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Paper 20
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JIAWEI TECHNOLOGY (HK) LTD., JIAWEI TECHNOLOGY (USA) LTD., SHENZHEN JIAWEI PHOTOVOLTAIC LIGHTING CO., LTD., ATICO INTERNATIONAL (ASIA) LTD., ATICO INTERNATIONAL USA, INC., CHIEN LUEN INDUSTRIES CO., LTD., INC. (CHIEN LUEN FLORIDA), CHIEN LUEN INDUSTRIES CO., LTD., INC. (CHIEN LUEN CHINA), COLEMAN CABLE, LLC, NATURE'S MARK, RITE AID CORP., SMART SOLAR, INC., AND TEST RITE PRODUCTS CORP.,
Petitioner,

v.

SIMON NICHOLAS RICHMOND,
Patent Owner.

IPR2014-00938
Patent 7,429,827 B2

Before WILLIAM V. SAINDON, JUSTIN T. ARBES and BARRY L. GROSSMAN, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner filed a revised petition to institute an *inter partes* review (Paper 13, "Pet.") of claims 24–35 of U.S. Patent No. 7,429,827 B2 (Ex. 1001, "the '827 patent"). Pet. 1. Petitioner included a declaration of Dr. Peter Shackle (Ex. 1002). Patent Owner filed a Preliminary Response. Paper 19 ("Prelim. Resp.").

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." We have reviewed the Petition, Preliminary Response, and the evidence cited therein. For the reasons discussed below, we determine that Petitioner has demonstrated a reasonable likelihood of showing that claims 24–30 and 35 of the '827 patent are unpatentable. We further determine that Petitioner has not demonstrated a reasonable likelihood of showing that claims 31–34 are unpatentable.

A. Related Matters

Petitioner states that Patent Owner has asserted a number of lawsuits against the Petitioner companies alleging infringement of the '827 patent. Paper 18, 3–4; Paper 17, 3. Petitioner also asserts it is challenging two other patents in the same family as the '827 patent: U.S. Patent No. 7,196,477 (IPR2014-00936) and U.S. Patent No. 8,362,700 (IPR2014-00937). Pet. 5; Paper 17, 2.

The '700 patent is a continuation-in-part of the '827 patent, which is a continuation-in-part of the '477 patent.

B. The '827 Patent (Ex. 1001)

The '827 patent describes a solar powered light that produces light of varying color. Ex. 1001, 1:11–13. According to the '827 patent, producing light

of a varying color is known, and solar powered "garden lights" are known. *Id.* at 1:17–25. The claimed invention "overcome[s] or substantially ameliorate[s] at least one of the . . . disadvantages" of the prior art, which includes "difficulty in adjusting the various lighting functions" and "not producing a uniform desired colour." *Id.* at 1:26–35.

C. Exemplary Claims

Of the claims challenged, claims 24, 27, 32, and 35 are independent. Claims 24 and 32 are reproduced below.

> 24. A lighting device to produce light of varying colour, said device comprising:
> a lens generally enclosing a chamber;
> a circuit including:
> at least two lamps of different colours to produce a desired colour, the lamps being mounted to direct light into said chamber;
> connections for at least one rechargeable battery to power the circuit;
> a solar cell mounted on a surface so as to be exposed to light and operatively associated with the connections to charge the battery;
> a light sub-circuit having an integrated circuit for controlling said lamps to produce lighting effects, and a selection switch, said selection switch being connected to said integrated circuit and operable to select a desired lighting effect; and
> a volatile memory retained for a period of time and associated with said integrated circuit, said memory causing operation of said circuit to produce said lighting effects.
>
> 32. A lighting device to produce light of varying color, said device including:
> a lens;
> a circuit having

at least two lamps of different colors mounted to direct light through said lens,

an activation sub-circuit to provide power to said lamps only at low light levels, and

a light sub-circuit to independently control delivery of power to each of said lamps so as to vary intensity of light emitted over time to produce a continuous color changing cycle,

connections for at least one rechargeable battery to power said circuit, and

at least one solar cell mounted so as to be exposed to light and operatively associated with said connections to charge said battery; and a spike for positioning said connections above a ground surface.

D. Prior Art and Asserted Grounds

References	Basis under 35 U.S.C.	Claims Challenged
Chliwnyj[1], Wu[2], Pu[3], Dowling[4]	§ 102	24–26
Chliwnyj and Wu	§ 103	27–29 and 31–35
Chliwnyj, Wu, and Lau[5]	§ 103	30
Richmond[6] and Shalvi[7]	§ 102	27 and 35

[1] U.S. Patent No. 5,924,784, issued July 20, 1999 (Ex. 1005).
[2] U.S. Patent Application Publication No. US 2003/0201874 A1, published Oct. 30, 2003, filed Apr. 24, 2002 (Ex. 1006).
[3] Chinese Patent Publication No. CN 2522722Y, published Nov. 27, 2002 (Ex. 1008) (certified translation).
[4] U.S. Patent No. 7,064,498 B2, issued June 20, 2006, filed Mar. 13, 2001 (Ex. 1010).
[5] U.S. Patent No. 6,431,719 B1, issued Aug. 13, 2002 (Ex. 1011).
[6] Australian Patent App. No. AU 2002100505 A4, published Nov. 21, 2002 (Ex. 1012).
[7] U.S. Patent No. 6,120,165, issued Sept. 19, 2000 (Ex. 1013).

II. ANALYSIS

A. Petitioner's Prior Civil Action

Under 35 U.S.C. § 315(a)(1), no *inter partes* review may be instituted if a petitioner filed a civil action challenging the validity of a claim of a patent before filing its petition. Patent Owner alleges that Petitioner filed a civil action challenging the validity of at least one claim of the '827 patent before the Petition was filed. Prelim. Resp. 4. That action was voluntarily dismissed under Federal Rule of Civil Procedure 41(a)(1). *Id.* at 4–5. Patent Owner maintains, however, that this dismissal is not effective to remove the jurisdictional bar of § 315(a)(1). *Id.* at 5–15.

In scenarios analogous to this one, panels of the Board have held that these earlier court filings, later dismissed without prejudice, are treated as if they had never existed, and do not bar petitions for *inter partes* review under § 315(a)(1). *See, e.g.*, *Cyanotech Corp. v. Bd. of Trs. of the Univ. of Ill.*, Case IPR2013-00401, slip op. at 9–12 (PTAB Dec. 19, 2013) (Paper 17); *Clio USA, Inc. v. Procter & Gamble Co.*, Case IPR2013-00450, slip op. at 5–8 (PTAB Jan. 9, 2014) (Paper 14); *Butamax™ Adv. Biofuels LLC v. Gevo, Inc.*, Case IPR2013-00539, slip op. at 6–8 (PTAB Mar. 4, 2014) (Paper 9). For the same reasons, we hold that the Petitioner is not barred under § 315(a)(1) because the earlier district court case was dismissed without prejudice under Federal Rule of Civil Procedure 41(a)(1).

B. Claim Construction

We interpret the claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic*

Tech. Inc., 504 F.3d 1249, 1257 (Fed. Cir. 2007). Further, "the specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal." *GE Lighting Solutions, LLC v. Agilight, Inc.*, slip op. 2013–1267 (Fed. Cir. 2014) (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). The standards for lexicography and disavowal are exacting, and require clear intent to define or narrow a term. *Thorner*, 669 F.3d at 1365–66.

Petitioner and Patent Owner propose constructions for "lamp," "desired colour," "varying colour," and "switch being accessible by a user". Pet. 16–17; Prelim. Resp. 20–24. Of those, we do not construe "lamp" or "switch being accessible by a user" because those limitations are not at issue at this time.

1. Desired Colour

The phrase "at least two lamps of different colours to produce a desired colour" is found in independent claim 24. Neither party provides any explanation nor analysis as to what is a "desired colour," but both parties propose a "desired colour" is a color "that is desired by the user or intended by the designer." Pet. 17; Prelim. Resp. 22. We agree, and adopt this construction for purposes of this Decision.

2. Varying Colour

Independent claims 27 and 35 require "at least two lamps of different colours to produce a varying colour." Dependent claim 26 recites that the "desired colour" includes a "varying colour." Independent claims 24 and 32 only mention the term in the preamble: "[a] lighting device to produce light of varying colour."

Petitioner proposes that "varying colour" means that "colors produced change over time by varying the intensity of one or more of the lamps with time,"

but provides no explanation for why we should adopt this construction. Pet. 17. Patent Owner proposes a similar construction but argues that the color must also "continuously" change over time. Prelim. Resp. 22–24. We decline to adopt either construction. We explain our construction first and then turn to why we do not adopt the parties' constructions.

The claims do not shed light on the meaning of "varying colour," other than to say that it is something that the lighting device produces. The term "varying colour" is not defined in the '827 patent, and only appears in the detailed description once: "the battery powers the light circuit during the night to produce light of varying colours and the user can optionally select a desired colour by pushing the push button." Ex. 1001, 7:33–36 (item numbers omitted). Based on the context of this passage, the lighting device must produce light that can be perceived as more than one color, to give effect to the latter portion of the passage (i.e., to allow the user to choose one of the colors).

Another portion of the '827 patent sheds light on the meaning of "varying colour." In the background section, the '827 patent refers to other patents that are known to produce a "variable colour." *Id.* 1:17–20. We have reviewed these patents and do not find sufficient evidence to conclude that "varying colour" has a particular meaning in the art; instead these patents simply describe devices that use LEDs to effect different colors. *See generally* Ex. 3001–3004.[8]

Lastly, we note that the '827 patent describes an exemplary way to effect "varying colour." Specifically, the '827 patent describes how an integrated circuit controls the intensity of light emitted by three LEDs to "produce a constantly changing kaleidoscopic effect" and "cycle[] through the light spectrum" "by

[8] The citation to U.S. Patent No. 6,608,458 appears to be in error, as that patent is directed to an electric motor, and we did not see any discussion of LEDs.

ramping up and ramping down the intensity of light displayed by the LEDs." Ex. 1001, 7:10–18. Notably, the '827 patent does not discuss the "kaleidoscopic effect" or "cycle[]" as being "varying colour." In addition, one may achieve "varying colour" without the particular ramping up and down of intensity example discussed in the specification (e.g., coarse, step-wise intensity changes). We decline to incorporate this exemplary embodiment into the claims to interpret the term "varying colour" to mean a particular way of varying color. *See In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (in declining to limit "hair brush" to scalp hair, the court held that "[a]bsent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.").

Accordingly, on this record, we determine that the broadest reasonable interpretation of "varying colour" in view of the specification is "a perceptible changing of color over time."

We decline to adopt Petitioner's construction because it focuses on how to vary a color rather than what "varying colour" is; the claims are not method claims. We also note that Petitioner's declarant, Dr. Shackle, provides no explanation as to how he arrived at the same construction as Petitioner, and his statement is likewise unpersuasive. *See* Ex. 1002 ¶ 75.

We decline to adopt Patent Owner's construction because we are not persuaded that the color must vary "continuously." The claims do not recite the term "continuously" or include other language that might indicate a need for the color to change "continuously" over time. Further, although not clear from Patent Owner's arguments, or the word "continuously" itself, it appears that by adding the word "continuously," Patent Owner is attempting to limit the claims to a *certain manner* in which a user perceives the *transitions between colors*. *See, e.g.*, Prelim.

Resp. 59–60 (disparaging a product that has "'instantaneous' color changing" as opposed to a "varying color"). As we discussed above, however, the specification of the '827 patent does not use the term "varying colour" to describe color transitions but rather the resulting color (Ex. 1001, 7:33–36, "to produce light of varying color"). Further, the specification of the '827 patent does not contrast lighting devices having different color transition schemes, such as to clue in a person of ordinary skill in the art that particular ways of "varying colours" are or are not countenanced. Accordingly, on this record, we decline to adopt either party's proposed construction of "varying colour."

C. Petitioner's Declarant and the Level of Ordinary Skill in the Art

Patent Owner takes issue with Petitioner's declarant and Petitioner's statement of the level of ordinary skill in the art. Regarding Petitioner's declarant, Patent Owner argues that Dr. Shackle "lacks essential qualifications regarding photovoltaic . . . cells, solar powered lights, or consumer products." Prelim. Resp. 17. Patent Owner argues that his declaration "should be stricken from the record . . . or otherwise not relied upon as competent evidence." *Id.* at 17. Patent Owner's concern is unfounded, as we will assign appropriate weight to testimony based on the specific topic discussed and the qualifications of the declarant regarding that topic.[9] The Board, sitting as a non-jury tribunal with administrative and technical expertise, is well-positioned to determine and assign appropriate weight to evidence presented. *Gnosis S.P.A. v. S. Alabama Medical Science Foundation*,

[9] Dr. Shackle holds degrees in physics and has "over twenty years' experience in the field of lighting electronics, with particular emphasis on [LED] drivers and electronic ballasts," including experience in the electronics industry. Ex. 1002 ¶¶ 2–3. He is also a member of the Institute of Electrical and Electronics Engineers and the Illuminating Engineering Society. *Id.* ¶ 4.

IPR2013-00118, slip op. at 43 (PTAB June 20, 2014) (Paper 64); *see also Donnelly Garment Co. v. NLRB*, 123 F.2d 215, 224 (8th Cir. 1941) ("One who is capable of ruling accurately upon the admissibility of evidence is equally capable of sifting it accurately after it has been received."). At this stage of the proceeding, we evaluate the testimony of Petitioner's declarant solely to determine whether Petitioner has established a reasonable likelihood of prevailing on its asserted grounds of unpatentability.

As to the level of ordinary skill in the art, Petitioner sets forth what it believes to be the level of ordinary skill in the art in terms of academic qualifications. Pet. 7. Patent Owner disagrees with Petitioner, and instead proposes that the level of ordinary skill requires some amount of experience with "industrial design of solar garden lights and physical manufacture of the lights." Prelim. Resp. 19–20 (emphasis omitted). In determining the level of ordinary skill in the art, a court may consider various factors, including "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quoting *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir.1986)). In view of this encompassing approach, we decline to adopt either proposal over the other at this time, and instead consider both as well as the prior art references before us to provide guidance as to the level of ordinary skill in the art, unless otherwise indicated in our analysis. *See id.*; *see also Okajima v. Bourdeau*, 261 F.3d. 1350, 1355 (Fed. Cir. 2001) (the prior art itself can reflect the appropriate level of skill in the art.).

D. Obviousness of Claims 24–26 in View of Chliwnyj, Wu, Pu, and Dowling

1. Overview of References

a. Chliwnyj (Ex. 1005)

Chliwnyj discloses a microprocessor-based simulated electronic flame. Ex. 1005, 5:11–12. The LEDs are a plurality of colors to "enhance[] the effect of flame motion" "due to color changes." *Id.* at 5:15–17, 5:21–25, 6:27–37. The LEDs produce a realistic flame effect by continuously, rather than abruptly, changing the frequency of LED modulation. *Id.* at 7:55–56. The flame effect can mimic a stable flame using small frequency changes, and a flame in the wind using large, random frequency changes. *Id.* at 8:16–34. The individual LEDs are diffused to blend the different colors of light together to give the flame effect. *Id.* at 8:66–9:10.

b. Wu (Ex. 1006)

Wu discloses a solar-powered illumination device. Ex. 1006 ¶ 2. Light-emitting elements provide different colors by mixing various light colors. *Id.* ¶ 22.

c. Pu (Ex. 1008)

Pu discloses a solar-powered illumination device. Ex. 1008, 4.[10] The device cycles through various colors, and a user can lock the device to emit only one of those colors by activating a switch when that color is emitted. *Id.* at 5.

d. Dowling (Ex. 1010)

Dowling discloses a variety of applications for programmable LEDs. Ex. 1010, 4:6–8. A program stored in memory and executed by a processor controls the LEDs. *Id.* at 4:65–67.

[10] Our citations to Pu are to the page numbers stamped on the exhibit.

2. Analysis

Petitioner addresses claims 24–26 in a claim chart. Pet. 18–29. In general, Petitioner cites to Chliwnyj for the limitations directed to the solar-powered lamps, desired colour, and varying colour (*id.*); Wu for the lamps being mounted to direct light into the chamber (*id.* at 21–22); Pu for the switch to select a desired light effect (*id.* at 24–25); and Dowling for a volatile memory to cause the circuit to operate to produce the lighting effects (*id.* at 25–28). Petitioner provides various reasons why it would have been obvious to include the identified features of Wu, Pu, and Dowling with the lamp of Chliwnyj. *Id.* at 29–31. For example, Petitioner asserts that it would have been obvious to a person of ordinary skill in the art at the time of invention to "plug[] together the different known features of the available lighting products." *Id.* at 31 (citing Ex. 1002 ¶ 131). Petitioner identifies that Wu and Pu teach how to produce and select certain lighting effects, while Petitioner identifies that Dowling shows a feature likely present in Chliwnyj anyway. *Id.* at 29–30. On the present record, we agree with Petitioner and conclude it has shown a reasonable likelihood of prevailing in establishing the unpatentability of claims 24–26.

Patent Owner raises two main arguments with respect to this ground. The first is that Chliwnyj does not describe "varying colour" (Prelim. Resp. 28–33), and the second is that Chliwnyj and Pu are not combinable (*id.* at 33–35). We address each argument in turn.

a. "varying colour"

Patent Owner argues that, although the term "varying colour" is found only in the preamble of claim 24, the preamble of claim 24 is limiting. Patent Owner argues that claim 26, which depends from claim 24, specifically includes the term "varying colour," such that "the claimed circuit [of claim 24] must be programmed

to produce a varying color." Prelim. Resp. 28–29 (emphasis removed). Patent Owner's argument is unpersuasive. We agree with Patent Owner that the scope of the device in claim 24 must be broad enough to *encompass* a circuit that produces "varying colour" because claim 26 subsequently requires "varying colour." That does not mean, however, that the device in claim 24 is *restricted to* a circuit that produces "varying colour," as Patent Owner argues, because independent claims are broader than their respective dependent claims. *See* 35 U.S.C. § 112. The body of claim 24 fully sets forth a lighting device, and the preamble merely sets forth the purpose of that device: to produce light of varying colour. Specifically, the two lamps of different colors are what allows the device to produce light of varying color. Accordingly, claim 24 "defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, [thus,] the preamble is not a claim limitation." *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997). Further, we are not apprised of any disclosure in the specification of the '827 patent that would constrain us to read the circuit of claim 24 in the manner proposed by Patent Owner.

Even if the preamble were to be given the weight Patent Owner argues, Petitioner's assertion that Chliwnyj discloses a lamp providing varying colours is persuasive, on this record. *See* Pet. 18–19. Petitioner asserts that the LEDs "enhance the flame motion due to color changes." Pet. 18 (quoting Ex. 1005, 5:18–25). We understand these color changes to be a perceptible changing of color over time of the flame, caused by the summation of the individual LED colors by the diffuser. Ex. 1005, 8:66–9:17 ("The inner diffuser could be flame shaped to combine the light from the individual LEDs into more of a point source."). Thus, on this record, we are persuaded that the changing color of the flame in Chliwnyj is a "varying colour."

b. Combination of Chliwnyj and Pu

Patent Owner's second main argument is that Chliwnyj and Pu are not combinable because, according to Patent Owner, neither reference teaches or suggests to put an accessible switch in a solar-powered eternal-flame memorial (Prelim. Resp. 33) and because Chliwnyj allegedly teaches against such a switch (*id.* at 34–35). We first note that our reviewing courts have held that the obviousness inquiry is not predicated on an explicit teaching, suggestion, or motivation found within the references themselves. *See, e.g.*, *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 419 (2007) (holding a rigid insistence on teaching, suggestion, or motivation is incompatible with its precedent concerning obviousness). In addition, our reviewing court has held that discussions of some ways to solve a problem necessarily do not teach away from other ways to solve that problem, and that a teaching away requires an actual discrediting of the solution claimed. *See, e.g.*, *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) ("A reference does not teach away […] if it merely expresses a general preference for an alternative invention but does not 'criticize, discredit, or otherwise discourage' investigation into the invention claimed.") (quoting *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)). Accordingly, Patent Owner's arguments are not persuasive.

Further, claim 24 merely requires a selection switch, and Petitioner has asserted that Pu teaches a particular switch useful in lighting devices that vary colors to allow a user to select a particular lighting effect. Pet. 24–25, 29–30. Petitioner also asserts that Chliwnyj discloses a user interface for selecting parameters of the flame simulation (i.e., a particular lighting effect). Pet. 25 (citing Ex. 1005, 4:3–5, 14:12–14, 58:56–60). On the record before us, Petitioner has

made a sufficient threshold showing that including a switch to select a lighting effect would have been obvious to a person of ordinary skill in the art.

c. Conclusion for Claims 24–26

Having considered the Petition, Preliminary Response, and the evidence cited therein, we determine that Petitioner has demonstrated a reasonable likelihood of showing that the subject matter of claims 24–26 would have been obvious in view of Chliwnyj, Wu, Pu, and Dowling.

E. Obviousness of Claims 27–29 and 31–35 in View of Chliwnyj and Wu

Independent claims 27 and 35 are directed to a lighting device to produce light of varying color, whereas independent claim 32 is directed to the same, but by producing a "color changing cycle." Given the differences in scope, we address these claims separately.

1. Claims 27–29 and 35

Petitioner asserts that the subject matter of claims 27–29 and 35 would have been obvious in view of Chliwnyj and Wu. Pet. 31–43. Specifically, Petitioner asserts that Chliwnyj describes each feature of the claims except for a lens (*id.* at 31–32, 40), spike/post (*id.* at 32–33, 39–40), and circuit to turn on the light at low light levels (*id.* at 36–37), which Petitioner asserts are described by Wu. *See id.* at 41–43. Petitioner reasons that it would have been obvious to include a lens and spike/post in the lighting device of Chliwnyj because it was well known to mount lighting devices in that manner to illuminate an area. *Id.* at 41–42. Petitioner reasons that it would have been obvious to include a switch to turn on the light only at night because it was well known to provide illumination in low light levels. *Id.* at 42–43.

Having considered the Petition, Preliminary Response, and the evidence cited therein, we determine that Petitioner has demonstrated a reasonable likelihood of showing the subject matter of claims 27–29 and 35 would have been obvious in view of Chliwnyj and Wu.

2. Claims 31–34

Claims 31 and 32 recite that the intensity of the lamps is varied "to produce a continuous color changing cycle." Claims 33 and 34 depend from claim 32. In its claim chart, Petitioner provides citations to various portions of Chliwnyj that allegedly disclose this limitation. Pet. 35–36 (claim 31), 38–39 (claim 32). Petitioner does not provide a claim construction of "color changing cycle," however, nor does Petitioner explain how it believes that term reads on what Chliwnyj discloses. Regarding changing colors, those portions of Chliwnyj cited by Petitioner simply describe that there are color changes. Pet. 38 (citing Ex. 1005, 5:11–17). A "cycle" implies some pattern or scheme; some phenomenon that happens and can happen again.[11] Thus, even if Chliwnyj produces a plurality of colors and we were to consider that to be "changing colors," that does not mean that Chliwnyj produces a color changing *cycle*. The scheme that Chliwnyj uses, cited by Petitioner, is with respect to the individual LEDs, such that the intensity of the individual LEDs varies according to their own schemes. Pet. 36, 38 (citing Ex. 1005, 3:13–21, 5:34–41, 7:55–66). These passages do not speak to their combined effect with respect to their resulting color, and, in fact, Chliwnyj admonishes prior art lights that have a perceptible "pattern" in the overall flame effect, instead

[11] A dictionary definition of "cycle" is: "[a] single complete execution of a periodically repeated phenomenon." *The American Heritage Dictionary of the English Language* (2011) (Ex. 3005).

seeking to simulate a "natural random process." Ex. 1005, 2:1–19, 41–51; *see also* Prelim. Resp. 29–33 (arguing that Chliwnyj produces random color variations).

It is Petitioner's burden to explain how the challenged claims are to be construed and how they read on the prior art. 37 C.F.R. § 42.104(b)(3)–(5). Petitioner has not done so sufficiently on this record with respect to the limitation of claims 31 and 32 requiring a "color changing cycle." Accordingly, Petitioner has not demonstrated a reasonable likelihood of success in showing the subject matter of claims 31–34 would have been obvious in view of Chliwnyj and Wu.

F. Obviousness of Claim 30 in View of Chliwnyj, Wu, and Lau

Claim 30 depends from independent claim 27 and specifies that there are red, blue, and green LEDs. Petitioner asserts that Lau describes independently driven red, blue, and green LEDs. Pet. 43–44. Petitioner asserts that substituting these colors is an equivalent to the colors of Chliwnyj because red, blue, and green can be combined to create any color. *Id.*; *see also* Ex. 1002 ¶¶ 42–44 (explaining how these primary colors can be mixed to create any color). According to Petitioner, "one of ordinary skill in the art would know that using the combination of red, blue, and green light mixed in different amounts can provide essentially the color spectrum of perceivable colors to the human eye." Pet. 44–45 (citing Ex. 1002 ¶¶ 194–97).

Patent Owner argues that Chliwnyj does not consider blue and green LEDs and that their use would have unpredictable results. Prelim. Resp. 48–50. Patent Owner fails to address Petitioner's assertion, however, that red, blue, and green can be used to create any color. Based on the arguments presented in the Petition, we do not understand Petitioner to be proposing, for example, a blue flame. Further, even if Petitioner had so argued, Patent Owner assumes that blue and green flames

"do not simulate or resemble a flame," but flames are well known to be various colors, including blue and green. Lastly, Patent Owner's arguments that neither Chliwnyj nor the cited prior art explicitly suggest or teach modifying Chliwnyj to include different flame colors is contrary to relevant obviousness case law. *See, e.g.*, *KSR*, 550 U.S. at 419 (holding a rigid insistence on teaching, suggestion, or motivation is incompatible with its precedent concerning obviousness); *id.* at 418 ("the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ"); *Perfect Web Tech., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) ("while an analysis of obviousness always depends on evidence . . . it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference").

Having considered the Petition, Preliminary Response, and the evidence cited therein, we determine that Petitioner has demonstrated a reasonable likelihood of showing the subject matter of claim 30 would have been obvious in view of Chliwnyj, Wu, and Lau.

G. Obviousness of Claims 27 and 35 in View of Richmond and Shalvi

This ground is similar to another on which we have instituted, but Petitioner admits it is less complete than that ground. Pet. 52 ("Overall, Chliwnyj provides a more detailed disclosure of the claim limitations [than Richmond]."). In light of our institution of *inter partes* review on the ground of obviousness over Chliwnyj and Wu, we exercise our discretion and decline to institute on this additional ground. 35 U.S.C. § 314(a); 37 C.F.R. § 42.108(a).

H. Secondary Considerations of Non-Obviousness

As part of our analysis, we have considered Patent Owners' assertions of secondary considerations of non-obviousness. Prelim. Resp. 56–60. Patent Owner essentially asserts that an alleged infringer's commercial success demonstrates the commercial success of the claimed invention. *Id.* Although secondary considerations of non-obviousness may defeat an assertion that a claim would have been obvious to a person of ordinary skill in the art, that is not the result here. First, Patent Owner largely attempts to incorporate by reference statements made by a declarant (in a pre-existing declaration), without sufficiently arguing the matter in the Preliminary Response. *See* 37 C.F.R. § 42.6(a)(3) ("Arguments must not be incorporated by reference from one document into another document."). For example, Patent Owner asserts that the alleged infringer's product "embodies and is coextensive with the claimed feature of one or more of the challenged claims," and that this is sufficient to establish nexus. *Id.* at 57. Patent Owner, however, does not include any analysis in the Petition itself to explain why this is the case. Second, even if we were to consider the declarant's statements, they are not sufficient to overcome the "reasonable likelihood" threshold of institution. For example, the declarant bases his opinion on an unduly narrow interpretation of the claims that appears to incorporate limitations involving a particular manner of transitioning between colors. Ex. 2004 ¶¶ 82, 89. As we discussed above in our claim construction of "varying colour," the construction we use for purposes of this decision is broader, and is not limited to any particular way of varying color. Thus, the alleged nexus between the claimed subject matter and the allegedly successful product is insufficient, at this stage and on this record, for us to consider the evidence of secondary considerations as defeating Petitioner's evidence of obviousness.

III.ORDER

In view of the foregoing, it is hereby:

ORDERED that an *inter partes* review of the '827 patent is instituted on the following grounds asserted by Petitioner:

1. Claims 24–26 as obvious in view of Chliwnyj, Wu, Pu, and Dowling;

2. Claims 27–29 and 35 as obvious in view of Chliwnyj and Wu;

3. Claim 30 as obvious in view of Chliwnyj, Wu, and Lau;

FURTHER ORDERED that all other grounds set forth in the Petition are denied;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review of the '827 patent is instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the institution of a trial.

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