual appearance and when the lamps compensate for each other's blinking, e.g., as explained above, the blinking will not be visible for the human eye when illuminated by or looking into the phototherapy device.”
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Broeng discloses each and every limitation of claim 18 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the

functionality of each of the limitations of claim 18 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 18 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 18 should be reexamined and found to be unpatentable.

21. Claim 19 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

19. The light therapy system of claim 1, wherein the first light therapy device is mechanically coupled to the second light therapy device.	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above. <u>Broeng</u> at paragraph 0281 teaches: “In certain embodiments the phototherapy device(s) or the first and/or second light sources comprising the phototherapy devices described herein may be configured for mounting proximate, or at, and/or attached to, a frame of a window, for example attached to the frame of the window, the window being mounted in a wall of a room for daylight illumination of the room through the window pane.”
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Broeng discloses each and every limitation of claim 19 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 19 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 19 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 19 should be reexamined and found to be unpatentable.

22. Claim 20 of Nelson should be rejected under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng.

20. The light therapy system of claim 1,	<u>Broeng</u> teaches the features of claim 1. See section IV. 3., Grounds 1-3 above.
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wherein the first light therapy device is remotely located with respect to the second light therapy device.	<u>Broeng</u> at paragraph 0110 teaches: “The device according to any one of embodiments 1-85, wherein said first light source and said second light source are in a single unit or housing.”
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Broeng discloses each and every limitation of claim 20 as set forth in the chart above, and as described in detail at Section III above. Alternatively, Broeng teaches that the functionality of each of the limitations of claim 20 were known in the art. Therefore, a reasonable examiner would consider the teaching of Broeng to be important in deciding whether or not the claim is patentable.

Broeng was not cited in the prosecution of Nelson. The **substantial new question of patentability** is whether claim 20 would have been anticipated or obvious in light of Broeng. Requestor submits that claim 20 should be reexamined and found to be unpatentable.

V. CONCLUSION

As noted herein, none of the above noted references with the exception of Ferguson were cited in the prosecution of Nelson, and each of the references raise a **substantial new question of patentability** for claims 1-20. Accordingly, requestor respectfully requests reexamination of claims 1-20 of U.S. Patent No. 10,639,495 to Nelson, and issuance of a reexamination certificate cancelling these claims.

Respectfully submitted,

/Jason T. Daniel/

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Orlando, FL 32801
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VI. COPIES OF PRIOR ART ATTACHED

U.S. Publication No. 2020/0269065 (“Broeng”) published August 27, 2020.

U.S. Publication No. 2015/0112411 (“Beckman”) published on April 23, 2015.

U.S. Publication No. 2006/0229689 (“Ferguson”) published on October 12, 2006.

U.S. Publication No. 2019/0030359 (“Dijkstra”) published on January 31, 2019.

U.S. Patent No. 10,632,325 (“Lim”) issued April 28, 2020.

U.S. Patent No. 7,932,482 (“Norwood”) Issued April 26, 2011.

VII. COPY OF US PATENT 10,639,495 ATTACHED.

VIII. CERTIFICATION UNDER 37 CFR §1.510(b)(5)

Requestor hereby certifies that a copy of this reexamination request been served in its entirety via USPS Priority Mail to the patent owner at the address as provided for in 37 CFR §1.33(c). The patent Owner’s address was obtained from the USPTO patent assignment database:

JOOVV, INC.
940 Calle Amanecer
Unit d
San Clemente, California 92673

A copy is also served in its entirety via USPS Priority Mail to the correspondent address listed below obtained from the USPTO patent assignment database.

Schwie Law, LLC
445 Minnesota St.
Suite 1500
St. Paul, Mn 55101

IX. CERTIFICATION UNDER 37 CFR §1.510(b)(5)

Requestor hereby certifies that the statutory estoppel provisions of 35 USC 315(e)(1) or 35 USC 325(e)(1) do not prohibit the requestor from filing this Ex Parte Reexamination Request.



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(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

DANIEL LAW OFFICES, PA
605 EAST ROBINSON STREET
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ORLANDO, FL 32801

***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/014,848 .

PATENT UNDER REEXAMINATION 10,639,495 .

ART UNIT 3993 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

/JEFFREY R JASTRZAB/

Order Granting Request For Ex Parte Reexamination	Control No. 90/014,848	Patent Under Reexamination 10639495	
	Examiner JEFFREY R JASTRZAB	Art Unit 3993	AIA (FITF) Status Yes

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed 09/01/2021 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a) ☐ PTO-892, b) ☒ PTO/SB/08, c) ☐ Other: _____

1. ☒ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

/JEFFREY R JASTRZAB/
Reexamination Specialist, Art Unit 399

/BMF/

/EDL/

cc:Requester (if third party requester)

Decision Granting *Ex Parte* Reexamination

A substantial new question of patentability affecting claims 1-20 of United States Patent Number 10,639,495 is raised by the request for *ex parte* reexamination.

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Waiver of Right to File Patent Owner Statement

Patent Owner waived the right under 37 C.F.R. 1.530 to file a Patent Owner Statement in an interview on 9/17/21. A First Office action will follow in due course.

Substantial New Question

The substantial new question of patentability (SNQP) is based on:

US Publication No. 2020/0269065 ("Broeng") filed February 14, 2018, published August 27, 2020;

U.S. Publication No. 2015/0112411 ("Beckman") filed on October 16, 2014, published on April 23, 2015;

U.S. Publication No. 2006/0229689 ("Ferguson") filed on April 7, 2006, published on October 12, 2006;

U.S. Patent No. 10,632,325 ("Lim") filed on November 23, 2015, issued April 28, 2020;

U.S. Publication No. 2019/0030359 ("Dijkstra") filed on October 2, 2018,
published on January 31, 2019; and

U.S. Patent No. 7,932,482 ('Norwood') issued April 26, 2011.
published on January 31, 2019.

A discussion of the specifics now follows:

Prosecution History in Brief

In a first Office action on 12/06/19, the Examiner applied U.S. Patent Publication 2007/0217199 by Adam to then Claims 1, 2, 6, 7 and 9-20 as well as U.S. Patent Publication 2011/0054573 by Mitchell to Claims 1-7, 10 and 11. Also, the Examiner applied a double patenting rejection over parent U.S. Patent No. 10,478,635. Claim 8 was indicated as allowable.

In an interview on 12/27/19, the Examiner discussed the rejection over Adam and how to add Claim 8's subject matter to Claim 1 to make it allowable.

In a subsequent amendment filed on 1/10/20, applicant added the subject matter of Claim 8 to Claim 1 and canceled Claims 12-20 in favor of new claims 21-34 depending from Claim 1. A terminal disclaimer also was subsequently filed to obviate the double patenting rejection and the application was allowed.

Accordingly, it is readily apparent that the concept of a system with two light therapy devices each able to be switched to either of a lead mode and a follow mode was believed to be absent in the art applied by the original Examiner.

Issues Raised by the Requester

The Requester states that a substantial new question of patentability under 35 U.S.C. §103 is raised by the following combinations of references:

Claims 1-8 and 11-20 are stated to be unpatentable under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng;

Claims 9-10 are stated to be unpatentable 35 USC §103(a) as being obvious over Broeng in view of Beckman;

Claim 1 is stated to be unpatentable 35 USC §103(a) as being obvious over Beckman in view of Broeng;

Claim 1 is stated to be unpatentable under 35 U.S.C. § 103(a) over Ferguson in view of Beckman;

Claim 1 is stated to be unpatentable under 35 U.S.C. § 103(a) over Lim in view of Broeng; and

Claim 1 is stated to be unpatentable under 35 U.S.C. § 103(a) over Dijkstra in view of Norwood.

Analysis of the Prior Art Provided in the Request

Broeng:

It is agreed that the consideration of Broeng raises a SNQP as to Claims 1-8 and 11-20 of the '495 Patent.

As pointed out in the request on page 10, Broeng teaches first and second light sources that are operated out of phase.

Broeng was not cited or applied during the original prosecution. Thus the teaching of such out of phase operation of the light sources amounts to a new, non-cumulative technological teaching that was not previously considered and discussed on the record during the prosecution of the '495 patent.

Further, there is a substantial likelihood that a reasonable examiner would consider this teaching important in deciding whether or not these claims are patentable.

Accordingly, Broeng raises a substantial new question of patentability as to Claims 1-8 and 11-20 which question has not been decided in a previous examination of the '495 Patent. It follows from the above discussion that consideration of Broeng in combination with control panel teachings of Beckman also raises a substantial new question as to Claims 9 and 10.

Beckman:

It is agreed that the consideration of Beckman and Broeng raises a SNQP as to Claim 1.

As pointed out in the request on page 18, Broeng teaches first and second light sources that are operated out of phase, while Beckman teaches two pluralities of LEDs.

Neither Broeng nor Beckman was cited or applied during the original prosecution. Thus the teaching of such out of phase operation of the light sources amounts to a new, non-cumulative technological teaching that was not previously considered and discussed on the record during the prosecution of the '495 patent.

Further, there is a substantial likelihood that a reasonable examiner would consider this teaching important in deciding whether or not these claims are patentable.

Accordingly, Beckman in view of Broeng raises a substantial new question of patentability as to Claim 1 which question has not been decided in a previous examination of the '495 Patent.

Ferguson:

It is agreed that the consideration of Ferguson in view of Beckman raises a SNQP as to Claim 1.

As pointed out in the request on pages 29 and 30, Ferguson teaches first and second LED panels that are operated as a master and a slave, while Beckman teaches two pluralities of LEDs.

Neither Ferguson nor Beckman was cited or applied during the original prosecution. Thus the teaching of such out of phase operation of the light sources amounts to a new, non-cumulative technological teaching that was not previously considered and discussed on the record during the prosecution of the '495 patent.

Further, there is a substantial likelihood that a reasonable examiner would consider this teaching important in deciding whether or not these claims are patentable.

Accordingly, Ferguson in view of Beckman raises a substantial new question of patentability as to Claim 1 which question has not been decided in a previous examination of the '495 Patent.

Lim:

It is agreed that the consideration of Lim in view of Broeng raises a SNQP as to Claim 1.

As pointed out in the request on pages 42- 18, Lim teaches a system with multiple irradiation units that are operated out of phase, while Broeng teaches first and second light sources that are operated out of phase.

Neither Lim nor Broeng was cited or applied during the original prosecution. Thus the teachings of multiple units and out of phase operation of the light sources amounts to new, non-cumulative technological teachings that were not previously considered and discussed on the record during the prosecution of the '495 patent.

Further, there is a substantial likelihood that a reasonable examiner would consider this teaching important in deciding whether or not these claims are patentable.

Accordingly, Lim in view of Broeng raises a substantial new question of patentability as to Claim 1 which question has not been decided in a previous examination of the '495 Patent.

Dijkstra:

It is agreed that the consideration of Dijkstra and Norwood raises a SNQP as to Claim 1.

As pointed out in the request on pages 55-59, Dijkstra teaches first and second light therapy systems that are operated in synchrony and can be used in a master/slave configuration, while Norwood teaches a switching arrangement for master/slave selection.

Neither of Dijkstra nor Norwood was cited or applied during the original prosecution. Thus the teachings of two sources in synchrony that can be used in a master/slave configuration, and a switching arrangement for master/slave selection amount to new, non-cumulative technological teachings that were not previously considered and discussed on the record during the prosecution of the '495 patent.

Further, there is a substantial likelihood that a reasonable examiner would consider this teaching important in deciding whether or not these claims are patentable.

Accordingly, Dijkstra and Norwood raises a substantial new question of patentability as to Claim 1 which question has not been decided in a previous examination of the '495 Patent.

Service of Papers

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper proposed amendments in reexamination proceedings.

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of prosecution). Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 10,639,495 throughout the course of this reexamination proceeding. Likewise, if present, the third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

All correspondence relating to this *ex parte* reexamination proceeding should be directed as follows:

By **U.S. Postal Service Mail** to:

Mail Stop *Ex Parte* Reexam
ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By EFS: Registered users may submit via the electronic filing system EFS-Web, at <https://efs.uspto.gov/efile/myportal/efs-registered>.

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand to: Customer Service Window
Randolph Building
401 Dulany St.
Alexandria, VA 22314

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Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7070.

/Jeffrey R. Jastrzab/
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CRU Examiner
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Conferees : /BMF/ and /EDL/



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,848	09/01/2021	10639495	JOOVV.004A.C1.RE	1269
124179	7590	11/03/2021	EXAMINER	
Gallium Law			JASTRZAB, JEFFREY R	
445 Minnesota St				
Suite 1500				
St. Paul, MN 55101				
			ART UNIT	PAPER NUMBER
			3993	
			MAIL DATE	DELIVERY MODE
			11/03/2021	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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605 EAST ROBINSON STREET
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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/014,848 .

PATENT UNDER REEXAMINATION 10,639,495 .

ART UNIT 3993 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

/JEFFREY R JASTRZAB/

Office Action in Ex Parte Reexamination	Control No. 90/014,848	Patent Under Reexamination 10639495	
	Examiner JEFFREY R JASTRZAB	Art Unit 3993	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

- a. ☐ Responsive to the communication(s) filed on _____.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☐ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter.
Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**
If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. ☐ Notice of References Cited by Examiner, PTO-892. | 3. ☐ Interview Summary, PTO-474. |
| 2. ☒ Information Disclosure Statement, PTO/SB/08. | 4. ☐ _____. |

Part II SUMMARY OF ACTION

- 1a. ☒ Claims 1-20 are subject to reexamination.
- 1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
3. ☐ Claims _____ are patentable and/or confirmed.
4. ☒ Claims 1-20 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
1 ☐ been received.
2 ☐ not been received.
3 ☐ been filed in Application No. _____.
4 ☐ been filed in reexamination Control No. _____.
5 ☐ been received by the International Bureau in PCT application No. _____.

* See the attached detailed Office action for a list of the certified copies not received.

9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

Ex Parte Nonfinal Office Action

A substantial new question of patentability affecting claims 1-20 of United States Patent Number 10,639,495 was raised by the request for *ex parte* reexamination in the Order mailed 10/7/2021.

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Proposed Rejections by the Requester Applied - 35 USC §§ 102 and 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Although Dijkstra is not applied to Claims 2-20 in the Request, it is clear that a substantial new question for Claim 1 would also lend itself to a substantial new question for its dependents. Thus Dijkstra has been applied by the Examiner to those claims.

Dijkstra:

Claims 1-20 are rejected under 35 U.S.C. 102(a)(2) as being anticipated by Dijkstra, or in the alternative,

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dijkstra in view of Norwood.

Claim 6 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Dijkstra in view of Broeng, or Dijkstra in view of Norwood in further in view of Broeng.

Claims 10-17 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Dijkstra or Dijkstra in view of Norwood.

As to Claim 1, Dijkstra teaches a light therapy system (e.g. 200 in Fig. 8), comprising: a first light therapy device 200 comprising a first housing 210 and a first plurality of lights (array per [0034]) coupled to the first housing and configured to emit at

least one of red light and near infrared light (at [0059-0063]), wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode (master and slave at [0099],) and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode (Dijkstra states that all devices are the identical a [0096] and states that “*in some systems, a master is elected from a group of eligible devices, with the other devices acting in the role of slaves*” at [0101], those having ordinary skill in the art before the invention would have understood this to mean that there is a switch to enable the preferred mode); and a second light therapy device (other 200 in Figure 8) configured to communicate with the first light therapy device per [0096], the second light therapy device comprising a second housing (see Figure 8), a second plurality of lights coupled to the second housing (see above discussion of the array teaching) and configured to emit at least one of red light and near infrared light (at [0059-0063]), wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode (note above discussion of master and slave modes), and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode (note the above discussion of identical devices, thus each has the inherent switch).

To the extent one might disagree that there is an inherent switch in the two identical Dijkstra therapy devices to enable the described master election from a group of eligible devices, with the other devices acting in the role of slaves, Norwood teaches, in the analogous art of lighting with aromatherapy, a mater/slave 642 switch for controlling the selection of a lead mode (master) and slave mode (slave) such that any

given device can either control, or be a slave to, other lighting devices/diffusers. Given the combined teachings, those having ordinary skill in the art before the invention would have understood how to implement the switching that is inherent in the Dijkstra device, by incorporating the master/slave switch of Norwood in order to enable the required switching capabilities in Dijkstra as a mere substitution of well-established switching arrangements for selection of a master or slave mode.

As to Claim 2, Dijkstra teaches that the first light therapy device and the second light therapy device are configured to communicate directly via a wireless connection at [0096].

As to Claim 3, Dijkstra teaches that the first light therapy device and the second light therapy device are configured to communicate directly via a wired connection at [0096].

As to Claim 4, Dijkstra teaches that the first light therapy device comprises a first plurality of communication ports and the second light therapy device comprises a second plurality of communication ports, the light therapy system further comprising a communication cable having a first end coupled to a first port of the first plurality of communication ports, and a second end coupled to a second port of the second plurality of communication ports. Those having ordinary skill in the art before the invention would have understood that the wired connection embodiment inherently includes such a cable and ports on each device.

As to Claim 5, Dijkstra teaches that a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light. See the discussion at [0059-0063], those having ordinary

skill in the art before the invention would have understood that the wavelength of each therapy device would have inherently been selected based on the patient need. In the alternative, it would have been obvious to do so.

As to Claim 6, Dijkstra teaches that a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light, note the discussion of the array teaching above which would encompass two different portions, each with a plurality of lights that emit infrared light. As an aside, it would appear that this claim should depend from Claim 5 so that a first portion of the plurality of lights is set forth before the second.

Further as to Claim 6, to the extent one might disagree that Dijkstra teaches a second portion of the second plurality of lights is configured to emit near infrared light, Broeng teaches, in the same field of endeavor, a light therapy system with two light sources, each with a plurality of lights at [0180]. Broeng states at [0072] that the lights of the light source can emit a variety different light wavelengths. Given this teaching, it would have been obvious to those having ordinary skill in the art before the invention to have utilized a second portion of the second plurality of lights in Dijkstra to emit near infrared light as merely selecting an optimal wavelength for a desired therapeutic result would have amounted to an obvious choice in engineering design.

As to Claim 7, Dijkstra teaches a first control panel (see user power switch at [0072]) coupled to the first light therapy device, the first control panel comprising a first input button; and a second control panel coupled to the second light therapy device, the second control panel comprising a second input button, since the devices are identical [0096] then the second light therapy device also includes such a switch/control panel.

As to Claim 8, Dijkstra teaches the first input button comprises at least one of a time button, a play/pause button, and a mode button. Dijkstra provides for election of a treatment profile from a memory unit by the user, hence a mode button, at [0078].

As to Claim 9, Dijkstra teaches the first control panel comprises a first display configured to indicate a treatment time, and the second control panel comprises a second display configured to indicate the treatment time. See [0090] and the discussion of a touchscreen display that allows for time input.

As to Claim 10, Dijkstra teaches the first control panel is coupled to a side surface of the first housing, and the second control panel is coupled to a side surface of the second housing. This feature is inherent to the Dijkstra device, but to the extent one might disagree, merely changing the housing shape of the light treatment devices would have amounted to a routine design choice to those of ordinary skill in the art before the invention. A square or rectangular choice would have yielded such a side coupling.

As to Claim 11, Dijkstra teaches a first pair of indication lights coupled to the first control panel and communicatively coupled to the first input button, the first pair of indication lights configured to indicate whether the first plurality of lights is emitting red light, infrared light, or both; and a second pair of indication lights coupled to the second control panel and communicatively coupled to the second input button, the second pair of indication lights configured to indicate whether the second plurality of lights is emitting red light, infrared light, or both. Dijkstra describes a touchscreen display for selecting type of treatment, time and intensity. It is considered inherent that such a display would indicate the types of light used in the treatment. To the extent one might disagree,

merely adding such indicator or “on” lights would have been an obvious design choice to those of ordinary skill in the art before the invention as such “on” lights are typical on electronics in general to establish when a device or portion thereof is in operation.

As to Claims 12 and 13, Dijkstra alone or as modified, teaches the first pair of indication lights comprises a first indication light and a second indication light as established above. The second light source, being identical to the first would thus have a second pair of indication lights comprises a third indication light and a fourth indication light.

As to Claim 14, Dijkstra teaches a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light. Note [0067] which states that the light can be in the range of 100-1600nm.

As to Claim 15, Dijkstra as modified above teaches the first indication light is configured to indicate whether the first portion of the first plurality of lights is emitting red light, and the third indication light is configured to indicate whether the first portion of the second plurality of lights is emitting red light.

As to Claim 16, Dijkstra teaches a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light. Note [0067] which states that the light can be in the range of 100-1600nm.

As to Claim 17, Dijkstra teaches the second indication light is configured to indicate whether the second portion of the first plurality of lights is emitting near infrared light, and the fourth indication light is configured to indicate whether the second portion

of the second plurality of lights is emitting near infrared light. Note [0067] which states that the light can be in the range of 100-1600nm.

As to Claim 18, Dijkstra teaches the first switch comprises a first toggle switch and the second switch comprises a second toggle switch. An on switch is inherently a toggle switch in the broadest sense.

As to Claim 19, Dijkstra teaches the first light therapy device is mechanically coupled to the second light therapy device. The wired option amounts to a mechanical and electrical coupling in the broadest sense. (At [0096])

As to Claim 20, Dijkstra teaches the first light therapy device is remotely located with respect to the second light therapy device. The wireless option provides for remote operation of the two light sources. (At [0096])

Proposed Rejections by the Requester Not Applied

Broeng:

Claims 1-8 and 11-20 are stated to be unpatentable under 35 USC §102 as being anticipated by Broeng, or alternatively rejected under 35 USC §103(a) as being obvious over Broeng; and Claims 9-10 are stated to be unpatentable 35 USC §103(a) as being obvious over Broeng in view of Beckman.

As to the sole independent claim, Claim 1, the Request states that the phasing of the light sources amounts to the first light source being configured to operate in at least one of a lead and a follow mode. Since the controller controls the switching, the Examiner agrees that this would amount to the controller being in a lead mode. Further

in this regard, in the broadest sense, this would mean that the switches of the controller are in effect “configured” for the lead mode. However, the Request applies Broeng to the limitation 1j. in the claim charts as teaching that when “*when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device*”. Paragraphs 0052 and 0233-0234 are singled out as providing the teaching. While the cited sections teach operating the two light sources out of phase, there is no clear indication that the first device operates in a follow mode performing operations “*as instructed by the second light therapy device*”. Plainly, there is no indication in Broeng that the second device can control the first. The specification of Broeng describes a single controller 110 for controlling both light sources. At [0234] Broeng states that the light sources are modulated by a square wave source. Those having ordinary skill in the art before the invention would have understood this to mean a single controller controls both light sources. As such, it would not be fair to state that Broeng explicitly or inherently meets this limitation. The Request also infers that Broeng renders the claim obvious: “*Alternatively, Broeng teaches that the functionality of each of the limitations of claim 1 were known in the art.*” This does not amount to a clear application of the art to the claim, but rather is a blanket statement of obviousness. Accordingly, it would not be fair to state that Broeng alternatively renders the claim obvious. It follows from the above discussion that dependent claims 9 and 10 are also not rejectable over Broeng.

Beckman:

Claim 1 is stated to be unpatentable 35 USC §103(a) as being obvious over Beckman in view of Broeng.

As to Claim 1, the Request, like in Broeng, applies the out of phase light control as meeting the lead and follow modes of the two Beckman light sources as instructed by the controller or MCU 130. The first and second switches are stated to correspond the first switch 230 and second switch 240 and the first light therapy device is stated to have a first housing and the second light therapy device to have a second housing. As can be seen in Figure 7, the housings are 354a and 354b. However, when applying Beckman to the second light therapy device comprising a second switch, the same switches that are on the overall device housing as seen in Figure 2 are stated to meet the limitation. The Examiner disagrees. The switches are all on the main device housing, thus it would not be fair to state that the first and second light therapy devices have their own switches. Notably there are no switches on the housings 354a or 354b in Figure 7. In addition, the Request applies the same Broeng teachings to limitation 1j. For the same reasons as above, Broeng fails to teach that the first light therapy performs operations as instructed by the second light therapy device, as there is only one controller 130 present in Beckman and 110 in Broeng. The Request also infers that Beckman in view of Broeng renders the claim obvious: *"Alternatively, the combination of Beckman and Broeng teaches that the functionality of each of the limitations of claim 1 were known in the art."* This does not amount to a clear application of the art to the

claim, but rather is a blanket statement of obviousness. Accordingly, it would not be fair to state that Beckman in view of Broeng the lacking portions renders the claim obvious.

Ferguson:

Claim 1 is stated to be unpatentable under 35 U.S.C. § 103(a) over Ferguson in view of Broeng (it is noted that the Request states Beckman, but applies Broeng, thus Broeng will be addressed).

As to Claim 1, it is agreed that Ferguson teaches a master and a slave unit and that Broeng would render obvious the use of a switch to control the phase and thus the combination would enable at least one of a lead mode and a follow mode. The Request applies Ferguson to the limitation 1j. in the claim charts as teaching that when “*the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device*” the Request applies paragraph [0025] of Ferguson, but the cited passage does not teach that the slave unit (second light therapy device) can control the master unit (first light therapy device). While Ferguson does allow for the possibility of an on/off switch on more than one panel at [0054], there is no indication that the any panel other than the master can control the master. Additionally the Request relies upon paragraph [0055] of Ferguson, but this section only references the single on/off switch option. Thus it would not be fair to state that Ferguson alone teaches such a second light therapy device able to operate in the lead mode and able to instruct the first light therapy device. The Request also infers that Broeng in view of Ferguson renders the claim obvious: “*Alternatively, the combination of Broeng and*

Ferguson teach that the functionality of each of the limitations of claim 1 were known in the art.” This does not amount to a clear application of the art to the claim, but rather is a blanket statement of obviousness. Accordingly, it would not be fair to state that Broeng in view of Ferguson renders the claim obvious.

Lim:

Claim 1 is stated to be unpatentable under 35 U.S.C. § 103(a) over Lim in view of Broeng.

As to Claim 1, the Request applies the out of phase teaching of Broeng to Lim to teach the one of a lead mode and follow mode of the second light therapy device (Request at 1g.) and to the first light therapy device operating in the follow mode, performing operations as instructed by the second light therapy device. For the reasons set forth above, Broeng does not enable these limitations of the claim and as such, the combination cannot render the claim obvious. The Request also infers that Lim in view of Broeng renders the claim obvious: *“Alternatively, the combination of Lim and Broeng teach that the functionality of each of the limitations of claim 1 were known in the art.”* This does not amount to a clear application of the art to the claim, but rather is a blanket statement of obviousness. Accordingly, it would not be fair to state that Lim in view of Broeng renders the claim obvious.

Service of Papers

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on

the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550(f).

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper proposed amendments in reexamination proceedings.

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of

prosecution). Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 10,639,495 throughout the course of this reexamination proceeding. Likewise, if present, the third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

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Alexandria, VA 22313-1450

By EFS: Registered users may submit via the electronic filing system EFS-Web, at <https://efs.uspto.gov/efile/myportal/efs-registered>.

By FAX to: (571) 273-9900
Central Reexamination Unit

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Alexandria, VA 22314

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Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7070.

/Jeffrey R. Jastrzab/
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Conferees : /BMF/ and /E.D.L/
SPRS, Art Unit 3993



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,848	09/01/2021	10639495	JOOVV.004A.C1.RE	1269
124179	7590	12/07/2021	EXAMINER	
Gallium Law			JASTRZAB, JEFFREY R	
445 Minnesota St				
Suite 1500				
St. Paul, MN 55101				
			ART UNIT	PAPER NUMBER
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The time period for reply, if any, is set in the attached communication.



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/014,848 .

PATENT UNDER REEXAMINATION 10639495 .

ART UNIT 3993 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

/JEFFREY R JASTRZAB/

Reexam Interview Summary

Patent Owner's representatives discussed the attached Interview Agenda in depth. In particular, proposed claim 1 was presented in various forms with substantive additions and deletions.

As to Option A: The PTO Panel advised that it was acceptable to add subject matter to Claim 1; however, it is not acceptable to broaden its scope per MPEP 2258/35 USC 305.

Regarding the proposed amendments addressing physical contact, the Panel advised that additional structure might be necessary to define over known wired connections and Lim Figures 20-25, which show a harness or frame that connects light treatment devices and which surround a portion of a body to be treated. It was agreed in general that changes regarding the housings being connected on a side would define over the wired connections known in the art, and which would obviously define over the separate housings of Lim.

As to Option B: A similar comment applies regarding broadening here.

Regarding the time and intensity arguments, the panel offered that Dijkstra teaches a touch screen, which would inherently have virtual buttons to control these parameters and further teaches that the units are identical at [0096]. Patent Owner's representatives stated that physical buttons have advantages over a touch screen (such as cost) and that it would be difficult to add such buttons in place of the touch screen of Dijkstra. The panel disagreed and stated that it would maintain rejections of obviousness to the proposed amendments.

As to Option C1: A similar comment applies regarding broadening here.

As to the proposed amendments regarding the shape of the housing to place the control panel on a side, the panel indicated that while this may define over Dijkstra alone, there is an existing obviousness rejection over Dijkstra to change in shape. Lim, which has light therapy devices that are hexagon, which has top/bottom/sides, was offered as an example of the fact that the art was well aware of light therapy devices of different shapes. Patent Owner's representatives indicated that such a change to Dijkstra would destroy the reference. The Panel indicated that arguments and evidence to support would be fully considered if filed but that the initial indication would be that obviousness rejections would be maintained.

As to Option C2: Similar comments apply as above to Option B regarding the touch screen display.

As to Options C3 and C3 (1): Similar comments apply as above to Option B regarding the touch screen display.

Option C3 (2): The panel indicated that it is inherent that Dijkstra has an on/off switch, which amounts to a play/pause button in the broadest sense.

Option C3 (3) was not specifically discussed.

All correspondence relating to this *ex parte* reexamination proceeding should be directed as follows:

By U.S. Postal Service Mail to:

Mail Stop *Ex Parte* Reexam
ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By EFS: Registered users may submit via the electronic filing system EFS-Web, at
<https://efs.uspto.gov/efile/myportal/efs-registered>

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand to: Customer Service Window
Randolph Building
401 Dulany St.
Alexandria, VA 22314

For EFS-Web transmissions, 37 CFR 1.8(a)(1)(i) (C) and (ii) states that correspondence (except for a request for reexamination and a corrected or replacement request for reexamination) will be considered timely filed if (a) it is transmitted via the Office's electronic filing system in accordance with 37 CFR 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7070.

/Jeffrey R. Jastrzab/
Jeffrey R. Jastrzab
Reexamination Specialist
AU 3993
(571) 272-4947

Conferees: /BMF/ and /E.D.L/
SPRS, Art Unit 3993

<i>Ex Parte Reexamination Interview Summary</i>	Control No. 90/014,848	Patent Under Reexamination 10639495	
	Examiner JEFFREY R JASTRZAB	Art Unit 3993	AIA (FITF) Status Yes

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) <u>JEFFREY JASTRZAB, BEVERLY M FLANAGAN</u>	(3) <u>ISABEL FOX</u>
(2) <u>EILEEN LILLIS</u>	(4) <u>WES SCHWIE</u>

Date of Interview: 02 December 2021

Type: a) ☐ Telephonic b) ☒ Video Conference
c) ☐ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owners representative)

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: ` .

Identification of prior art discussed: Dijkstra, Lim .

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
(see attached sheet) .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNERS STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/JEFFREY R JASTRZAB/ Reexamination Specialist, Art Unit 399	/EDL/	/BMF/
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cc: Requester (if third party requester)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor: Scott Nelson

Examiner: Jeffrey R. Jastrzab

Group Art Unit: 3993

Application No.: 90/014,848

Mailing Date: November 3, 2021

Docket No.: JOOVV.004A.C1.RE

Title: PHOTOBIOMODULATION THERAPY SYSTEMS AND METHODS

AGENDA FOR EXAMINER INTERVIEW ON DECEMBER 2, 2021

Dear Examiner Jastrzab:

Thank you for agreeing to speak with me on Thursday December 2th, at 3:00PM EST. In order to have a productive and efficient meeting, we would like to discuss the proposed claim amendments and arguments as shown on the following pages.

PROPOSED CLAIM AMENDMENTS AND REMARKS

Applicant presents the following proposed claim amendments. Options A, B, and C1 represent options for amending Claim 1, while Options C2-C4 represent proposals for new dependent claims.

Option A: Devices physically contacting

A. (Currently amended) A light therapy system, comprising:

a first light therapy device comprising a first housing, ~~and a first plurality of lights coupled to the first housing~~ arranged and configured to emit at least one of red light and near infrared light, ~~and a first control panel coupled to the first housing wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and~~

~~a second light therapy device configured to communicate with the first light therapy device, the second light therapy device comprising a second housing, a second plurality of lights coupled to the second housing arranged and configured to emit at least one of red light and near infrared light, and a second control panel coupled to the second housing wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode, and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,~~

~~wherein when the first light therapy device is arranged and configured to physically contact the second light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.~~

Remarks

- None of the cited references disclose a first light therapy device “arranged and configured to physically contact the second light therapy device,” as recited in proposed amended Claim 1

- The references show multiple devices spaced from one another (e.g., Dijkstra, Ferguson, Lim), or don't disclose multiple devices (e.g., Norwood, Broeng, Beckman)
- Applicant proposes removing some subject matter from Claim 1 (e.g., lead mode and follow mode)

Option B: Control panels with screen showing treatment time

B. (Currently amended) A light therapy system, comprising:

a first light therapy device comprising a first housing, ~~and a first plurality of lights coupled to the first housing~~ arranged and configured to emit at least one of red light and near infrared light, ~~and a first control panel coupled to the first housing wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode;~~ and

a second light therapy device ~~configured to communicate with the first light therapy device, the second light therapy device comprising a second housing, a second plurality of lights coupled to the second housing~~ arranged and configured to emit at least one of red light and near infrared light, ~~and a second control panel coupled to the second housing wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode, and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,~~

wherein the first control panel comprises a first display configured to indicate a first treatment time and the second control panel comprises a second display configured to indicate a second treatment time ~~when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.~~

Remarks

- Dijkstra discloses a “display unit 160” that enables a user to “determine the time and intensity required for the treatment” (see [0090]), but does not further discuss any time indicators on the display unit

Option C1: control panels on side of housing

C1. (Currently amended) A light therapy system, comprising:

a first light therapy device ~~comprising~~ including a first housing comprising a treatment side; a back side located opposite the treatment side; a top side extending between the treatment side and the back side; a bottom side located opposite the top side and extending between the treatment side and the back side; a first side extending between the treatment side and the back side, the first side located between the top side and the bottom side; and a second side located opposite the first side, the second side extending between the treatment side and the back side, the second side located between the top side and the bottom side; and a first plurality of lights-coupled to the first housing arranged and configured to emit at least one of red light and near infrared light from the treatment side;[[,]] and a first control panel coupled to the first side of the first housing wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and

a second light therapy device ~~configured to communicate with the first light therapy device, the second light therapy device comprising~~ including a second housing comprising a treatment side; a back side located opposite the treatment side; a top side extending between the treatment side and the back side; a bottom side located opposite the top side and extending between the treatment side and the back side; a first side extending between the treatment side and the back side, the first side located between the top side and the bottom side; and a second side located opposite the first side, the second side extending between the treatment side and the back side, the second side located between the top side and the bottom side; a second plurality of lights-coupled to the second housing arranged and configured to emit at least one of red light and near infrared light from the treatment side;[[,]] and a second control panel coupled to the first side of the second housing wherein the second light therapy device is configured to operate in at least one of the lead

~~mode and the follow mode, and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode.~~

Remarks

- Dijkstra discloses a “display unit 160...mounted on the outer surface of the light therapy device” (see [0090]) that enables a user to “determine the time and intensity required for the treatment” (see [0090]), but does not further discuss any time indicators on the display unit or more specifically define the location of the display unit
 - Dijkstra fails to specify the location of the display unit beyond “on the outer surface,” whereas Applicant proposes reciting control panels located on a first side of each of a first housing and a second housing
 - The devices disclosed by Dijkstra are cylindrical in shape, and therefore do not teach or disclose a treatment side, back side, first side, second side, top side, or bottom side as similarly recited in Option C1

Option C2: Dependent of C1, include display screen of control panels

C2. (New) The light therapy system of Claim C1, wherein the first control panel comprises a first display configured to indicate a first treatment time and the second control panel comprises a second display configured to indicate a second treatment time.

Remarks

- Dijkstra discloses a “display unit 160” that enables a user to “determine the time and intensity required for the treatment” (see [0090]), but does not further discuss any time indicators on the display unit
- Dijkstra’s disclosure is in terms of a single device, and does not teach a first control panel indicating a first treatment time and a second control panel indicating a second treatment time

Option C3: Dependent of C1, plurality of input buttons

C3. (New) The light therapy system of Claim C1, wherein the first control panel comprises a first plurality of input buttons and the second control panel comprises a second plurality of input

buttons.

Remarks

- Norwood, Broeng, and Beckman disclose buttons but fail to disclose separate control panels, each with its own plurality of input buttons

Option C3(1): Dependent of C3, define first button

C3(1). (New) The light therapy system of Claim C3, wherein the first plurality of input buttons comprises a first time button and the second plurality of input buttons comprises a second time button, wherein each of the first time button and the second time button is configured to select a treatment time.

Remarks

- Norwood, Broeng, and Beckman disclose buttons but fail to disclose separate control panels, each with its own plurality of input buttons
- Further, none of the references specify a first time button and a second time button

Option C3(2): Dependent of C3, define second button

C3(2). (New) The light therapy system of Claim C3, wherein the first plurality of input buttons comprises a first play/pause button configured to cause at least a portion of the first plurality of lights to emit light, and wherein the second plurality of input buttons comprises a second play/pause button configured to cause at least a portion of the second plurality of lights to emit light.

Remarks

- Norwood, Broeng, and Beckman disclose buttons but fail to disclose separate control panels, each with its own plurality of input buttons
- Further, none of the references specify a first play/pause button and a second play/pause button

Option C3(3): Dependent of C3, define third button

C3(3). (New) The light therapy system of Claim C3, wherein the first plurality of input buttons comprises a first mode button configured to cause at least a portion of the first plurality of lights to emit one of red light and near infrared light, and wherein the second plurality of input buttons comprises a second mode button configured to cause at least a portion of the second plurality of lights to emit one of red light and near infrared light.

Remarks

- Norwood, Broeng, and Beckman disclose buttons but fail to disclose separate control panels, each with its own plurality of input buttons
- Further, none of the references specify a first mode button and a second mode button

Applicant again thanks Examiner Jastrzab for his time discussing this matter.

Respectfully submitted,

/Wesley E. Schwie/

Wesley E. Schwie

Reg. No. 64,950

651.428.9828

Date: December 1, 2021

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor: Scott Nelson

Examiner: Jeffrey R. Jastrzab

Group Art Unit: 3993

Ex Parte Reexam No.: 90/014,848

U.S. Patent No.: 10,639,495

Mailing Date: November 3, 2021

Docket No.: JOOVV.004A.C1.RE

Title: PHOTOBIMODULATION THERAPY SYSTEMS AND METHODS

RESPONSE TO NON-FINAL OFFICE ACTION DATED NOVEMBER 3, 2021

To:
Mail Stop – Ex Parte Reexam
ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

REPLY PURSUANT TO 37 CFR § 1.550

In response to the Non-Final Office Action dated **November 3, 2021**, and issued in response to an Ex Parte Reexamination, reconsideration is respectfully requested in view of the amendments and/or remarks as indicated below:

A listing of the Claims begins on page 2 of this paper.

Status of Claims and support for claim changes begin on page 7 of this paper.

Remarks begin on page 8 of this paper.

Patent Owner believes the claims to be in condition for allowance. If Examiner disagrees, then Patent Owner openly invites and encourages Examiner to call Patent Owner's representative Wes Schwie (651.256.9480). Thank you.

CLAIMS

Please amend the claims as indicated below:

1. (Currently amended) A light therapy system, comprising:
a first light therapy device comprising a first housing and a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light, wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, [and]wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode, and wherein the first housing comprises a sidewall;
and
a second light therapy device configured to communicate with the first light therapy device, the second light therapy device comprising a second housing, a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light, wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode, [and]wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode, and wherein the second housing comprises a sidewall,
wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device, wherein the sidewall of the first housing is configured to physically contact the sidewall of the second housing.
2. (Original) The light therapy system of claim 1, wherein the first light therapy device and the second light therapy device are configured to communicate directly via a wireless connection.
3. (Original) The light therapy system of claim 1, wherein the first light therapy device and the second light therapy device are configured to communicate directly via a wired connection.
4. (Original) The light therapy system of claim 1, wherein the first light therapy device

comprises a first plurality of communication ports and the second light therapy device comprises a second plurality of communication ports, the light therapy system further comprising a communication cable having a first end coupled to a first port of the first plurality of communication ports, and a second end coupled to a second port of the second plurality of communication ports.

5. (Original) The light therapy system of claim 1, wherein a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light.

6. (Original) The light therapy system of claim 1, wherein a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light.

7. (Original) The light therapy system of claim 1, further comprising:
a first control panel coupled to the first light therapy device, the first control panel comprising a first input button; and
a second control panel coupled to the second light therapy device, the second control panel comprising a second input button.

8. (Original) The light therapy system of claim 7, wherein the first input button comprises at least one of a time button, a play/pause button, and a mode button.

9. (Original) The light therapy system of claim 7, wherein the first control panel comprises a first display configured to indicate a treatment time, and the second control panel comprises a second display configured to indicate the treatment time.

10. (Original) The light therapy system of claim 7, wherein the first control panel is coupled to a side surface of the first housing, and the second control panel is coupled to a side surface of the second housing.

11. (Original) The light therapy system of claim 7, further comprising:
a first pair of indication lights coupled to the first control panel and communicatively coupled to the first input button, the first pair of indication lights configured to indicate whether the first plurality of lights is emitting red light, infrared light, or both; and
a second pair of indication lights coupled to the second control panel and communicatively coupled to the second input button, the second pair of indication lights configured to indicate whether the second plurality of lights is emitting red light, infrared light, or both
12. (Currently amended) The light therapy system of claim 11, wherein the first pair of indication lights comprises a first indication light and a second indication light, and wherein the second pair of indication lights comprises a third indication light and a fourth indication light.
13. (Canceled).
14. (Currently amended) The light therapy system of claim [13]14, wherein a first portion of the first plurality of lights is configured to emit red light and a first portion of the second plurality of lights is configured to emit red light.
15. (Original) The light therapy system of claim 14, wherein the first indication light is configured to indicate whether the first portion of the first plurality of lights is emitting red light, and the third indication light is configured to indicate whether the first portion of the second plurality of lights is emitting red light.
16. (Original) The light therapy system of claim 14, wherein a second portion of the first plurality of lights is configured to emit near infrared light and a second portion of the second plurality of lights is configured to emit near infrared light.
17. (Original) The light therapy system of claim 16, wherein the second indication light is configured to indicate whether the second portion of the first plurality of lights is emitting near infrared light, and the fourth indication light is configured to indicate whether the second portion of the second plurality of lights is emitting near infrared light.

18. (Original) The light therapy system of claim 1, wherein the first switch comprises a first toggle switch and the second switch comprises a second toggle switch.

19. (Original) The light therapy system of claim 1, wherein the first light therapy device is mechanically coupled to the second light therapy device.

20. (Canceled).

21. (New) The light therapy system of claim 1, wherein the sidewall of the first housing physically contacts the sidewall of the second housing.

22. (New) A light therapy system, comprising:

a first light therapy device including a first housing comprising a treatment side, a back side located opposite the treatment side, a top side extending between the treatment side and the back side, a bottom side located opposite the top side and extending between the treatment side and the back side, a first side extending between the treatment side and the back side wherein the first side is located between the top side and the bottom side, and a second side located opposite the first side wherein the second side extends between the treatment side and the back side and the second side is located between the top side and the bottom side, a first plurality of lights coupled to the first housing and configured to emit at least one of red light and near infrared light from the treatment side, and a first control panel coupled to the first side of the first housing, wherein the first light therapy device is configured to operate in at least one of a lead mode and a follow mode, and wherein the first light therapy device comprises a first switch configured to select at least one of the lead mode and the follow mode; and

a second light therapy device configured to communicate with the first light therapy device, the second light therapy device including a second housing comprising a treatment side, a back side located opposite the treatment side, a top side extending between the treatment side and the back side, a bottom side located opposite the top side and extending between the treatment side and the back side, a first side extending between the treatment side and the back side wherein the first side is located between the top side and the bottom side, a second side located opposite the first side wherein the second side extends between the treatment side and the back side and the

second side is located between the top side and the bottom side, a second plurality of lights coupled to the second housing and configured to emit at least one of red light and near infrared light from the treatment side, and a second control panel coupled to the first side of the second housing, wherein the second light therapy device is configured to operate in at least one of the lead mode and the follow mode, and wherein the second light therapy device comprises a second switch configured to select at least one of the lead mode and the follow mode,

wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device, and when the second light therapy device operates in the lead mode and the first light therapy device operates in the follow mode the first light therapy device performs operations as instructed by the second light therapy device.

STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES

Pursuant to 37 C.F.R. 1.530(e), please see the below listing of status of claims and support for claim changes.

1. Pending – First Amended. The amendments to claim 1 are supported by Figure 1 of U.S. Patent No. 10,639,495.
2. Pending
3. Pending
4. Pending
5. Pending
6. Pending
7. Pending
8. Pending
9. Pending
10. Pending
11. Pending
12. Pending – First Amended. The amendments to claim 12 are supported by claim 13 as issued in U.S. Patent No. 10,639,495.
13. Canceled
14. Pending – First Amended for claim dependency.
15. Pending
16. Pending
17. Pending
18. Pending
19. Pending
20. Canceled
21. Pending – New. New Claim 21 is supported by Figure 1 of U.S. Patent No. 10,639,495.
22. Pending – New. New claim 22 is supported by Figures 1, 3, 4A, and 6A, as well as column 7, lines 49-56 and column 8, lines 24-36 of U.S. Patent No. 10,639,495.

REMARKS

Claims 1-20 were previously issued. Claims 1-20 were rejected. Patent Owner has amended Claims 1 and 12; canceled Claims 13 and 20; and added new Claims 21 and 22. No new matter has been added. Favorable reconsideration and allowance of the reexamination application are respectfully requested.

Claim Rejections Under 35 U.S.C. § 102 and § 103

Claims 1-20 were rejected under 35 U.S.C. § 102(a)(2) as being anticipated by U.S. Publication No. 2019/0030359 (“Dijkstra”). In the alternative, Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dijkstra in view of U.S. Patent No. 7,932,482 (“Norwood”). Claim 6 was alternatively rejected under 35 U.S.C. § 103(a) as being unpatentable over Dijkstra in view of U.S. Publication No. 2020/0269065 (“Broeng”), or over Dijkstra in view of Norwood, in further view of Broeng. Claims 10-17 were alternatively rejected under 35 U.S.C. § 103(a) as being unpatentable over Dijkstra or Dijkstra in view of Norwood. Other references cited in the petition for reexamination include U.S. Publication No. 2015/0112411 (“Beckman”), U.S. Publication No. 2006/0229689 (“Ferguson”), and U.S. Patent No. 10,632,325 (“Lim”).

Patent Owner has amended Claim 1 to recite, in part, “a first light therapy device comprising a first housing...wherein the first housing comprises a sidewall; and a second light therapy device...comprising a second housing...wherein the second housing comprises a sidewall...wherein the sidewall of the first housing is configured to physically contact the sidewall of the second housing.” Patent Owner respectfully asserts that none of the cited references teach, disclose, or make obvious all of the elements of amended Claim 1, in particular the limitation “wherein the sidewall of the first housing is configured to physically contact the sidewall of the second housing.”

As stated on the agenda for the Examiner Interview, three of the references (i.e., Norwood, Broeng, and Beckman) cited in the Office Action fail to disclose multiple devices. Of the references that disclose multiple devices (i.e., Dijkstra, Ferguson, and Lim), Patent Owner respectfully asserts that all three fail to disclose or make obvious physical contact between a sidewall of a first housing and a sidewall of a second housing, as claimed in amended Claim 1.

Dijkstra discloses cylindrical light therapy devices configured to surround a user without physical contact between the devices. Figures 8 and 9 (annotated below) illustrate that the devices

of Dijkstra are intended to be remotely located with respect to each other, such that the devices are able to treat different parts of the body. Figure 8 shows a user located between two light therapy devices, where “the first light therapy device 200 is placed towards the front side of the user and the second light therapy device 200 is placed towards the backside of the user.” (See Dijkstra, [0096].) Dijkstra further states, “The first and second light therapy devices are identical to each other and are being used together to cover the maximum body portion of the user at one time.” (See Dijkstra, [0096]). With respect to Figure 9 Dijkstra states, “the user is surrounded by the plurality of light therapy devices and each light therapy device is projecting light towards a separate treatment portion on the user body.” (See Dijkstra, [0098].)

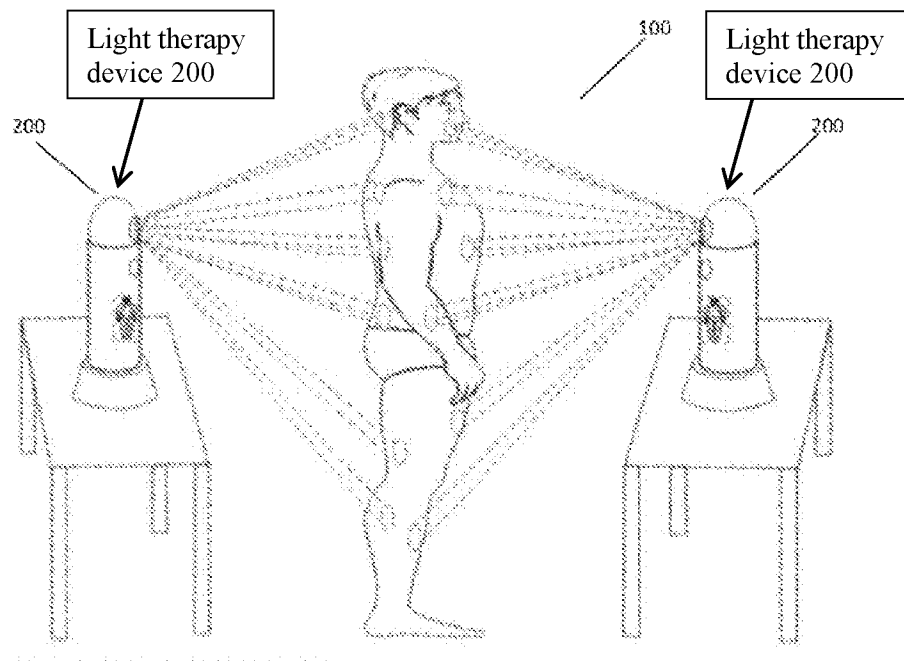


FIG. 8

Annotated Figure 8 from Dijkstra.

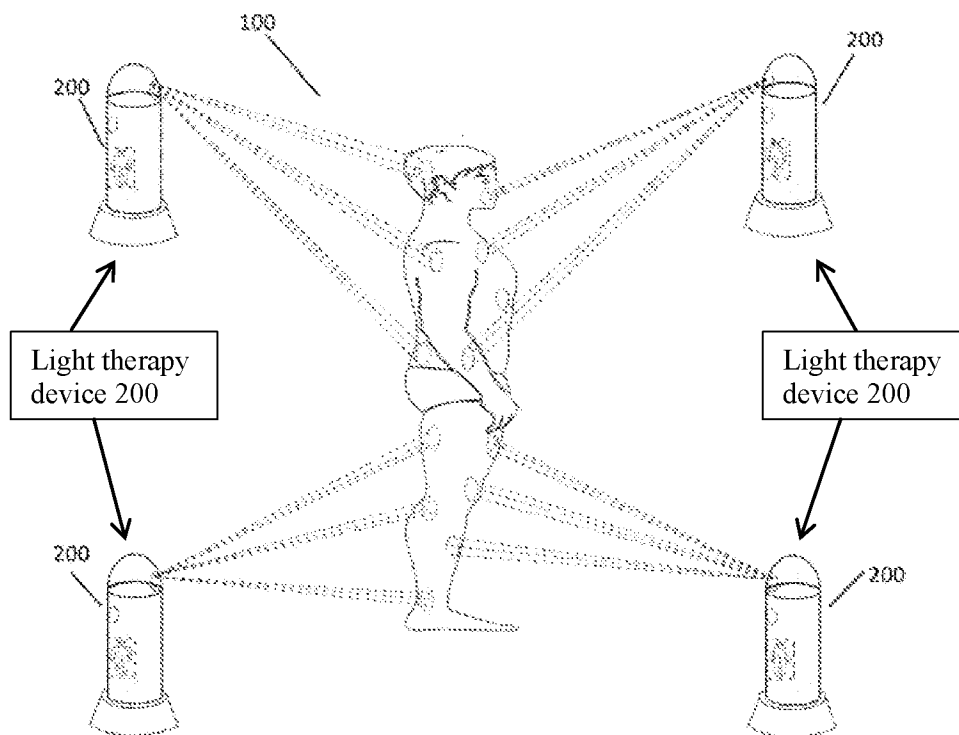


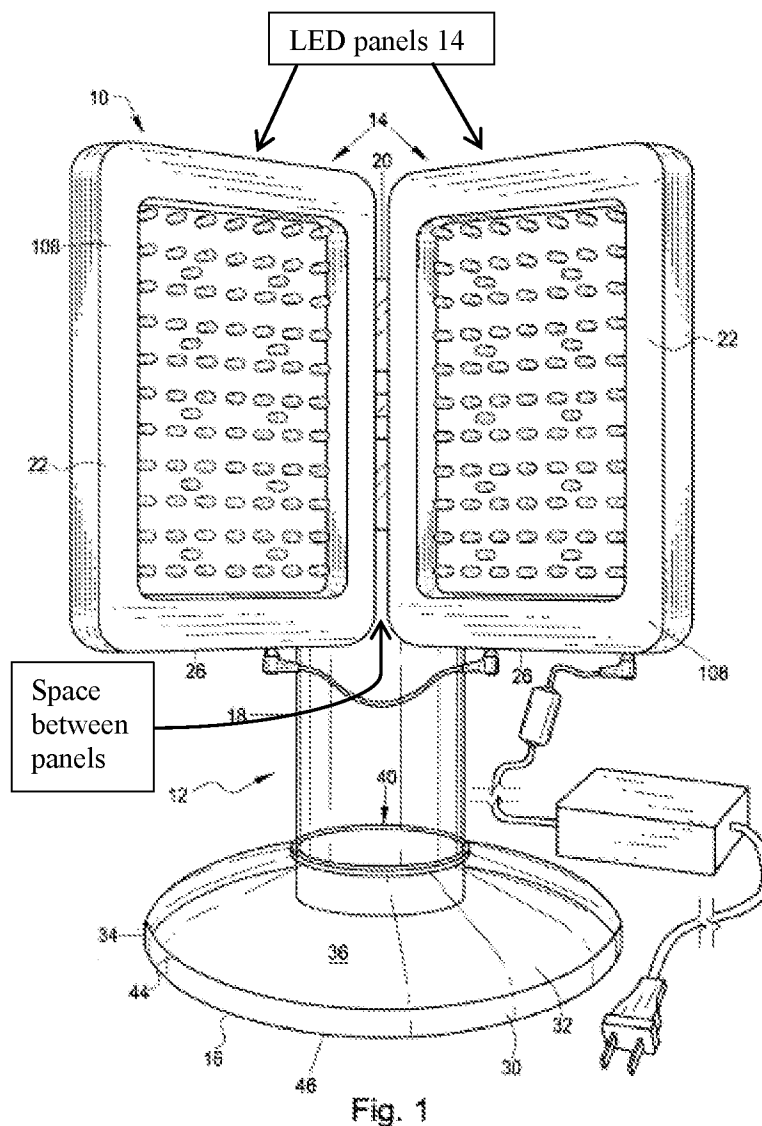
FIG. 9

Annotated Figure 9 from Dijkstra.

Ferguson discloses an “LED therapy device” comprising “left and right LED panels” (see Ferguson, Abstract). The left and right LED panels are coupled to a “panel attachment section 20” and connected via a “power conduit 110” (see Ferguson, Figures 1 and 2, [0047]-[0051], and [0055]); however, the housing of the left LED panel fails to physically contact the housing of the right LED panel (see annotated Figure 1, below). Ferguson discloses specific geometry regarding the panel attachment section: “The left 66 and right 68 portions of the panel attachment section of the particular embodiment create an angle with the middle portion between 125° to 175°. Alternatively, the angle created is 135° to 165°, or from 140° to 160°.” (See Ferguson, [0047].) It should be noted that though a range of possible angles is provided, Ferguson does not disclose that the panel attachment section is adjustable.

Ferguson also recites that, “each of the left 66 and right 68 portions of the panel attachment section 20 include two slots 74....In the particular embodiment, one set of the v-shaped slots 74 mate with flanges 80 located on the back surface 24 of one LED panel 14. The two sets of v-shaped

slots typically mate with two sets of flanges integrated into two LED panels.” (See Ferguson, [0048]-[0049] and annotated Figure 2 below.) Patent Owner respectfully asserts that the fixed geometry of the panel attachment section as well as the coupling of the LED panels to the panel attachment section does not allow for physical contact between the left and right LED panels, as the panels are coupled to a fixed spot (i.e., the v-shaped slots) of each portion of the panel attachment section, and the portions of the panel attachment section are angled with respect to one another at a fixed angle. Accordingly, Ferguson fails to teach or disclose “wherein the sidewall of the first housing is configured to physically contact the sidewall of the second housing,” as recited in Claim 1.



Annotated Figure 1 from Ferguson.

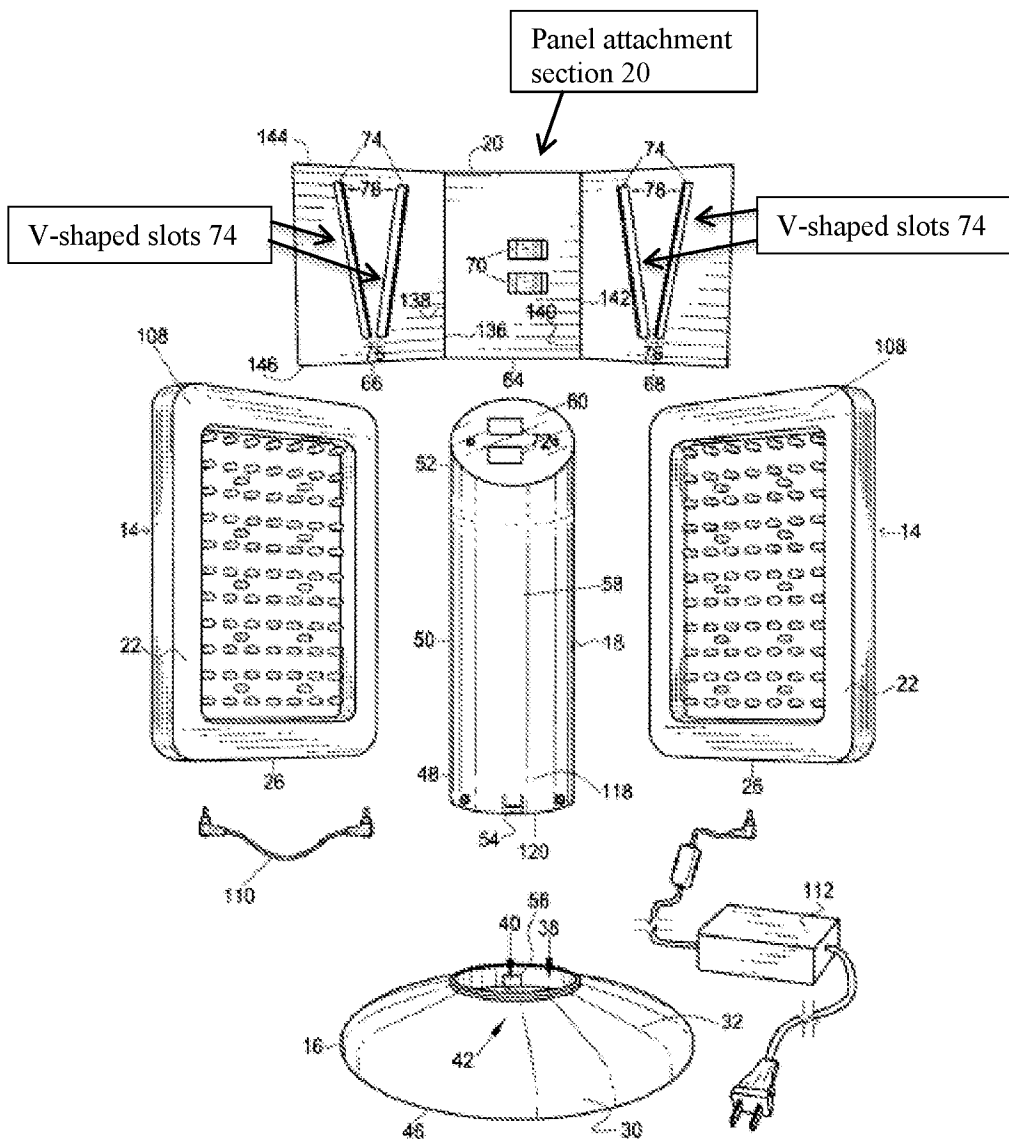


Fig. 2

Annotated Figure 2 from Ferguson.

Lim similarly fails to disclose physical contact between two housings: “In the preferred embodiment shown in FIGS. 20 to 25 and 29, the frame 118 supports four configured irradiation units 108, 110, 112, and 114...” (See Lim, column 30, lines 4-6.) Patent Owner respectfully asserts that Lim fails to disclose irradiation units configured to physically contact. Instead, Lim discloses that frame 118 physically separates the irradiation units. Figures 20-25 and 29 of Lim show the irradiation units physically spaced from one another, not physically contacting one another. With

regard to the placement of the irradiation units, Lim discloses, “The four cluster heads are positioned in the headset 102 such that they target specific cortical hubs in the brain. In the preferred embodiment shown in FIG. 25, the cluster heads are positioned to target the following parts of the brain: A. On the midline, at the front hairline...B. On the midline, halfway between the occipital protuberance and the vertex of the head...C. On the left side of the head, posterior and superior to the borders of the left ear...and D. On the right side of the head, posterior and superior to the borders of the right ear.” (See Lim, column 30, lines 8-30 and annotated Figure 29 below.)

Given the specific and intentional placement of each irradiation unit to target a specific area of the brain, Patent Owner respectfully asserts that a person having ordinary skill in the art would not think to change Lim’s device design so that any of the irradiation units were configured to physically contact one another. Accordingly, Lim fails to teach or disclose “wherein the sidewall of the first housing is configured to physically contact the sidewall of the second housing,” as recited in Claim 1.

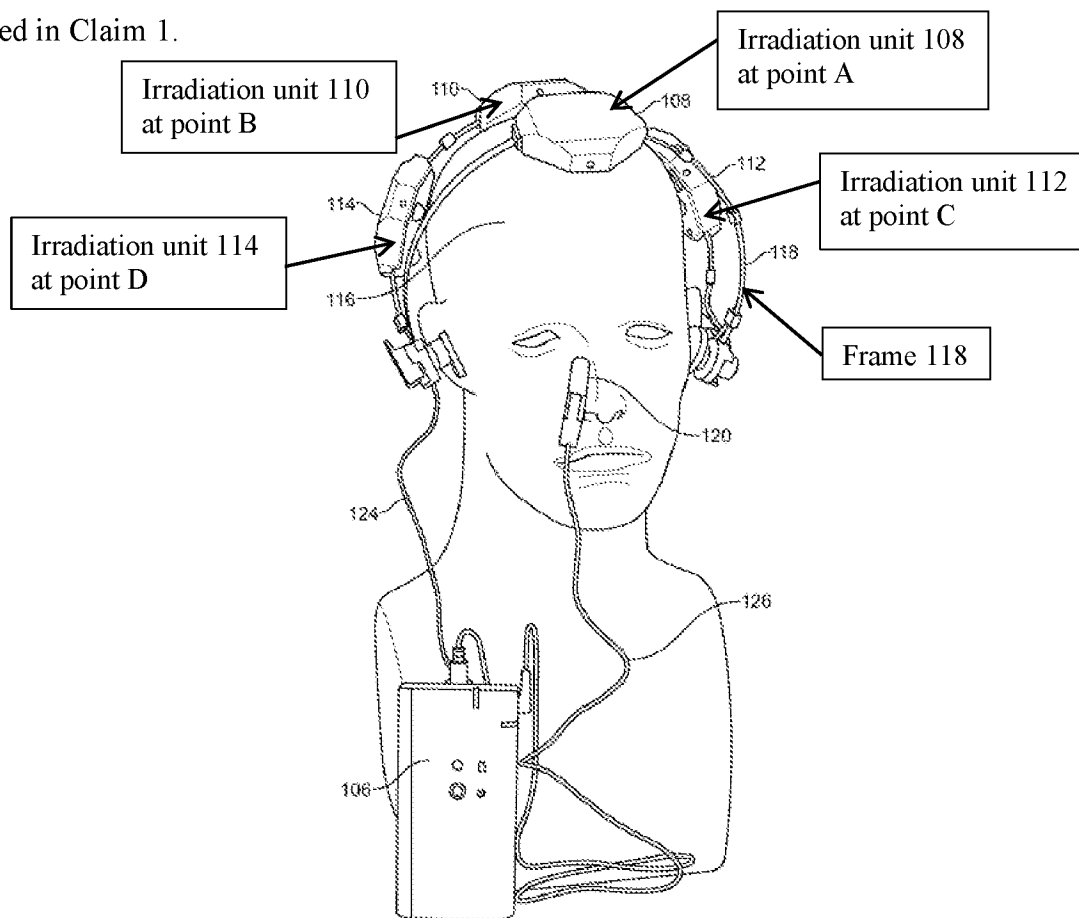


FIG. 29

Annotated Figure 29 from Lim.

For at least the reasons stated above, Patent Owner respectfully asserts that each of the cited references fail to teach, disclose, or make obvious all the elements recited in amended Claim 1. Accordingly, Patent Owner respectfully requests withdrawal of the rejection to Claim 1 (and dependent claims 2-19) under 35 U.S.C. § 102 and § 103.

New Claims

Patent Owner has added new Claims 21 and 22. No new matter has been added.

New Claim 21 is a dependent claim of amended Claim 1, which Patent Owner respectfully asserts has been shown to be allowable over the cited prior art.

New Claim 22 is an independent claim and is supported by Figures 1, 3, 4A, and 6A, as well as column 7, lines 49-56 and column 8, lines 24-36 of U.S. 10,639,495. For at least the following reasons, Patent Owner respectfully asserts that new Claim 22 is allowable over the cited prior art.

New Claim 22 recites, in part, “a first light therapy device including a first housing comprising a treatment side, a back side located opposite the treatment side, a top side...a bottom side located opposite the top side...a first side...and a second side located opposite the first side...” as well as “a second light therapy device including a second housing comprising a treatment side, a back side located opposite the treatment side, a top side...a bottom side located opposite the top side...a first side...and a second side located opposite the first side...” Claim 22 further recites, “a first control panel coupled to the first side of the first housing...and a second control panel coupled to the first side of the second housing...”

As discussed during the Examiner Interview, Examiner Jastrzab expressed obviousness concerns regarding Dijkstra and Lim. Patent Owner respectfully asserts that none of the cited references teach, disclose, or make obvious new Claim 22, in particular the limitations recited above. Dijkstra discloses a cylindrical device “having a rotatable assembly that automatically follows the movement of the desired area of the body needs to be treated.” (See Dijkstra, Abstract.) The rotatable assembly therefore necessitates a round or curved shape (e.g., cylindrical, spherical, etc.). Patent Owner respectfully asserts that it would not be obvious to a person having ordinary skill in the art of light therapy devices to modify Dijkstra’s device to take the shape of a six-sided device, as it would be functionally deficient and aesthetically unappealing. Regarding functionality, Patent Owner respectfully asserts that modifying Dijkstra to implement a six-sided device would

render the rotatable assembly unusable. A round device is designed to rotate whereas a six-sided device is not; therefore, Dijkstra fails to disclose, teach, or make obvious the limitations of Claim 22. Accordingly, Patent Owner respectfully asserts that Claim 22 is allowable over Dijkstra.

Lim is similarly deficient in teaching the light therapy system of Claim 22. As previously mentioned, Lim discloses multiple irradiation units supported by a frame, which takes the form of a headset (see Lim, Figures 20-25 and 29). Patent Owner respectfully asserts that Lim does not disclose a control panel coupled to the housing of the irradiation unit, and instead teaches using a “controller assembly” or smart phone (see Lim, column 29, lines 18-22) to operate the irradiation units. Due to the wearable nature of Lim’s device, Patent Owner asserts that a person having ordinary skill in the art would consider it logical that the controller assembly would be separate from the headset, so that a user could wear Lim’s device and perform operations using the controller assembly without having to remove the headset. Lim fails to disclose, teach, or make obvious the limitations of Claim 22. Accordingly, Patent Owner respectfully asserts that Claim 22 is allowable over Lim.

Furthermore, Patent Owner respectfully asserts that it would not be obvious to combine the teachings of Dijkstra, Lim, and the other cited art to render Claims 21 and 22 obvious. In light of the above remarks, Patent Owner respectfully asserts that Claims 21 and 22 are allowable over the cited art, and respectfully requests allowance of all of the claims, including Claims 21 and 22.

No Disclaimers or Disavowals

Although the Patent Owner has amended the claims to expedite allowance, the Patent Owner is not conceding that any previously pending claims are not allowable. The Patent Owner respectfully reserves the right to traverse characterizations of what any references may show or teach, alone or in combination. The Patent Owner reserves the right to prosecute previously pending claims, claims of broader scope, and claims based on any subject matter supported by the present disclosure or any future disclosure. The Patent Owner has not disclaimed or disavowed any subject matter supported by the present application.

Certification Under 37 CFR §1.248(b)(2)

Patent Owner hereby certifies that a copy of this Response, the Examiner Interview Agenda, and the Examiner Interview Summary have been served in their entirety via USPS First

Class Mail to the Petition Requestor at the address listed in the Request for Ex Parte Reexamination.

Conclusion

The Patent Owner has endeavored to amend the application based on the Examiner's comments to expedite allowance. No new matter has been added. Based on the above remarks and the amendments, the Patent Owner believes the application is in condition for allowance. If any questions remain, the Examiner is invited to contact the undersigned.

Respectfully submitted,

/Wesley E. Schwie/

Wesley E. Schwie

Reg. No. 64,950

651.256.9480

Date: December 15, 2021

Attachments:

-Examiner Interview Agenda

-Examiner Interview Summary