CLAIMS

1. A nail lamp comprising:

a support; and

a plurality of light sources disposed on the support, wherein

each light source is structured to produce light to cure a light-curable nail product,

each light source is a multiple-wavelength LED device, and

each light source includes a plurality of semiconductor LEDs on a single circuit board, with at least one of the semiconductor LEDs having a peak electromagnetic emission intensity at a first wavelength in a range from about 365 nm to about 425 nm, and with at least one other of the semiconductor LEDs having a peak electromagnetic emission intensity at a second wavelength in a range from about 365 nm to about 425 nm, the second wavelength being different from the first wavelength.

2. The nail lamp according to Claim 1, wherein the single circuit board includes four semiconductor LEDs, with three of the four semiconductor LEDs having a peak electromagnetic emission intensity at the first wavelength and with a remaining one the four semiconductor LEDs having a peak electromagnetic emission intensity at the second wavelength.

3. The nail lamp according to Claim 1,

wherein the first wavelength is in a range from about 365 nm to about 385 nm, and

wherein the second wavelength is in a range from about 395 to about 425 nm.

4. The nail lamp according to Claim 1,

wherein the first wavelength is in a range from about 380 nm to about 390 nm, and

wherein the second wavelength is in a range from about 395 to about 425 nm.

5. The nail lamp according to Claim 1, further comprising a controller coupled to the light sources,

wherein the each light source is pulsable between a first intensity and a second intensity, and

wherein the controller is configured to control automatic pulsing of each light source between the first intensity and the second intensity.

6. The nail lamp according to Claim 5, wherein each light source is pulsable according to a pulsing sequence controlled by the controller, the pulsing sequence including:

(a) controlling the light source to operate at the first intensity for a first duration,

(b) controlling the light source to operate at the second intensity for a second duration, and

(c) repeating (a) and (b) in sequence for a predetermined time period.

7. The nail lamp according to Claim 5, wherein each light source is pulsable according to a pulsing sequence controlled by the controller, the pulsing sequence including a duration of pulsed light emission followed by a duration of continuous light emission.

8. The nail lamp according to Claim 1, further comprising a controller coupled to the light sources,

wherein the each light source is pulsable between a first intensity and a second intensity, and

wherein the controller is operable to control the light source to be in a selected mode, including a pulsed mode, a continuous mode, and a mode that combines pulsed light emission and continuous light emission.

9. The nail lamp according to Claim 1, further comprising:

a base coupled to the support such that a space is defined therebetween, the space being sized to accommodate nails on an appendage of a user, and

a reflector connected to the base, the reflector being arranged in an arc between a left portion of the base and a right portion of the base, such that the reflector reflects the light produced by the light sources to a front edge portion of the nails.

10. The nail lamp according to Claim 9, wherein the reflector includes a wall portion and a base portion, the wall portion being inclined at an angle of about 85 degrees to about 100 degrees relative to a surface of the base portion.

11. The nail lamp according to Claim 1, further comprising a plurality of source reflectors, wherein each source reflector is arranged on the support around a corresponding one of the light sources, and is structured to direct light from the corresponding light source onto a corresponding nail on an appendage of a user.

12. The nail lamp according to Claim 11, wherein each of the source reflectors is a frustum reflector with a small end and a large end, each of the small end and large end having an opening shaped as one of: (i) an oval, (ii) a circle, (iii) a square, (iv) a rectangle, (v) an ellipse, and (vi) a polygon.

13. A nail lamp comprising:

a support;

a light source; and

a controller,

wherein the light source is disposed on the support, is configured to produce light to cure a light-curable nail product, and is positioned to direct the light onto a nail on an appendage of a user when the appendage is in a space adjacent the support,

wherein the light source is a multiple-wavelength LED device,

wherein the light source includes a plurality of LEDs, with at least one of the LEDs having a peak electromagnetic emission intensity at a first wavelength, and with at least one other of the LEDs having a peak electromagnetic emission intensity at a second wavelength different from the first wavelength,

wherein the light source is pulsable between a first intensity and a second intensity,

wherein the second intensity is different from the first intensity and may be zero intensity; and

wherein the controller controls pulsing of the light source between the first intensity and the second intensity.

14. The nail lamp according to Claim 13, wherein the controller is operable to control the light source to be in a selected mode, including a pulsed mode, a continuous mode, and a mode that combines pulsed light emission and continuous light emission.

15. The nail lamp according to Claim 13, further comprising:

a base; and

a reflector,

wherein the support is coupled to the base and arranged to define the space therebetween, the space being sized to accommodate therein the nail on the appendage of the user, and

wherein the reflector is connected on a top surface of the base, and is arranged in an arc between a left portion of the base and a right portion of the base, such that the reflector reflects the light produced by the light source to a front portion of the nail.

16. The nail lamp according to Claim 13,

wherein the LEDs of the light source are disposed on a single circuit board,

wherein the first wavelength is in a range from about 365 nm to about 425 nm, and

wherein the second wavelength, which is different from the first wavelength, is in a range from about 365 nm to about 425 nm.

17. The nail lamp according to Claim 16,

wherein the first wavelength is in a range from about 380 nm to about 390 nm, and

wherein the second wavelength is in a range from about 395 to about 425 nm.

18. The nail lamp according to Claim 13, further comprising a source reflector arranged on the support around the light source, the source reflector being structured to direct the light from the light source onto the nail,

wherein the source reflector is a frustum reflector with a small end and a large end, each of the small end and large end having an opening shaped as one of: (i) an oval, (ii) a circle, (iii) a square, (iv) a rectangle, (v) an ellipse, and (vi) a polygon.

19. A nail lamp comprising:

a support;

a light source; and

a controller,

wherein the light source is disposed on the support, is configured to produce light to cure a light-curable nail product, and is positioned to direct the light onto a nail on an appendage of a user when the appendage is in a space adjacent the support,

wherein the light source is pulsable between a first intensity and a second intensity,

wherein the second intensity is different from the first intensity and may be zero intensity; and

wherein the controller controls pulsing of the light source between the first intensity and the second intensity.

20. The nail lamp according to Claim 19, wherein the light source is pulsable according to a pulsing sequence controlled by the controller, the pulsing sequence including any one or a combination of:

(a) a duration of pulsed light emission at a first wavelength,

(b) a duration of pulsed light emission at a second wavelength,

(c) a duration of continuous light emission at the first wavelength, and

(d) a duration of continuous light emission at the second wavelength.